**TWO TERM CLASS NUMBER FORMULAE OF
DIRICHLET TYPE**

by

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Abstract

The connection between short character sums and class numbers of imaginary quadratic fields was first studied by Dirichlet in 1839. In 1982, Hudson and Williams [18] defined a *class number formula of Dirichlet type* to be a formula expressing the class number $h(-ep)$, where p is a prime in certain residue classes and e is a positive integer such that $-ep$ is the discriminant of an imaginary quadratic field, as a rational multiple of a sum of the values of the Legendre symbol $\left(\frac{n}{p}\right)$ over those positive integers n in a certain subinterval of $[0, p]$. Such a sum is called a “short character sum.” In 1999, Schinzel, Urbanowicz and Van Wamelen [26] extended the definition of Hudson and Williams to formulae for $h(-e|D|)$, where D is the discriminant of an imaginary quadratic field, in terms of short character sums involving the Kronecker symbol $\left(\frac{D}{n}\right)$. The objective of this thesis is to extend these formulae to determine class number formulae for $h(-e|D|)$ as rational linear combinations of two short character sums.

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Chapter 1

Introduction

The connection between short character sums and class numbers of imaginary quadratic fields was first studied by Dirichlet [7], [8] in 1839. Since that time many authors have found formulae similar to those of Dirichlet, for example Berndt [3], Glaisher [9], Holden [11], [12], [13], [14], [15], [16], [17], Karpinski [20], Lerch [21], [22]. In 1982, Hudson and Williams [18] defined a *class number formula of Dirichlet type* to be a formula expressing the class number $h(-ep)$, where p is a prime in certain residue classes and e is a positive integer such that $-ep$ is the discriminant of an imaginary quadratic field, as a rational multiple of a sum of the values of the Legendre symbol $\left(\frac{n}{p}\right)$ over those positive integers n in a certain subinterval of $[0, p]$. Such a sum is called a short character sum. They wrote a computer program to search for such formulae and found 127 within their computational bounds. A search of the literature showed that 84 of these formulae had previously been published and the remaining 43 appeared to be new.

In 1999, Schinzel, Urbanowicz and Van Wamelen [26] extended the definition of Hudson and Williams to look for similar formulae for $h(-e|D|)$ as rational multiples of single short character sums, where D is the discriminant of a quadratic field in certain residue classes and e is a positive integer such that $-e|D|$ is also a discriminant of an imaginary quadratic field. In [26] they reported 222 such formulae, which included the 127 reported in [18].

The objective of this thesis is to extend the definition of Schinzel, Urbanowicz and Van Wamelen to look at formulae that are rational linear combinations of two short character sums. We call these “two term class number formulae of Dirichlet type.” Computer programs were written to search for such formulae, and 8202 were found within our computational bounds.

1.1 Organization of Thesis

In Chapter 2 we give some of the basic concepts that underlie the rest of the material of the thesis. The Legendre symbol and its extensions, the Jacobi and Kronecker symbols are defined. Properties of these symbols and theorems related to them are stated without proof.

In Chapter 3 we define the class number $h(d)$ of negative fundamental discriminant d . As the main purpose of the thesis is to find class number formulae, this definition is particularly important. The class number has two equivalent interpre-

tations: one that relates to imaginary quadratic fields $\mathbb{Q}(\sqrt{d})$ of discriminant d , and one that relates to positive definite binary quadratic forms of discriminant d . For computational purposes we choose to define the class number $h(d)$ in terms of the latter, that is, as the number of equivalence classes of primitive, positive definite, integral binary quadratic forms of discriminant d under the action of the modular group. However the value of $h(d)$ in this case is the same as the number of ideal classes of an imaginary quadratic field of discriminant d . Thus, in this chapter, we introduce binary quadratic forms and give properties and theorems related to them in order to define the class number and give a means of calculating it.

In Chapter 4 we look at previous results on class numbers and short character sums. We examine the symmetries in short character sums found by Johnson and Mitchell [19]. These symmetries were used by Hudson and Williams [18] to prove their formulae. The formulae of Hudson and Williams [18], as well as those of Schinzel, Urbanowicz and Van Wamelen are given. In [26], Schinzel, Urbanowicz and Van Wamelen also examined vanishing short character sums and we give these here as well.

Chapter 5 contains the results of our work. The algorithms used to reproduce previous results are discussed, the theorems needed for the proofs are introduced, and new theorems are proved. The algorithm for finding new two term class number formulae of Dirichlet type is discussed and the results are tabulated.

The Maple code used during our work is given in the appendices. Since the formulae in [18], [26] and the thesis are of very similar form, the algorithms used are basically identical. The only changes reflect differences in the range, type of character summed and the number of short character sums involved. As a result there was much overlap between the programs. Appendix A thus contains the routines that were used by more than one of the programs. Appendix B, Appendix C and Appendix D contain the routines used to reproduce the results in [18], [26], and to calculate the new two term formulae, respectively. The routines in Appendix B, Appendix C and Appendix D are basically identical, but contain minor changes that reflect the differences in the forms and limits of the formulae for each case.

1.2 Notation

The following notation is used throughout this thesis.

- $\mathbb{R}$ — the reals
- $\mathbb{Z}$ — the integers
- $\mathbb{N}$ — the positive integers
- $\mathbb{Q}$ — the rationals
- (x, y) or $\gcd(x, y)$ — the greatest common divisor of the integers x and y

- $\left(\frac{a}{p}\right)$ — the Legendre symbol (where $a \in \mathbb{Z}$ and p is an odd prime)
- $\left(\frac{P}{Q}\right)$ — the Jacobi symbol (where $P \in \mathbb{Z}$ and $Q \in \mathbb{N}$ is odd)
- $\left(\frac{D}{n}\right)$ — the Kronecker symbol (where D is a discriminant and $n \in \mathbb{N}$)
- $h(d)$ — the class number of discriminant d
- $s(p, r, n)$ — short sum of Legendre symbols (see (4.1))
- $S(D, r, n)$ — short sum of Kronecker symbols (see (4.6))
- $S'(D, q_1, q_2)$ — short sum of Kronecker symbols (see (4.5))
- $\text{sgn}(x)$ — the signum function
- Γ — the modular group
- (a, b, c) — the binary quadratic form $ax^2 + bxy + cy^2$
- $f \sim g$ — equivalence of binary quadratic forms $f(x, y)$ and $g(x, y)$
- $[x]$ — the greatest integer less than or equal to the real number x

Chapter 2

Basic Concepts

In this chapter we give some basic definitions and introduce some of the notation that will be used throughout this thesis. Some theorems that will be needed in later chapters are stated without proof. Most of the material in this chapter can be found in a basic number theory text such as [6], [10] or [24]. The properties of the Kronecker symbol can be found in [2]. Proofs of the theorems that follow can be found in these sources.

2.1 The Legendre Symbol

For an odd prime p a quadratic residue $(\bmod p)$ is an integer a , with $p \nmid a$, such that there exists an integer x with $x^2 \equiv a \pmod{p}$.

Definition 2.1. The Legendre symbol $\left(\frac{a}{p}\right)$ is defined for an odd prime p and an integer a not divisible by p by

$$\left(\frac{a}{p}\right) = \begin{cases} +1, & \text{if } a \text{ is a quadratic residue } (\bmod p), \\ -1, & \text{if } a \text{ is not a quadratic residue } (\bmod p). \end{cases}$$

If $p \mid a$ we set

$$\left(\frac{a}{p}\right) = 0.$$

The Legendre symbol gives a measure of the quadratic nature of an integer $a \pmod{p}$. Euler was the first to prove the following method of calculating $\left(\frac{a}{p}\right)$.

Theorem 2.1 (Euler's Criterion). *If p is an odd prime and a is an integer then*

$$\left(\frac{a}{p}\right) \equiv a^{\frac{p-1}{2}} \pmod{p}.$$

As a direct consequence of Euler's criterion, we obtain the following useful values of the Legendre symbol for an odd prime p :

$$\begin{aligned} \left(\frac{1}{p}\right) &= 1, \\ \left(\frac{-1}{p}\right) &= \begin{cases} +1, & \text{if } p \equiv 1 \pmod{4}, \\ -1, & \text{if } p \equiv -1 \pmod{4}. \end{cases} \\ \left(\frac{2}{p}\right) &= \begin{cases} +1, & \text{if } p \equiv \pm 1 \pmod{8}, \\ -1, & \text{if } p \equiv \pm 3 \pmod{8}. \end{cases} \end{aligned}$$

Using the properties of congruences together with Euler's criterion leads to the two important properties below. In each of these, p is an odd prime and a and b are integers:

$$\begin{aligned} \left(\frac{a}{p}\right) &= \left(\frac{b}{p}\right), \text{ if } a \equiv b \pmod{p}, \\ \left(\frac{ab}{p}\right) &= \left(\frac{a}{p}\right) \left(\frac{b}{p}\right). \end{aligned} \tag{2.1}$$

Thus the Legendre symbol is a multiplicative function of the numerator. Moreover the value of the Legendre symbol $\left(\frac{a}{p}\right)$ depends only on the residue class of a modulo p , not a itself.

Since the Legendre symbol $\left(\frac{a}{p}\right)$ tells us whether a is a quadratic residue (mod p) or not, it is not surprising to see that if $(a, p) = 1$ then

$$\begin{aligned}\left(\frac{a^2}{p}\right) &= 1, \\ \left(\frac{a^2b}{p}\right) &= \left(\frac{b}{p}\right).\end{aligned}$$

It was Gauss who first proved the law of quadratic reciprocity in 1795 at the age of nineteen. His first proof was published in 1801. Eventually he published a total of eight proofs. This theorem leads to a reciprocity relation for the Jacobi symbol (Theorem 2.3), which gives us a method of calculating $\left(\frac{a}{p}\right)$ that is more efficient than Euler's criterion.

Theorem 2.2 (Law of Quadratic Reciprocity). *If p and q are distinct odd primes then*

$$\left(\frac{p}{q}\right) \left(\frac{q}{p}\right) = (-1)^{\left(\frac{p-1}{2}\right)\left(\frac{q-1}{2}\right)}. \quad (2.2)$$

2.2 The Jacobi Symbol

The Legendre symbol is limited in that it only allows odd primes in the denominator of the symbol. This symbol can be extended in two ways. The first extension is

to the Jacobi symbol, which allows a positive odd integer in the denominator, the second extension is to the Kronecker symbol, which allows a positive even integer in the denominator.

Let Q be a positive odd integer so that $Q = q_1 q_2 \cdots q_n$, where the q_i are all odd primes, not necessarily distinct. Then the Jacobi symbol $\left(\frac{P}{Q}\right)$ is defined for an arbitrary integer P by

$$\left(\frac{P}{Q}\right) = \prod_{i=1}^n \left(\frac{P}{q_i}\right),$$

where the $\left(\frac{P}{q_i}\right)$ are Legendre symbols.

Thus, if Q is an odd prime, the Jacobi symbol is just the Legendre symbol. If $(P, Q) > 1$, then $\left(\frac{P}{Q}\right) = 0$. If P is a quadratic residue modulo Q then we must have $\left(\frac{P}{q_i}\right) = 1$ for all $q_i | Q$ and thus $\left(\frac{P}{Q}\right) = 1$. However, $\left(\frac{P}{Q}\right) = 1$ does not imply that P is a quadratic residue modulo Q .

Using the definition of the Jacobi symbol and some of the properties of the Legendre symbol from Section 2.1 we obtain the following results, similar to the ones for the Legendre symbol.

$$\begin{aligned} \left(\frac{1}{Q}\right) &= 1, \\ \left(\frac{-1}{Q}\right) &= \begin{cases} +1, & \text{if } Q \equiv 1 \pmod{4}, \\ -1, & \text{if } Q \equiv -1 \pmod{4}, \end{cases} \\ \left(\frac{2}{Q}\right) &= \begin{cases} +1, & \text{if } Q \equiv \pm 1 \pmod{8}, \\ -1, & \text{if } Q \equiv \pm 3 \pmod{8}. \end{cases} \end{aligned}$$

Using properties of the Legendre symbol, we see that the Jacobi symbol satisfies

the same sort of congruence relation as (2.1), namely

if $P' \equiv P \pmod{Q}$ then

$$\left(\frac{P'}{Q}\right) = \left(\frac{P}{Q}\right). \quad (2.3)$$

We also see that the Jacobi symbol is multiplicative in both the numerator and denominator. Thus if Q and Q' are both positive odd integers then we have

$$\begin{aligned} \left(\frac{P}{Q}\right) \left(\frac{P}{Q'}\right) &= \left(\frac{P}{QQ'}\right), \\ \left(\frac{P}{Q}\right) \left(\frac{P'}{Q}\right) &= \left(\frac{PP'}{Q}\right). \end{aligned}$$

Again, because of the quadratic nature of the Jacobi symbol, we have the following properties similar to those of the Legendre symbol. If $(P, Q) = 1$ then

$$\left(\frac{P^2}{Q}\right) = \left(\frac{P}{Q^2}\right) = 1,$$

and, if $(PP', QQ') = 1$ then

$$\left(\frac{P'^2 P}{Q'^2 Q}\right) = \left(\frac{P}{Q}\right).$$

The Jacobi symbol satisfies a reciprocity relation similar to that satisfied by the Legendre symbol.

Theorem 2.3. *If P and Q are positive odd integers and $(P, Q) = 1$ then*

$$\left(\frac{P}{Q}\right) \left(\frac{Q}{P}\right) = (-1)^{\left(\frac{P-1}{2}\right)\left(\frac{Q-1}{2}\right)}. \quad (2.4)$$

Theorem 2.3 together with the congruence relation (2.3) yields an efficient algorithm for evaluating the Jacobi or Legendre symbol by a series of flips of the numerator and denominator, each followed by reduction of the numerator modulo the denominator.

We have extended the Legendre symbol to allow denominators which are composite positive odd integers. For our purposes we must extend the definition further to allow for even denominators in certain circumstances.

2.3 The Kronecker Symbol

The Jacobi symbol is an extension of the Legendre symbol to allow composite positive odd integers as denominators. We now extend the Jacobi symbol to the Kronecker symbol, which allows even denominators when the numerator is a discriminant, that is a nonsquare integer congruent to 0 or 1 (mod 4).

Definition 2.2. Let $d \equiv 0, 1 \pmod{4}$ be an integer, not a perfect square. Let m be a positive integer so that $m = 2^k n$ where $k \in \{0, 1, 2, \dots\}$ and n is a positive odd integer. Then the Kronecker symbol $\left(\frac{d}{m}\right)$ is defined by

$$\left(\frac{d}{m}\right) = \left(\frac{d}{2}\right)^k \left(\frac{d}{n}\right),$$

where $\left(\frac{d}{n}\right)$ is the Jacobi symbol and

$$\left(\frac{d}{2}\right) = \begin{cases} +1, & \text{if } d \equiv 1 \pmod{8}, \\ -1, & \text{if } d \equiv 5 \pmod{8}, \\ 0, & \text{if } d \equiv 0 \pmod{4}. \end{cases}$$

It is easily seen that the Kronecker symbol is multiplicative in its denominator. Some useful properties of the Kronecker symbol that we will need later to prove our main theorem (Theorem 5.3) are: for $d \equiv 1 \pmod{4}$

$$\left(\frac{d}{2}\right) = \left(\frac{2}{|d|}\right),$$

where the symbol on the left is a Kronecker symbol and the symbol on the right is a Jacobi symbol, and, for $n \in \mathbb{N}$ and $d \equiv 1 \pmod{4}$

$$\left(\frac{d}{n}\right) = \left(\frac{n}{|d|}\right),$$

where the symbol on the left is a Kronecker symbol and the symbol on the right is a Jacobi symbol.

To prove Theorem 5.3 we will also need the following result proved in [2].

Lemma 2.1. *If m and n are both positive integers and D is a discriminant, then*

$$\left(\frac{D}{m}\right) = \left(\frac{D}{n}\right), \quad \text{if } m \equiv n \pmod{|D|}, \quad (2.5)$$

$$\left(\frac{D}{m}\right) = \left(\frac{D}{n}\right) \operatorname{sgn}(D), \quad \text{if } m \equiv -n \pmod{|D|}, \quad (2.6)$$

where $\operatorname{sgn}(x) = \frac{x}{|x|}$ for $x \in \mathbb{R} \setminus \{0\}$.

Chapter 3

The Class Number

In this chapter we define the class number $h(d)$ of negative discriminant d in terms of equivalence classes of binary quadratic forms of discriminant d . As we have already remarked $h(d)$ is also the class number of the imaginary quadratic field $\mathbb{Q}(\sqrt{d})$.

Properties of binary quadratic forms and the class number, as well as any theorems, are presented without proof. The proofs can be found in [5], [6] or [24].

3.1 Binary Quadratic Forms

A polynomial in several variables with integral coefficients is called a *form* if all its monomial terms have the same degree. A form in two variables is called a binary form. Thus a *binary quadratic form* is a polynomial

$$f(x, y) = ax^2 + bxy + cy^2, \quad a, b, c \in \mathbb{Z}.$$

We only consider $f(x, y)$ for integral values of the variables x and y . Clearly $f(x, y) \in \mathbb{Z}$ for $x, y \in \mathbb{Z}$. If $a \neq 0$ we can complete the square on the expression

on the right to obtain

$$4af(x, y) = (2ax + by)^2 - (b^2 - 4ac)y^2. \quad (3.1)$$

The integer $d = b^2 - 4ac$ allows us to describe the nature of the binary quadratic form $f(x, y)$. Thus if we rewrite (3.1) as

$$4af(x, y) = (2ax + by)^2 - dy^2 \quad (3.2)$$

we see that

- if $d = 0$, then $f(x, y)$ is reducible in $\mathbb{Q}[x, y]$,
- if $d < 0$, then the right hand side of (3.2) is non-negative and only zero for $x = y = 0$,
- if $d > 0$ and d is a perfect square, then $f(x, y)$ is reducible in $\mathbb{Q}[x, y]$,
- if $d > 0$ and d is not a perfect square, then the right hand side of (3.2) is irreducible in $\mathbb{Q}[x, y]$, thus $f(x, y) = 0$ only has the trivial solution $x = y = 0$.

The case $a = 0$ is covered by the third possibility above.

The integer d is called the *discriminant* of the binary quadratic form. Notice that $d \equiv b^2 \pmod{4}$, so we must have $d \equiv 0, 1 \pmod{4}$ for all binary quadratic forms of discriminant d . We also note that $d \equiv b \pmod{2}$.

We call a form *definite* when $d < 0$. Clearly, for a definite form, we must have $a > 0$ and $c > 0$ (positive definite) or $a < 0$ and $c < 0$ (negative definite). Also, for

$x, y \in \mathbb{Z}$, a positive (negative) definite form has $f(x, y) = 0$ if and only if $x = y = 0$, otherwise $f(x, y)$ is positive (negative).

We call a form *indefinite* when $d > 0$. An indefinite form takes on both positive and negative values. If d is a perfect square then $f(x, y) = 0$ has more than the trivial integer solution.

We call a form *semidefinite* when $d = 0$. Like a definite form, a semidefinite form must have $a > 0$ and $c > 0$ (positive semidefinite) or $a < 0$ and $c < 0$ (negative semidefinite). Thus a positive (negative) semidefinite form satisfies $f(x, y) = 0$ for an infinite number of pairs of integers (x, y) and for the remaining pairs of integers it is positive (negative).

For the purpose of this work, we are only interested in positive definite binary quadratic forms. Further, we restrict our attention only to primitive forms, that is, forms $ax^2 + bxy + cy^2$ for which $\gcd(a, b, c) = 1$, and to forms whose discriminant d is a fundamental discriminant. Hence, from now in this thesis, a binary quadratic form means a primitive, integral, positive definite binary quadratic form $ax^2 + bxy + cy^2$, so that a, b, c are integers such that $a > 0, c > 0, b^2 - 4ac < 0, \gcd(a, b, c) = 1$, whose discriminant d is a fundamental discriminant. We emphasize the discriminant d of such a form is negative and that the integers the form represents are nonnegative.

3.2 Equivalence of Binary Quadratic Forms

Two binary quadratic forms may represent the same integers for integral values of the variables x and y . Thus, for example, if $f(x, y) = 3x^2 + xy + y^2$ and $g(x, y) = 3x^2 - 5xy + 3y^2$ it is clear that $f(x, y)$ and $g(x, y)$ represent the same set of integers as $g(x, y) = f(x - y, y)$.

Definition 3.1. The *modular group*, denoted Γ , is the group of 2×2 matrices with integral elements and determinant 1.

The linear transformation

$$\begin{bmatrix} X \\ Y \end{bmatrix} = M \begin{bmatrix} x \\ y \end{bmatrix}, \quad (3.3)$$

with $M \in \Gamma$, is a bijection : $\mathbb{Z}^2 \rightarrow \mathbb{Z}^2$. Furthermore, for any binary quadratic form $f(x, y) = ax^2 + bxy + cy^2$, if we let $g(x, y) = f(X, Y)$ then the two quadratic forms represent the same integers.

Definition 3.2. Two binary quadratic forms, $f(x, y) = ax^2 + bxy + cy^2$ and $g(x, y) = Ax^2 + Bxy + Cy^2$, are said to be *equivalent* if there is an $M \in \Gamma$ such that $g(x, y) = f(X, Y)$, where X and Y are defined in (3.3). If $f(x, y)$ and $g(x, y)$ are equivalent, we write $f \sim g$.

Some properties of equivalent binary quadratic forms are

- $f \sim f$,
- if $f \sim g$ then $g \sim f$,
- if $f \sim g$ and $g \sim h$ then $f \sim h$,
- if f has discriminant d , g has discriminant D , and $f \sim g$ then $d = D$.

Thus $\sim$ is an equivalence relation, which partitions the set of binary quadratic forms of discriminant d into equivalence classes.

3.3 Reduction of Binary Quadratic Forms

We next give a representative for each equivalence class.

Definition 3.3. A binary quadratic form $f(x, y) = ax^2 + bxy + cy^2$ is said to be reduced if

$$-a < b \leq a < c \tag{3.4}$$

or

$$0 \leq b \leq a = c. \tag{3.5}$$

Theorem 3.1. *Each equivalence class of binary quadratic forms contains exactly one reduced form.*

Since a binary quadratic form $f(x, y) = ax^2 + bxy + cy^2$ is identified just by its coefficients a , b and c , we will represent $f(x, y)$ by (a, b, c) . We will use the notation (a, b, c) to simplify the remaining discussion.

We can transform any form (a, b, c) into an equivalent reduced form with the same discriminant by means of a succession of transformations from the modular group of the following two types:

1. If $a > c$, then using the transformation represented by $M = \begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix}$ yields $(a, b, c) \sim (c, -b, a)$. Now the first coefficient is smaller than the last.
2. If $b > a$ or $b \leq -a$, then the transformation $M = \begin{bmatrix} 1 & m \\ 0 & 1 \end{bmatrix}$ yields $(a, b, c) \sim (a, 2am + b, am^2 + bm + c)$. Thus we choose m to be the unique integer such that $-a < 2am + b \leq a$. Now the middle coefficient is in the desired range.

At this point, note that from the first transformation above $(a, b, a) \sim (a, -b, a)$. This justifies the inclusion of (3.5) in the definition of a reduced form, otherwise a class could contain two reduced forms. Similarly the second transformation with $m = -1$ shows that $(a, a, c) \sim (a, -a, c)$. This justifies the first inequality in (3.4).

3.4 The Class Number

Definition 3.4. If d is the discriminant of a binary quadratic form, then the *class number* $h(d)$ is the number of equivalence classes of binary quadratic forms with discriminant d .

From Theorem 3.1, we see that the class number $h(d)$ is just the number of reduced forms of discriminant d . Thus an efficient method of finding the reduced forms of discriminant d enables us to calculate the class number $h(d)$. The following is a simple consequence of (3.4) and (3.5).

Theorem 3.2. *If $ax^2 + bxy + cy^2$ is a reduced binary quadratic form of discriminant d then*

$$0 \leq |b| \leq \sqrt{\frac{|d|}{3}}. \quad (3.6)$$

By running through the integers b satisfying (3.6) and $b \equiv d \pmod{2}$ we obtain a list of candidates for the middle term b of a reduced form (a, b, c) of discriminant d . To find the reduced forms (a, b, c) it is just a matter of finding positive integers a and c to go with b that satisfy $ac = \frac{b^2 - d}{4}$, $|b| \leq a \leq c$ and $\gcd(a, b, c) = 1$. The number of such reduced forms is $h(d)$. The Maple code used to calculate the class number $h(d)$ can be found in Appendix A.1.

Chapter 4

Previous Results

4.1 Symmetries For Sums of the Legendre Symbol

For an odd prime p , $n \in \mathbb{N}$ and $r \in \{1, 2, \dots, n\}$ we define the sum $s(p, r, n)$ by

$$s(p, r, n) = \sum_{\substack{(r-1)p \leq a < rp \\ n}} \left(\frac{a}{p} \right). \quad (4.1)$$

Clearly

$$\sum_{r=1}^n s(p, r, n) = \sum_{a=1}^{p-1} \left(\frac{a}{p} \right) = 0$$

and

$$s(p, r, n) = \left(\frac{-1}{p} \right) s(p, n - r + 1, n).$$

According to Karpinski [20], these sums were first studied by Gauss and Dedekind for certain small values of r and n . Their results were extended by Berndt [3], Berndt and Chowla [4], Glaisher [9], Karpinski [20], and Holden [11] - [17]. The following generalization of these results was proved by Johnson and Mitchell [19] in 1977.

Theorem 4.1. *Suppose p is a prime and $p \nmid q$. Then for $1 \leq r \leq n$,*

$$\left(\frac{q}{p}\right) s(p, r, n) = \sum_{j=0}^{\lfloor (q-1)/2 \rfloor} s(p, jn + r, nq) + \left(\frac{-1}{p}\right) \sum_{j=1}^{\lfloor q/2 \rfloor} s(p, jn - r + 1, nq). \quad (4.2)$$

Using Theorem 4.1, Johnson and Mitchell tabulated symmetries of $s(p, r, n)$ based on the quadratic character of certain small integers (mod p). For example, the following table is based on the quadratic character of -1 and 2 (mod p).

Table 4.1: Symmetries in Sums of the Legendre Symbol

	0	$p \equiv 1 \pmod{8}$												$p/2$
$s(p, r, 4)$	A						$-A$							
$s(p, r, 8)$	B						B							
$s(p, r, 16)$			C	D			D					C		
$s(p, r, 32)$	E			F					F				E	

Every occurrence of a letter represents an equal sum. So, for example, $s(p, 3, 16) = s(p, 5, 16)$, when $p \equiv 1 \pmod{8}$.

4.2 Class Number Formulae of Dirichlet Type

Dirichlet [7], [8] was the first to investigate the relationship between short character sums and the class number of an imaginary quadratic field. In 1840 he proved eleven class number formulae such as

$$h(-p) = \frac{1}{3} \sum_{0 < n < p/2} \left(\frac{n}{p}\right), \quad p \equiv 3 \pmod{8}, \quad (4.3)$$

$$h(-4p) = 2 \sum_{0 < n < p/4} \left(\frac{n}{p} \right), \quad p \equiv 1 \pmod{8},$$

and

$$h(-8p) = 4 \sum_{p/8 < n < p/4} \left(\frac{n}{p} \right), \quad p \equiv 7 \pmod{8},$$

where p is a prime greater than 3. Following Dirichlet, others found similar formulae over the years. In 1982, Hudson and Williams [18] defined a *class number formula of Dirichlet type* to be a formula of the form

$$h(-ep) = c \sum_{\frac{(k-1)p}{le} < n < \frac{kp}{le}} \left(\frac{n}{p} \right), \quad p \equiv r \pmod{m}, \quad (4.4)$$

where

- p is a prime greater than 3,
- e is a positive integer such that $-ep$ is the discriminant of an imaginary quadratic field,
- l is a positive integer,
- k is a positive integer satisfying $1 \leq k \leq \frac{1}{2}(le + 1)$,
- $m = 4 \prod_{q|le} q$, where q runs through the primes dividing le ,

- r is an integer satisfying $1 \leq r \leq m$, $(r, 2le) = 1$,
- c is a rational number.

Hudson and Williams then designed a computer program to search for all such formulae for which the parameters d and l satisfy the constraints $1 \leq d \leq 28$ and $1 \leq ld \leq 30$. Of the 127 formulae that they found, 84 were in the literature and 43 appeared to be new. Their results are listed below in Table 4.2.

$$h(-dp) = c \sum_{\frac{(k-1)p}{ld} < n < \frac{kp}{ld}} \left(\frac{n}{p} \right), \quad p \equiv r \pmod{m}$$

Table 4.2: Class Number Formulae of Dirichlet Type

d	l	k	c	r	m	d	l	k	c	r	m
1	2	1	$\frac{1}{3}$	3	8	1	2	1	1	7	8
1	3	1	$\frac{1}{2}$	7	12	1	3	1	1	11	12
1	4	1	1	7	8	1	4	2	$\frac{1}{3}$	3	8
1	6	1	1	7	24	1	6	1	1	11	24
1	6	1	-1	19	24	1	6	1	1	23	24
1	6	2	1	7	24	1	6	2	$\frac{1}{3}$	19	24
1	6	3	-1	7	24	1	6	3	$\frac{1}{2}$	11	24
1	6	3	1	19	24	1	10	1	1	11	40
1	10	1	1	19	40	1	12	3	-1	11	24
1	12	3	1	19	24	1	12	4	1	7	24
1	12	4	1	11	24	1	12	4	$\frac{1}{2}$	19	24
1	14	3	-1	11	56	1	14	3	-1	43	56
1	14	3	-1	51	56	1	14	6	1	11	56
1	14	6	1	43	56	1	14	6	1	51	56
1	18	8	-1	19	24	1	20	6	1	11	40
1	20	6	1	19	40	1	30	10	1	19	120
1	30	10	$\frac{1}{2}$	43	120	1	30	10	$\frac{1}{2}$	67	120

Table 4.2: (continued)

d	l	k	c	r	m	d	l	k	c	r	m
1	30	10	1	83	120	1	30	10	1	91	120
1	30	10	1	107	120						
3	1	1	2	1	12	3	1	1	2	5	12
3	1	2	-1	1	12	3	1	2	-1	5	12
3	2	1	1	1	24	3	2	1	1	17	24
3	2	2	-2	1	24	3	2	2	-2	17	24
3	2	2	2	5	24	3	2	2	2	13	24
3	2	3	-2	1	24	3	2	3	-2	5	24
3	2	3	-2	13	24	3	2	3	-2	17	24
3	4	1	2	17	24	3	4	2	2	17	24
3	4	5	-2	5	24	3	4	5	-1	17	24
3	4	6	2	17	24	3	10	7	2	41	120
3	10	7	2	89	120						
4	1	1	2	1	8	4	1	1	2	5	8
4	1	2	-2	1	8	4	1	2	-2	5	8
4	3	1	2	13	24	4	3	2	-2	13	24
4	3	3	2	5	24	4	3	3	2	13	24
4	3	6	-2	13	24						
5	1	2	2	3	20	5	1	2	2	7	20
5	1	2	2	11	20	5	1	2	2	19	20
5	2	2	-4	11	40	5	2	2	-4	19	40
5	2	2	4	31	40	5	2	2	4	39	40
5	2	3	4	11	40	5	2	3	4	19	40
5	2	3	$\frac{4}{3}$	31	40	5	2	3	$\frac{4}{3}$	39	40
5	2	4	4	11	40	5	2	4	4	19	40
5	2	4	-4	31	40	5	2	4	-4	39	40
5	2	5	-4	31	40	5	2	5	-4	39	40
5	3	6	4	11	60	5	3	6	4	59	60
5	4	5	4	31	40	5	4	5	4	39	40
5	4	6	2	7	40	5	4	6	2	23	40
5	4	6	2	31	40	5	4	6	2	39	40
5	6	6	-4	11	120	5	6	6	-4	31	120
5	6	6	-4	59	120	5	6	6	-4	71	120
5	6	6	-4	79	120	5	6	6	-4	119	120
5	6	10	-2	23	120	5	6	10	-2	47	120
5	6	10	-2	71	120	5	6	10	-2	119	120

Table 4.2: (continued)

d	l	k	c	r	m	d	l	k	c	r	m
7	2	6	-2	5	56	7	2	6	-2	13	56
7	2	6	-2	29	56	7	2	6	-2	37	56
7	2	6	-2	45	56	7	2	6	-2	53	56
8	1	2	4	7	8	8	1	3	4	7	8
8	1	4	-4	7	8	8	3	4	4	7	24
8	3	4	4	23	24	8	3	9	4	23	24
12	1	2	4	7	24	12	1	2	4	11	24
12	1	2	4	23	24	12	1	5	4	11	24
12	1	5	4	19	24	12	1	5	4	23	24
12	1	6	-4	7	24	12	1	6	-4	23	24
15	2	12	-4	13	120	15	2	12	-4	37	120
15	2	12	-4	61	120	15	2	12	-4	109	120

Thus, for example, the fifth entry in the left hand side of Table 4.2, asserts that

$$h(-p) = - \sum_{0 < n < \frac{p}{6}} \left(\frac{n}{p} \right)$$

for all primes $p \equiv 19 \pmod{24}$, a result first proved by Holden [12].

4.3 Short Character Sums

In 1999, Schinzel, Urbanowicz and Van Wamelen [26] considered short character sums of the form

$$S'(D, q_1, q_2) = \sum_{q_1 | D | \leq n < q_2 | D |} \left(\frac{D}{n} \right), \quad (4.5)$$

where $D \neq 1$ is a fundamental discriminant and

$$q_1, q_2 \in \mathbb{Q}; \quad 0 \leq q_1 < q_2 < 1.$$

For the purpose of our programs and proofs, we extend the definition of $s(p, k, n)$ given in (4.1) as follows: for $D(\neq 1)$ a nonsquare discriminant and $n \in \mathbb{N}$ we let

$$S(D, r, n) = \sum_{\substack{(r-1)|D| \\ n} \leq a < \frac{r|D|}{n}} \left(\frac{D}{a} \right), \quad 1 \leq r \leq n. \quad (4.6)$$

Thus we have

$$S'(D, q_1, q_2) = \sum_{k=a+1}^b S(D, k, n),$$

where n is the least common denominator of q_1 and q_2 , with $q_1 = \frac{a}{n}$ and $q_2 = \frac{b}{n}$.

In [26] (see also [27]) Schinzel, Urbanowicz and Van Wamelen looked at vanishing short character sums of the form

$$\sum_{q_1|D| < n < q_2|D|} \left(\frac{D}{n} \right) = 0, \quad |D| \equiv s_0 \pmod{m},$$

where $D \neq 1$ is a non-square discriminant, $0 \leq q_1 < q_2$, $q_1 + q_2 \leq 1$ and $q_2 \leq \frac{1}{2}$ if $q_1 = 0$. If we let r be the least common denominator of q_1 and q_2 , then Table 4.3 lists the 55 formulae given in [26] and [27]. (Note when $q_2 > \frac{1}{2}$ the authors excluded $D > 0$.)

Table 4.3: Vanishing Short Character Sums

r	q_1, q_2	$s_0; m$	r	q_1, q_2	$s_0; m$	r	q_1, q_2	$s_0; m$
2	$0, \frac{1}{2}$	1;4	12	$\frac{1}{12}, \frac{5}{6}$	5;24	24	$\frac{1}{24}, \frac{5}{24}$	13;24
4	$0, \frac{1}{4}$	3;8	12	$\frac{1}{12}, \frac{11}{12}$	5;24	24	$\frac{1}{24}, \frac{11}{24}$	5;24
4	$\frac{1}{4}, \frac{1}{2}$	7;8	12	$\frac{1}{6}, \frac{1}{4}$	7;8	24	$\frac{5}{24}, \frac{7}{24}$	5;24
6	$0, \frac{1}{6}$	5;8	12	$\frac{1}{6}, \frac{5}{12}$	5;24	24	$\frac{7}{24}, \frac{11}{24}$	13;24
6	$\frac{1}{6}, \frac{1}{3}$	11;12	12	$\frac{1}{6}, \frac{7}{12}$	5;24	30	$\frac{1}{30}, \frac{1}{5}$	73,97;120
6	$\frac{1}{6}, \frac{1}{2}$	5,7;8	12	$\frac{1}{4}, \frac{1}{3}$	23;24	30	$\frac{1}{30}, \frac{1}{11}$	17,33;40
6	$\frac{1}{6}, \frac{5}{6}$	5;8	12	$\frac{1}{4}, \frac{5}{12}$	13;24	30	$\frac{1}{30}, \frac{3}{5}$	17,113;120
6	$\frac{1}{3}, \frac{1}{2}$	23;24	12	$\frac{1}{3}, \frac{7}{12}$	17;24	30	$\frac{1}{10}, \frac{1}{6}$	11,59;120
10	$0, \frac{1}{10}$	3,27;40	12	$\frac{5}{12}, \frac{1}{2}$	5;24	30	$\frac{1}{10}, \frac{1}{3}$	11,59;120
10	$0, \frac{3}{10}$	3,27;40	12	$\frac{5}{12}, \frac{7}{12}$	5;24	30	$\frac{1}{6}, \frac{3}{10}$	11,59;120
10	$\frac{1}{10}, \frac{3}{10}$	3;8	14	$\frac{1}{14}, \frac{2}{7}$	3,19,27;56	30	$\frac{1}{5}, \frac{7}{30}$	17,113;120
12	$0, \frac{1}{12}$	5;24	14	$\frac{1}{7}, \frac{3}{14}$	3,19,27;56	30	$\frac{1}{5}, \frac{11}{30}$	73,97;120
12	$0, \frac{5}{12}$	5;24	14	$\frac{5}{14}, \frac{3}{7}$	3,19,27;56	30	$\frac{1}{5}, \frac{17}{30}$	17,113;120
12	$\frac{1}{12}, \frac{1}{6}$	5;24	18	$\frac{1}{18}, \frac{2}{9}$	11;24	30	$\frac{7}{30}, \frac{2}{5}$	73,97;120
12	$\frac{1}{12}, \frac{1}{4}$	13;24	18	$\frac{1}{9}, \frac{5}{18}$	11;24	30	$\frac{7}{30}, \frac{17}{30}$	17,33;40
12	$\frac{1}{12}, \frac{1}{3}$	17;24	18	$\frac{7}{18}, \frac{4}{9}$	11;24	30	$\frac{3}{10}, \frac{1}{3}$	11,59;120
12	$\frac{1}{12}, \frac{5}{12}$	5;8	20	$\frac{1}{10}, \frac{1}{4}$	3,27;40	30	$\frac{11}{30}, \frac{3}{5}$	17,11;120
12	$\frac{1}{12}, \frac{1}{2}$	5;24	20	$\frac{1}{4}, \frac{3}{10}$	3,27;40	30	$\frac{2}{5}, \frac{17}{30}$	73,97;120
12	$\frac{1}{12}, \frac{7}{12}$	5;12						

Thus for example the last entry in this table asserts that

$$\sum_{\frac{2}{5}|D| < n < \frac{17}{30}|D|} \left(\frac{D}{n} \right) = 0$$

for all positive nonsquare discriminants $D \equiv 73, 97 \pmod{120}$ and the second entry in the left hand column gives

$$\sum_{0 < n < \frac{1}{4}|D|} \left(\frac{D}{n} \right) = 0$$

for all negative discriminants $D \equiv 5 \pmod{8}$.

Schinzel, Urbanowicz and Van Wamelen also extended the idea of class number formulae from those defined by Hudson and Williams to

$$h(-e|D|) = c \sum_{q_1|D| < n < q_2|D|} \left(\frac{D}{n} \right), \quad |D| \equiv s_0 \pmod{m}, \quad (4.7)$$

where

- q_1 and q_2 are rational numbers with $0 \leq q_1 < q_2$, $q_1 + q_2 \leq 1$, and $q_2 \leq \frac{1}{2}$ if $q_1 = 0$,
- r is the least common denominator of q_1 and q_2 ,
- $D \neq 1$ is a fundamental discriminant with $(D, r) = 1$,
- e is a positive integer with $(e, D) = 1$, $-e|D|$ is a fundamental discriminant and $e|D| > 4$,
- if m is odd then $\mathbf{P}$ and $\mathbf{N}$ represent $D > 0$ and $D < 0$ respectively,
- if $q_2 > \frac{1}{2}$ then $D < 0$ is excluded.

Table 4.4 gives the 222 formulae listed in [26] (and [27]) for $1 \leq e \leq 30$ and $1 \leq r \leq 60$.

Table 4.4: Generalized Class Number Formulae of Dirichlet Type

e	q_1, q_2	c	$s_0; m$	e	q_1, q_2	c	$s_0; m$
1	$0, \frac{1}{2}$	$\frac{1}{3}$	3;8	1	$0, \frac{1}{2}$	1	7;8
1	$0, \frac{1}{3}$	$\frac{1}{2}$	1;3N	1	$0, \frac{1}{3}$	1	2;3N
1	$0, \frac{1}{4}$	1	7;8	1	$\frac{1}{4}, \frac{1}{2}$	$\frac{1}{3}$	3;8
1	$0, \frac{1}{6}$	-1	19;24	1	$0, \frac{1}{6}$	1	7, 11, 23;24
1	$\frac{1}{6}, \frac{1}{3}$	$\frac{1}{3}$	19;24	1	$\frac{1}{6}, \frac{1}{3}$	1	7;24
1	$\frac{1}{6}, \frac{1}{2}$	$\frac{1}{4}$	19;24	1	$\frac{1}{6}, \frac{1}{2}$	$\frac{1}{2}$	11;24
1	$\frac{1}{3}, \frac{1}{2}$	-1	7;24	1	$\frac{1}{3}, \frac{1}{2}$	$\frac{1}{2}$	11;24
1	$\frac{1}{3}, \frac{1}{2}$	1	19;24	1	$\frac{1}{6}, \frac{1}{3}$	$\frac{1}{3}$	19;24
1	$0, \frac{1}{10}$	1	11, 19;40	1	$0, \frac{3}{10}$	1	11, 19;40
1	$\frac{1}{10}, \frac{1}{2}$	$\frac{1}{3}$	3, 27;40	1	$\frac{1}{10}, \frac{1}{2}$	$\frac{1}{2}$	11, 19;40
1	$\frac{3}{10}, \frac{1}{2}$	$\frac{1}{3}$	3, 27;40	1	$\frac{1}{10}, \frac{1}{2}$	$\frac{1}{2}$	11, 19;40
1	$\frac{1}{6}, \frac{1}{4}$	-1	11;24	1	$\frac{1}{6}, \frac{1}{4}$	1	19;24
1	$\frac{1}{4}, \frac{1}{3}$	$\frac{1}{2}$	19;24	1	$\frac{1}{4}, \frac{1}{3}$	1	7, 11;24
1	$\frac{1}{14}, \frac{2}{7}$	1	11, 43, 51;56	1	$\frac{1}{7}, \frac{3}{14}$	-1	11, 43, 51;56
1	$\frac{5}{14}, \frac{3}{7}$	1	11, 43, 51;56	1	$\frac{1}{18}, \frac{2}{9}$	-1	19;24
1	$\frac{1}{9}, \frac{5}{18}$	1	19;24	1	$\frac{7}{18}, \frac{4}{9}$	-1	19;24
1	$\frac{1}{10}, \frac{1}{4}$	-1	11, 19;40	1	$\frac{1}{4}, \frac{3}{10}$	1	11, 19;40
1	$\frac{1}{10}, \frac{1}{6}$	-1	43, 67;120	1	$\frac{1}{10}, \frac{1}{6}$	$-\frac{1}{2}$	19, 91;120
1	$\frac{1}{10}, \frac{1}{6}$	1	83, 107;120	1	$\frac{1}{10}, \frac{1}{3}$	$\frac{1}{2}$	43, 67;120
1	$\frac{1}{10}, \frac{1}{3}$	1	19, 83, 91, 107;120	1	$\frac{1}{6}, \frac{3}{10}$	-1	83, 107;120
1	$\frac{1}{6}, \frac{3}{10}$	$\frac{1}{2}$	19, 91;120	1	$\frac{1}{6}, \frac{3}{10}$	1	43, 67;120
1	$\frac{3}{10}, \frac{1}{3}$	$\frac{1}{2}$	43, 67;120	1	$\frac{3}{10}, \frac{1}{3}$	1	19, 83, 91, 107;120
3	$0, \frac{1}{3}$	2	0;1P	3	$\frac{1}{3}, \frac{2}{3}$	-1	0;1P
3	$0, \frac{1}{6}$	1	1;8	3	$\frac{1}{6}, \frac{1}{3}$	-2	1;8
3	$\frac{1}{6}, \frac{1}{3}$	2	5;8	3	$\frac{1}{6}, \frac{1}{2}$	-1	1;8
3	$\frac{1}{6}, \frac{2}{3}$	-2	5;8	3	$\frac{1}{6}, \frac{2}{3}$	$-\frac{2}{3}$	1;8
3	$\frac{1}{6}, \frac{5}{6}$	$-\frac{1}{2}$	1;8	3	$\frac{1}{3}, \frac{1}{2}$	-2	1;4
3	$0, \frac{1}{12}$	2	17;24	3	$0, \frac{5}{12}$	-2	17;24
3	$\frac{1}{12}, \frac{1}{6}$	2	17;24	3	$\frac{1}{12}, \frac{1}{4}$	-2	1;24
3	$\frac{1}{12}, \frac{1}{3}$	2	5;24	3	$\frac{1}{12}, \frac{5}{12}$	-1	1;8
3	$\frac{1}{12}, \frac{1}{2}$	-2	17;24	3	$\frac{1}{12}, \frac{2}{3}$	-2	5;24

Table 4.4: (continued)

e	q_1, q_2	c	$s_0; m$	e	q_1, q_2	c	$s_0; m$
3	$\frac{1}{12}, \frac{2}{3}$	-1	17;24	3	$\frac{1}{12}, \frac{5}{6}$	$-\frac{2}{3}$	17;24
3	$\frac{1}{12}, \frac{11}{12}$	-1	17;24	3	$\frac{1}{6}, \frac{5}{12}$	$-\frac{2}{3}$	17;24
3	$\frac{1}{6}, \frac{7}{12}$	-2	17;24	3	$\frac{1}{4}, \frac{5}{12}$	-2	1;24
3	$\frac{1}{3}, \frac{5}{12}$	-2	5;24	3	$\frac{1}{3}, \frac{5}{12}$	-1	17;24
3	$\frac{1}{3}, \frac{7}{12}$	-2	5;24	3	$\frac{5}{12}, \frac{1}{2}$	2	17;24
3	$\frac{5}{12}, \frac{7}{12}$	1	17;24	3	$\frac{1}{18}, \frac{2}{9}$	-2	1;24
3	$\frac{1}{18}, \frac{2}{9}$	2	17;24	3	$\frac{1}{9}, \frac{5}{18}$	-2	1;24
3	$\frac{1}{9}, \frac{5}{18}$	2	17;24	3	$\frac{7}{18}, \frac{5}{9}$	-2	1;24
3	$\frac{7}{18}, \frac{5}{9}$	2	17;24	3	$\frac{1}{24}, \frac{5}{24}$	-2	1;24
3	$\frac{1}{24}, \frac{11}{24}$	-2	17;24	3	$\frac{5}{24}, \frac{7}{24}$	2	17;24
3	$\frac{7}{24}, \frac{11}{24}$	-2	1;24	3	$\frac{1}{30}, \frac{1}{5}$	-2	1, 49;120
3	$\frac{1}{30}, \frac{11}{30}$	-1	1, 41, 49, 89;120	3	$\frac{1}{30}, \frac{3}{5}$	-2	41, 89;120
3	$\frac{1}{5}, \frac{7}{30}$	2	41, 89;120	3	$\frac{1}{5}, \frac{11}{30}$	-2	1, 49;120
3	$\frac{1}{5}, \frac{17}{30}$	-2	41, 89;120	3	$\frac{7}{30}, \frac{2}{5}$	-2	1, 49;120
3	$\frac{7}{30}, \frac{17}{30}$	-1	1, 41, 49, 89;120	3	$\frac{11}{30}, \frac{3}{5}$	2	41, 89;120
3	$\frac{2}{5}, \frac{17}{30}$	-2	1, 49;120	3	$\frac{1}{60}, \frac{11}{60}$	-2	1, 49;120
3	$\frac{7}{60}, \frac{17}{60}$	-2	1, 49;120	3	$\frac{13}{60}, \frac{23}{60}$	-2	1, 49;120
3	$\frac{19}{60}, \frac{29}{60}$	-2	1, 49;120				
4	$0, \frac{1}{4}$	2	1;4	4	$\frac{1}{4}, \frac{1}{2}$	-2	1;4
4	$\frac{1}{4}, \frac{3}{4}$	-1	1;4	4	$\frac{1}{8}, \frac{3}{8}$	-2	1;8
4	$\frac{1}{8}, \frac{3}{8}$	2	5;8	4	$0, \frac{1}{12}$	2	13;24
4	$0, \frac{5}{12}$	2	13;24	4	$\frac{1}{12}, \frac{1}{6}$	-2	13;24
4	$\frac{1}{12}, \frac{1}{4}$	2	5;24	4	$\frac{1}{12}, \frac{1}{3}$	-2	1;24
4	$\frac{1}{12}, \frac{1}{2}$	-2	13;24	4	$\frac{1}{12}, \frac{7}{12}$	-1	1;12
4	$\frac{1}{12}, \frac{3}{4}$	-2	5;24	4	$\frac{1}{12}, \frac{3}{4}$	-1	13;24
4	$\frac{1}{12}, \frac{5}{6}$	-2	13;24	4	$\frac{1}{12}, \frac{11}{12}$	-1	13;24
4	$\frac{1}{6}, \frac{1}{4}$	2	5;8	4	$\frac{1}{6}, \frac{5}{12}$	2	13;24
4	$\frac{1}{6}, \frac{7}{12}$	-2	13;24	4	$\frac{1}{6}, \frac{3}{4}$	-2	5;8
4	$\frac{1}{4}, \frac{5}{12}$	-2	5;24	4	$\frac{1}{4}, \frac{7}{12}$	-2	5;24
4	$\frac{1}{4}, \frac{7}{12}$	-1	13;24	4	$\frac{1}{3}, \frac{7}{12}$	-2	1;24
4	$\frac{5}{12}, \frac{1}{2}$	-2	13;24	4	$\frac{5}{12}, \frac{7}{12}$	-1	13;24
4	$\frac{1}{24}, \frac{7}{24}$	-2	1;24	4	$\frac{1}{24}, \frac{7}{24}$	2	13;24

Table 4.4: (continued)

e	q_1, q_2	c	$s_0; m$	e	q_1, q_2	c	$s_0; m$
4	$\frac{1}{24}, \frac{11}{24}$	2	13;24	4	$\frac{5}{24}, \frac{7}{24}$	2	13;24
4	$\frac{5}{24}, \frac{11}{24}$	-2	1;24	4	$\frac{5}{24}, \frac{11}{24}$	2	13;24
4	$\frac{1}{60}, \frac{11}{60}$	2	73, 97;120	4	$\frac{7}{60}, \frac{17}{60}$	-2	73, 97;120
4	$\frac{13}{60}, \frac{23}{60}$	2	73, 97;120	4	$\frac{19}{60}, \frac{29}{60}$	-2	73, 97;120
5	$\frac{1}{5}, \frac{2}{5}$	2	0;1N	5	$\frac{1}{10}, \frac{1}{5}$	-4	11, 19;40
5	$\frac{1}{10}, \frac{1}{5}$	4	31, 39;40	5	$\frac{1}{10}, \frac{3}{10}$	1	7;8
5	$\frac{1}{10}, \frac{2}{5}$	$\frac{4}{3}$	31, 39;40	5	$\frac{1}{10}, \frac{2}{5}$	4	11, 19;40
5	$\frac{1}{10}, \frac{1}{2}$	2	7;8	5	$\frac{1}{5}, \frac{3}{10}$	$\frac{4}{3}$	31, 39;40
5	$\frac{1}{5}, \frac{3}{10}$	4	11, 19;40	5	$\frac{1}{5}, \frac{1}{2}$	4	31, 39;40
5	$\frac{3}{10}, \frac{2}{5}$	-4	31, 39;40	5	$\frac{3}{10}, \frac{2}{5}$	4	11, 19;40
5	$\frac{3}{10}, \frac{1}{2}$	-2	7;8	5	$\frac{2}{5}, \frac{1}{2}$	-4	31, 39;40
5	$\frac{1}{5}, \frac{1}{3}$	4	11, 14;15N	5	$\frac{1}{3}, \frac{2}{5}$	4	11, 14;15N
5	$\frac{1}{10}, \frac{1}{4}$	2	7;8	5	$\frac{1}{5}, \frac{1}{4}$	4	31, 39;40
5	$\frac{1}{4}, \frac{3}{10}$	2	7;8	5	$\frac{1}{4}, \frac{2}{5}$	4	31, 39;40
5	$\frac{1}{10}, \frac{1}{6}$	2	7;8	5	$\frac{1}{10}, \frac{1}{3}$	2	23;24
5	$\frac{1}{6}, \frac{1}{5}$	-4	11, 31, 59, 71, 79, 119;120	5	$\frac{1}{6}, \frac{3}{10}$	2	7;8
5	$\frac{1}{6}, \frac{2}{5}$	4	11, 31, 59, 71, 79, 119;120	5	$\frac{3}{10}, \frac{1}{3}$	-2	23;24
7	$\frac{1}{14}, \frac{2}{7}$	2	5;8	7	$\frac{1}{7}, \frac{11}{14}$	-2	5;8
7	$\frac{5}{14}, \frac{3}{7}$	-2	5;8				
8	$\frac{1}{8}, \frac{1}{4}$	4	7;8	8	$\frac{1}{8}, \frac{3}{8}$	2	3;4
8	$\frac{1}{8}, \frac{1}{2}$	4	7;8	8	$\frac{1}{8}, \frac{5}{8}$	-2	1;4
8	$\frac{1}{4}, \frac{3}{8}$	4	7;8	8	$\frac{3}{8}, \frac{1}{2}$	-4	7;8
8	$\frac{1}{24}, \frac{5}{24}$	2	5;24	8	$\frac{1}{24}, \frac{7}{24}$	2	5;12
8	$\frac{1}{8}, \frac{1}{6}$	4	7;8	8	$\frac{1}{8}, \frac{1}{3}$	4	23;24
8	$\frac{1}{6}, \frac{3}{8}$	4	7;8	8	$\frac{5}{24}, \frac{11}{24}$	-2	5;12
8	$\frac{7}{24}, \frac{11}{24}$	-2	5;24				
12	$\frac{1}{12}, \frac{1}{6}$	4	7, 11, 23;24	12	$\frac{1}{12}, \frac{1}{4}$	4	7;8
12	$\frac{1}{12}, \frac{1}{3}$	4	11, 19, 23;24	12	$\frac{1}{12}, \frac{5}{12}$	2	7, 11, 19, 23;24
12	$\frac{1}{12}, \frac{1}{2}$	4	7;8	12	$\frac{1}{6}, \frac{5}{12}$	4	7, 11, 23;24
12	$\frac{1}{4}, \frac{5}{12}$	4	7;8	12	$\frac{1}{3}, \frac{5}{12}$	4	11, 19, 23;24
12	$\frac{5}{12}, \frac{1}{2}$	-4	7;8	12	$\frac{1}{24}, \frac{5}{24}$	-4	19;24

Table 4.4: (continued)

e	q_1, q_2	c	$s_0; m$	e	q_1, q_2	c	$s_0; m$
12	$\frac{1}{24}, \frac{5}{24}$	4	7;24	12	$\frac{7}{24}, \frac{11}{24}$	-4	7;24
12	$\frac{7}{24}, \frac{11}{24}$	4	19;24	12	$\frac{1}{12}, \frac{1}{10}$	4	11, 59;120
12	$\frac{1}{12}, \frac{3}{10}$	4	11, 59;120	12	$\frac{1}{10}, \frac{5}{12}$	4	11, 59;120
12	$\frac{3}{10}, \frac{5}{12}$	4	11, 59;120				
15	$\frac{1}{15}, \frac{11}{15}$	-4	$\pm 2; 5\mathbf{P}$	15	$\frac{2}{15}, \frac{7}{15}$	-4	$\pm 2; 5\mathbf{P}$
15	$\frac{1}{30}, \frac{1}{5}$	4	29, 53, 77, 101;120	15	$\frac{1}{30}, \frac{11}{30}$	2	13, 29, 37, 53;120
15	$\frac{1}{30}, \frac{2}{5}$	4	13;24				61, 77, 101, 109;120
15	$\frac{1}{5}, \frac{11}{30}$	4	29, 53, 77, 101;120	15	$\frac{1}{5}, \frac{13}{30}$	4	13;24
15	$\frac{1}{5}, \frac{23}{30}$	-4	13;24	15	$\frac{7}{30}, \frac{2}{5}$	-4	29, 53, 77, 101;120
15	$\frac{7}{30}, \frac{17}{30}$	-2	13, 29;120	15	$\frac{7}{30}, \frac{17}{30}$	-2	37, 53, 61, 77;120
15	$\frac{11}{30}, \frac{2}{5}$	-4	13;24				101, 109;120
15	$\frac{2}{5}, \frac{17}{30}$	-4	29, 53, 77, 101;120	15	$\frac{1}{60}, \frac{11}{60}$	-4	61, 109;120
15	$\frac{7}{60}, \frac{17}{60}$	4	61, 109;120	15	$\frac{13}{60}, \frac{23}{60}$	4	61, 109;120
15	$\frac{19}{60}, \frac{29}{60}$	-4	61, 109;120				
20	$\frac{1}{20}, \frac{11}{20}$	-4	1, 9;20	20	$\frac{3}{20}, \frac{13}{20}$	-4	1, 9;20
20	$\frac{1}{60}, \frac{11}{60}$	4	17, 113;120	20	$\frac{7}{60}, \frac{17}{60}$	4	17, 113;120
20	$\frac{13}{60}, \frac{23}{60}$	-4	17, 113;120	20	$\frac{19}{60}, \frac{29}{60}$	-4	17, 113;120
24	$\frac{1}{24}, \frac{11}{24}$	4	7;12	24	$\frac{1}{24}, \frac{13}{24}$	-4	1;12
24	$\frac{1}{24}, \frac{17}{24}$	-4	5;8	24	$\frac{1}{24}, \frac{19}{24}$	-4	5;12
24	$\frac{5}{24}, \frac{7}{24}$	4	7;12	24	$\frac{5}{24}, \frac{13}{24}$	-4	5;8
24	$\frac{5}{24}, \frac{17}{24}$	-4	1;12	24	$\frac{7}{24}, \frac{13}{24}$	-4	5;12

Thus for example the last entry in the right hand column of the table asserts that

$$h(-24D) = -4 \sum_{\frac{7}{24}D < n < \frac{13}{24}D} \left(\frac{D}{n} \right)$$

for positive nonsquare discriminants $D \equiv 5 \pmod{12}$ and the first entry in the left

hand column of the first page of the table asserts that

$$h(D) = \frac{1}{3} \sum_{0 < n < \frac{1}{2}|D|} \left(\frac{D}{n} \right)$$

for negative discriminants $D \equiv 5 \pmod{8}$.

Chapter 5

Main Results

In this chapter we present the results of our research as well as stating and proving the main theorem.

5.1 Class Number Formulae of Dirichlet Type

We started our work by writing Maple code to reproduce the results in [18]. (See Appendix A and Appendix B for the programs).

In order to prove the class number formulae of Dirichlet type obtained in [18], we need the following two results. In 1982 Williams and Currie [28] proved the following theorem.

Theorem 5.1. *If $p \equiv 1 \pmod{4}$ is a prime and $d \not\equiv 0 \pmod{p}$ is the discriminant of an imaginary quadratic field, then*

$$h(dp) = \sum_{k=1}^{|d|} \left(\sum_{j=k}^{|d|} \left(\frac{d}{j} \right) \right) s(p, k, |d|), \quad (5.1)$$

where the sum $s(p, k, |d|)$ was defined in (4.1).

For our purposes, we require formulae for $h(-ep)$, where p is a prime greater than 3 and e is a positive integer such that $-ep$ is the discriminant of an imaginary quadratic field. So if p is a prime $p \equiv 1 \pmod{4}$ and e is a positive squarefree integer $\equiv 3 \pmod{4}$ not divisible by p , then Theorem 5.1 gives

$$h(-ep) = \sum_{k=1}^e \left(\sum_{j=k}^e \left(\frac{-e}{j} \right) \right) s(p, k, e). \quad (5.2)$$

We still need to take care of the case when $p \equiv 3 \pmod{4}$. Ota [25] has proved the following result. The conductor of a character $\chi \pmod{k}$ is defined in [1] as the smallest induced modulus d for χ .

Theorem 5.2. *Let d be a fundamental negative discriminant. Let $t > 1$ be an integer such that $(t, d) = 1$ and td is a fundamental discriminant. Also, it is assumed that the conductor of $\chi \stackrel{\text{set}}{=} \chi_{td}/\chi_d$ is prime to d , where $\chi_d(n) = \left(\frac{d}{n}\right)$. Then*

$$h(td) = 2 \sum_{j=1}^{\lfloor t/2 \rfloor} \left(\sum_{l=1}^{j-1} \chi(l) \right) S(d, j, t). \quad (5.3)$$

For our purposes $p \equiv 3 \pmod{4}$ is prime and $e > 1$ is a positive squarefree integer $\equiv 0, 1 \pmod{4}$ not divisible by p . Thus $-p$, e and $-ep$ are fundamental discriminants. Using e for t and $-p$ for d in Theorem 5.2, yields, as

$$\chi = \frac{\chi_{-ep}}{\chi_{-p}} = \frac{\left(\frac{-ep}{n}\right)}{\left(\frac{-p}{n}\right)} = \frac{\left(\frac{e}{n}\right)\left(\frac{-p}{n}\right)}{\left(\frac{-p}{n}\right)} = \left(\frac{e}{n}\right),$$

and

$$\begin{aligned} S(-p, j, e) &= \sum_{(j-1)|-p|/e < a < j|-p|/e} \left(\frac{-p}{a}\right) \\ &= \sum_{(j-1)|-p|/e < a < j|-p|/e} \left(\frac{a}{|-p|}\right) \\ &= \sum_{(j-1)p/e < a < jp/e} \left(\frac{a}{p}\right) = s(p, j, e), \end{aligned}$$

the formula

$$h(-ep) = 2 \sum_{j=1}^{\lfloor e/2 \rfloor} \left(\sum_{l=1}^{j-1} \left(\frac{e}{l}\right) \right) s(p, j, e). \quad (5.4)$$

The only case that is left is $e = 1$. For this case $p \equiv 3 \pmod{4}$ (so that $-ep$ is a fundamental discriminant) and we recall Dirichlet's formulae [8]

$$h(-p) = \frac{1}{3} \sum_{0 < n < \frac{p}{2}} \left(\frac{n}{p}\right), \quad p \equiv 3 \pmod{8}, \quad (5.5)$$

which we saw previously as (4.3), and

$$h(-p) = \sum_{0 < n < \frac{p}{2}} \left(\frac{n}{p}\right), \quad p \equiv 7 \pmod{8}. \quad (5.6)$$

For the purpose of our proofs we can rewrite (5.5) as

$$h(-p) = \frac{1}{3}s(p, 1, 2), \quad p \equiv 3 \pmod{8}, \quad (5.7)$$

and (5.6) as

$$h(-p) = s(p, 1, 2), \quad p \equiv 7 \pmod{8}. \quad (5.8)$$

Now we have a way to represent $h(-ep)$ as a linear combination of short character sums. We will use this together with the symmetries proved in [19] to prove our formulae.

The programs found possible class number formulae of Dirichlet type (see (4.4)) by

- inputting the value of e ,
- running l through the range $1 < le \leq 30$,
- calculating the modulus of the congruence condition on p as $m = 4 \prod_{q|le} q$, where q runs through the primes dividing le ,
- letting r run through integers with $(r, 2le) = 1$ and $-er \equiv 0, 1 \pmod{4}$ in the range $1 \leq r \leq m$,
- letting k run through the range $1 \leq k \leq \frac{1}{2}(le + 1)$,

- for each triplet (l, r, k) determining if we have a possible class number formula of Dirichlet type by
 - finding a prime $p \equiv r \pmod{m}$ such that $-ep$ is the discriminant of an imaginary quadratic field,
 - calculating $s(p, k, le)$ (note: if this is zero no such formula can exist),
 - calculating $h(-ep)$,
 - calculating $c = \frac{h(-ep)}{s(p, k, le)}$,
 - repeating the calculation of c for 10 different primes p . If the value of c is the same for all of these primes we have a possible formula.
- once a possible class number formula is found the symmetries in the short sums $s(p, k, le)$ are determined by using the relations

$$\triangleright \sum_{k=1}^{le} s(p, k, le) = 0,$$

$$\triangleright s(p, k, le) - \left(\frac{-1}{p}\right) s(p, le - k + 1, le) = 0,$$

$$\triangleright \text{from Theorem 4.1 we get, for each prime } q \mid le \text{ and each } k' \text{ with } 1 \leq k' \leq le/q,$$

$$\begin{aligned} s(p, k', le/q) &= \left(\frac{q}{p}\right) \sum_{j=0}^{[(q-1)/2]} s(p, jle/q + k', le) \\ &- \left(\frac{-q}{p}\right) \sum_{j=1}^{[q/2]} s(p, jle/q - k' + 1, le) = 0. \end{aligned}$$

We can then use the fact that

$$\begin{aligned}
 s(p, k', le/q) &= \sum_{\frac{(k'-1)p}{le/q} < a < \frac{k'p}{le/q}} \left(\frac{a}{p} \right) \\
 &= \sum_{\frac{(k'q-q)p}{le} < a < \frac{k'qp}{le}} \left(\frac{a}{p} \right) = \sum_{k=k'q-q+1}^{k'q} s(p, k, le)
 \end{aligned}$$

to get more linear relations.

- ▷ Using the linear relations described above, the homogenous system of equations in the $s(p, k, le)$ can be solved which yields parametric equations for the $s(p, k, le)$.

- check the formula by
 - using (5.2), (5.4), (5.7), or (5.8) to express $h(-ep)$ as a linear combination of short character sums,
 - using the symmetries to rewrite $h(-ep)$ in terms of the parameters,
 - using the symmetries to rewrite the possible formula in terms of the parameters and compare it to $h(-ep)$. If they match the candidate is a valid class number formula of Dirichlet type.

When the program was allowed to run using the parameters used in [18], the same set of formulae as those in Table 4.2 was returned. When, as in [27], the parameters were extended to $1 < le \leq 60$ the additional new formulae

$$h(-12p) = 4 \sum_{\frac{1}{12}p < n < \frac{1}{10}p} \left(\frac{n}{p} \right), \quad p \equiv 11, 59 \pmod{120} \quad (5.9)$$

were found. Note that on page 6 of [27] this is reported incorrectly as

$$h(-12p) = 4 \sum_{\frac{1}{12}p < n < \frac{1}{10}p} \left(\frac{n}{p} \right), \quad p \equiv 11, 59 \pmod{60},$$

even though it was reported correctly on page 201 of [27] and in [26] as in (5.9).

The next step was to extend the programs to reproduce the results in [26]. The main programs were nearly identical, the only difference being instead of searching for formulae of the form

$$h(-ep) = c \sum_{\frac{(k-1)}{le} < n < \frac{k}{le}} \left(\frac{n}{p} \right), \quad p \equiv r \pmod{4 \prod_{q|le} q}, \quad (5.10)$$

we are looking for those of the form

$$h(-e|D|) = c \sum_{q_1|D| < n < q_2|D|} \left(\frac{D}{n} \right), \quad |D| \equiv s_0 \pmod{m}. \quad (5.11)$$

Since these involve the Kronecker symbol $\left(\frac{D}{n} \right)$ instead of the Legendre symbol $\left(\frac{n}{p} \right)$, we must extend Theorem 4.1 to deal with the Kronecker symbol. This extension is provided by the following theorem. The proof follows the method of the proof of (4.1) in [19].

Theorem 5.3. *If D is a discriminant and q is a positive integer with $(q, D) = 1$, then*

$$\left(\frac{D}{q}\right) S(r, n, D) = \sum_{j=0}^{\lfloor (q-1)/2 \rfloor} S(jn+r, nq, D) + \operatorname{sgn}(D) \sum_{j=1}^{\lfloor q/2 \rfloor} S(jn-r+1, nq, D). \quad (5.12)$$

Proof: For any q such that $(q, D) = 1$, define the set T_j as:

$$T_j = \left\{ a \mid a \equiv j|D| \pmod{q}, \frac{(r-1)|D|}{n} < a < \frac{r|D|}{n} \right\}.$$

Thus if we choose the values of j such that they form a complete set of residues mod q , then the T_j are disjoint and each a belongs to a unique T_j .

Define $S_j(r, n, D)$ as:

$$S_j(r, n, D) = \sum_{a \in T_j} \left(\frac{D}{a}\right).$$

Thus if we choose our complete set of residues to be $\{j \mid -\lfloor (q-1)/2 \rfloor \leq j \leq \lfloor q/2 \rfloor\}$

we obtain:

$$S(r, n, D) = \sum_{j=-\lfloor (q-1)/2 \rfloor}^{\lfloor q/2 \rfloor} S_j(r, n, D).$$

Now, since $a \equiv j|D| \pmod{q}$ for $a \in T_j$, we can write this as $a = j|D| + a'q$, so $a' = \frac{a - j|D|}{q}$. Also, since $\frac{(r-1)|D|}{n} < a < \frac{r|D|}{n}$, we must have $\frac{(r-1-jn)|D|}{qn} < a' < \frac{(r-jn)|D|}{qn}$.

So, since $r \leq n$, a' will have the opposite sign of j . Thus we consider two cases.

Case 1: $j > 0$ so $a' < 0$.

We can rewrite $S_j(n, r, D)$ as:

$$\begin{aligned}
 S_j(n, r, D) &= \sum_{\frac{(r-1-jn)|D|}{qn} < a' < \frac{(r-jn)|D|}{qn}} \left(\frac{D}{j|D| + a'q} \right) \\
 &= \sum_{\frac{(jn-r)|D|}{qn} < |a'| < \frac{(jn-r+1)|D|}{qn}} \left(\frac{D}{j|D| - |a'|q} \right) \\
 &= \sum_{\frac{(jn-r)|D|}{qn} < |a'| < \frac{(jn-r+1)|D|}{qn}} \left(\frac{D}{|a'|q} \right) \operatorname{sgn}(D) \\
 &= \operatorname{sgn}(D) \left(\frac{D}{q} \right) \sum_{\frac{(jn-r)|D|}{qn} < |a'| < \frac{(jn-r+1)|D|}{qn}} \left(\frac{D}{|a'|} \right) \\
 &= \operatorname{sgn}(D) \left(\frac{D}{q} \right) S(jn - r + 1, nq, D). \tag{5.13}
 \end{aligned}$$

Case 2: $j \leq 0$ so $a' \geq 0$.

We can rewrite $S_j(n, r, D)$ as:

$$\begin{aligned}
 S_j(n, r, D) &= \sum_{\frac{(r-1-jn)|D|}{qn} < a' < \frac{(r-jn)|D|}{qn}} \left(\frac{D}{j|D| + a'q} \right) \\
 &= \sum_{\frac{(r-1-jn)|D|}{qn} < a' < \frac{(r-jn)|D|}{qn}} \left(\frac{D}{a'q} \right) \\
 &= \left(\frac{D}{q} \right) \sum_{\frac{(r-1-jn)|D|}{qn} < a' < \frac{(r-jn)|D|}{qn}} \left(\frac{D}{a'} \right) \\
 &= \left(\frac{D}{q} \right) S(|j|n + r, nq, D). \tag{5.14}
 \end{aligned}$$

Putting (5.13) and (5.14) together we have

$$\begin{aligned}
S(r, n, D) &= \sum_{j=-[(q-1)/2]}^{[q/2]} S_j(r, n, D) \\
&= \sum_{j=0}^{[(q-1)/2]} S_{-j}(r, n, D) + \sum_{j=1}^{[q/2]} S_j(r, n, D) \\
&= \left(\frac{D}{q}\right) \sum_{j=0}^{[(q-1)/2]} S(jn + r, nq, D) \\
&\quad + \operatorname{sgn}(D) \left(\frac{D}{q}\right) \sum_{j=1}^{[q/2]} S(jn - r + 1, nq, D).
\end{aligned}$$

Thus

$$\left(\frac{D}{q}\right) S(r, n, D) = \sum_{j=0}^{[(q-1)/2]} S(jn + r, nq, D) + \operatorname{sgn}(D) \sum_{j=1}^{[q/2]} S(jn - r + 1, nq, D) \quad \square$$

We also require different class number formulae in terms of the Kronecker symbol.

This is provided by the following theorem of Lerch [21] and Mordell [23], a proof of which is given in [27].

Theorem 5.4. *Let $d_1 < 0$ and $d_2 > 1$ be coprime fundamental discriminants. Then*

$$h(d_1 d_2) = 2 \sum_{1 \leq a \leq |d_1|/2} \left(\frac{d_1}{a}\right) \sum_{1 \leq n \leq ad_2/|d_1|} \left(\frac{d_2}{n}\right) \quad (5.15)$$

$$= -2 \sum_{1 \leq a \leq d_2/2} \left(\frac{d_2}{a}\right) \sum_{1 \leq n \leq a|d_1|/d_2} \left(\frac{d_1}{n}\right). \quad (5.16)$$

For our purposes we use these equations to obtain the following two lemmas.

Lemma 5.1. *If $D > 0$ is an odd fundamental discriminant, then $-e|D|$ is a fundamental negative discriminant if and only if $(e, D) = 1$ and $-e$ is a fundamental negative discriminant. Thus $e \equiv 3 \pmod{4}$ or $e \equiv 0 \pmod{4}$ and $\frac{e}{4} \equiv 1, 2 \pmod{4}$.*

In this case

$$h(-e|D|) = 2 \sum_{1 \leq a \leq e/2} \left(\sum_{a \leq k \leq e/2} \left(\frac{-e}{k} \right) \right) S(D, a, e). \quad (5.17)$$

Proof: From (5.15) we get

$$\begin{aligned} h(-e|D|) &= 2 \sum_{1 \leq a \leq e/2} \left(\frac{-e}{a} \right) \sum_{1 \leq n \leq a|D|/e} \left(\frac{D}{n} \right) \\ &= 2 \sum_{1 \leq a \leq e/2} \left(\frac{-e}{a} \right) \sum_{1 \leq n \leq a} S(D, n, e) \\ &= 2 \sum_{1 \leq a \leq e/2} \sum_{1 \leq n \leq a} \left(\frac{-e}{a} \right) S(D, n, e) \\ &= 2 \sum_{1 \leq n \leq e/2} \sum_{n \leq a \leq e/2} \left(\frac{-e}{a} \right) S(D, n, e) \\ &= 2 \sum_{1 \leq a \leq e/2} \sum_{a \leq n \leq e/2} \left(\frac{-e}{n} \right) S(D, a, e). \quad \square \end{aligned}$$

Lemma 5.2. *If $D < 0$ is an odd fundamental discriminant, then $-e|D|$ with $e > 1$ is a fundamental negative discriminant if and only if $(e, D) = 1$ and e is a fundamental discriminant. Thus $e \equiv 1 \pmod{4}$ or $e \equiv 0 \pmod{4}$ and $\frac{e}{4} \equiv 2, 3 \pmod{4}$. In this case*

$$h(-e|D|) = -2 \sum_{1 \leq a \leq e/2} \left(\sum_{a \leq k \leq e/2} \left(\frac{e}{k} \right) \right) S(D, a, e). \quad (5.18)$$

Proof: The proof of Lemma 5.2 is essentially the same as that of Lemma 5.1. using (5.16) in place of (5.15). $\square$

So, all we had to do at this point for our program was

- write a routine to calculate the value of the Kronecker symbol $\left(\frac{D}{n}\right)$,
- let l run through the range $1 \leq le \leq 60$,
- instead of letting $1 \leq k \leq \frac{1}{2}(le + 1)$, we let $1 \leq b \leq le$, where $q_2 = \frac{b}{le}$ and let $q_1 = \frac{a}{le}$. Then a is allowed to vary such that $0 \leq q_1 < q_2$, $q_1 + q_2 \leq 1$ and $q_2 \leq \frac{1}{2}$ if $q_1 = 0$,
- use the modified symmetries given by Theorem 5.3,
- use the class number formulae given in Lemmas 5.1 and 5.2.

When the new programs were run using the parameters defined in [26], the output was the same set of 222 formulae found by Schinzel, Urbanowicz and Van Wamelen (see Table 4.4). See Appendix A and Appendix C for the programs.

5.2 Two Term Class Number Formula of Dirichlet Type

The objective of our work is to generalize the work started in [18] and [26] to look at two term class number formulae of the Dirichlet type, that is, formulae such as

$$h(-e|D|) = c_1 \sum_{q_1|D| < n < q_2|D|} \left(\frac{D}{n}\right) + c_2 \sum_{q_3|D| < n < q_4|D|} \left(\frac{D}{n}\right), \quad |D| \equiv s_0 \pmod{m}, \quad (5.19)$$

where

- e is a positive integer,
- D is an odd fundamental discriminant with $(D, e) = 1$ such that $-e|D| < -4$ is a fundamental discriminant,
- $c_1, c_2 \in \mathbb{Q}$,
- $q_1, q_2, q_3, q_4 \in \mathbb{Q}$ with least common denominator r such that $e \mid r$,
- $0 \leq q_1 < q_2 \leq q_3 < q_4 \leq \frac{1}{2}$,
- $q_2 = q_3$ is allowed only if $c_1 \neq c_2$,
- $m = 4 \prod_{p|r} p$,
- $s_0 \in \{1, 2, \dots, m-1\}$ and $(s_0, m) = 1$,
- it must be checked that neither of the short character sums is itself a rational multiple of the class number. We can check this by seeing if the ratios $h(-e|D|)/S'(D, q_1, q_2)$, $h(-e|D|)/S'(D, q_3, q_4)$ and $S'(D, q_1, q_2)/S'(D, q_3, q_4)$ change as we vary the values of D .

A few formulae of the type (5.19) have appeared in the literature. For example Dirichlet [8] has shown that if d is a positive fundamental discriminant with $d \equiv 1 \pmod{4}$ then

$$h(-8d) = 2 \sum_{0 < n < \frac{d}{8}} \left(\frac{d}{n} \right) - 2 \sum_{\frac{3}{8}d < n < \frac{d}{2}} \left(\frac{d}{n} \right).$$

The algorithm for finding two term class number formulae of the Dirichlet type is essentially the same as the algorithm for the solutions found in [26] with adjustments to go through all possible q_1 , q_2 , q_3 and q_4 . See Appendix A and Appendix D for the programs.

Since the programs reproduced exactly the results in [18] and [26], we have confidence that the results for two term class number formulae are correct and complete in the ranges considered and under the symmetries used.

5.3 The Results

The programs were run with the limits $1 \leq e \leq 30$ and the least common denominator of q_1 , q_2 , q_3 and $q_4 \leq 30$. When the programs were run 8316 formulae were found.

The solutions are organized into tables in the following pages. Each table is for a single value of e . Within the tables the solutions are grouped together into sections that satisfy the same congruence relation $|D| \equiv s_0 \pmod{m}$.

$$h(-e|D|) = c_1 \sum_{q_1|D| < n < q_2|D|} \left(\frac{D}{n}\right) + c_2 \sum_{q_3|D| < n < q_4|D|} \left(\frac{D}{n}\right), |D| \equiv s_0 \pmod{m}.$$

For the case $e = 1$ there were 1958 formulae, given below.

Table 5.1: Two Term Dirichlet Type Formulae, $e = 1$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 3 \pmod{20}$							
$\frac{2}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{2}{5}$				
$ D \equiv 7 \pmod{20}$							
$\frac{2}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{2}{5}$				
$ D \equiv 11 \pmod{20}$							
1	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{5}, \frac{2}{5}$				
$ D \equiv 19 \pmod{20}$							
1	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{5}, \frac{2}{5}$				
$ D \equiv 3 \pmod{8}$							
$\frac{2}{3}$	$0, \frac{1}{8}$	$\frac{1}{3}$	$\frac{1}{8}, \frac{3}{8}$	$\frac{1}{3}$	$0, \frac{1}{8}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{3}{8}$
$\frac{-1}{3}$	$\frac{1}{8}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{3}{8}$	$\frac{1}{3}$	$\frac{1}{8}, \frac{3}{8}$	$\frac{2}{3}$	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 7 \pmod{8}$							
1	$0, \frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{8}, \frac{3}{8}$	1	$0, \frac{1}{8}$	1	$\frac{1}{4}, \frac{3}{8}$
1	$0, \frac{1}{8}$	-1	$\frac{3}{8}, \frac{1}{2}$				
$ D \equiv 3 \pmod{40}$							
$\frac{2}{3}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{1}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$	$\frac{-1}{3}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 7 \pmod{40}$							
$\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{10}, \frac{1}{5}$	1	$0, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$
$\frac{3}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{4}$	$0, \frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{5}, \frac{3}{10}$
$\frac{3}{2}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{-1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{4}$	$0, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{5}$
1	$0, \frac{1}{10}$	1	$\frac{1}{5}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{2}{5}$
1	$0, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{2}$	$0, \frac{3}{10}$	1	$\frac{3}{10}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{2}$	$\frac{2}{3}$	$0, \frac{1}{5}$	$\frac{-1}{3}$	$\frac{3}{10}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{2}$	-2	$\frac{1}{5}, \frac{3}{10}$	-3	$\frac{3}{10}, \frac{1}{2}$
$\frac{1}{2}$	$0, \frac{1}{10}$	-1	$\frac{2}{5}, \frac{1}{2}$	$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{-1}{2}$	$\frac{2}{5}, \frac{1}{2}$
$\frac{-1}{2}$	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{-3}{2}$	$\frac{2}{5}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{2}{5}$	-3	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{5}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{3}{10}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 11 \pmod{40}$							
1	$0, \frac{1}{5}$	1	$\frac{3}{10}, \frac{2}{5}$	-1	$0, \frac{1}{5}$	1	$\frac{2}{5}, \frac{1}{2}$
$\frac{-1}{2}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 19 \pmod{40}$							
1	$0, \frac{1}{5}$	1	$\frac{3}{10}, \frac{2}{5}$	-1	$0, \frac{1}{5}$	1	$\frac{2}{5}, \frac{1}{2}$
$\frac{-1}{2}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 23 \pmod{40}$							
$\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{10}, \frac{1}{5}$	1	$0, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$
$\frac{3}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{4}$	$0, \frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{5}, \frac{3}{10}$
$\frac{3}{2}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{-1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{4}$	$0, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{5}$
1	$0, \frac{1}{10}$	1	$\frac{1}{5}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{2}{5}$
1	$0, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{2}$	$0, \frac{3}{10}$	1	$\frac{3}{10}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{1}{2}$
1	$0, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{2}$	$\frac{2}{3}$	$0, \frac{1}{5}$	$\frac{-1}{3}$	$\frac{3}{10}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{2}$	-2	$\frac{1}{5}, \frac{3}{10}$	-3	$\frac{3}{10}, \frac{1}{2}$
$\frac{1}{2}$	$0, \frac{1}{10}$	-1	$\frac{2}{5}, \frac{1}{2}$	$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{-1}{2}$	$\frac{2}{5}, \frac{1}{2}$
$\frac{-1}{2}$	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{-3}{2}$	$\frac{2}{5}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{2}{5}$	-3	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{5}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{3}{10}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 27 \pmod{40}$							
$\frac{2}{3}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{1}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$	$\frac{-1}{3}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{3}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 31 \pmod{40}$							
1	0, $\frac{1}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	1	0, $\frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$
1	0, $\frac{1}{10}$	$\frac{2}{3}$	$\frac{1}{5}, \frac{3}{10}$	1	0, $\frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{3}{10}$
1	0, $\frac{1}{10}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{2}{5}$	1	0, $\frac{1}{10}$	1	$\frac{1}{5}, \frac{2}{5}$
1	0, $\frac{1}{10}$	-2	$\frac{3}{10}, \frac{2}{5}$	1	0, $\frac{1}{5}$	-1	$\frac{3}{10}, \frac{2}{5}$
1	0, $\frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$	1	0, $\frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{2}$
1	0, $\frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{2}$	1	0, $\frac{1}{5}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{1}{2}$
1	0, $\frac{1}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$	1	0, $\frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$
1	0, $\frac{3}{10}$	2	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 39 \pmod{40}$							
1	0, $\frac{1}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	1	0, $\frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$
1	0, $\frac{1}{10}$	$\frac{2}{3}$	$\frac{1}{5}, \frac{3}{10}$	1	0, $\frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{3}{10}$
1	0, $\frac{1}{10}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{2}{5}$	1	0, $\frac{1}{10}$	1	$\frac{1}{5}, \frac{2}{5}$
1	0, $\frac{1}{10}$	-2	$\frac{3}{10}, \frac{2}{5}$	1	0, $\frac{1}{5}$	-1	$\frac{3}{10}, \frac{2}{5}$
1	0, $\frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$	1	0, $\frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{2}$
1	0, $\frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{2}$	1	0, $\frac{1}{5}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{1}{2}$
1	0, $\frac{1}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$	1	0, $\frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$
1	0, $\frac{3}{10}$	2	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 7 \pmod{24}$							
1	0, $\frac{1}{12}$	$\frac{1}{2}$	$\frac{1}{12}, \frac{5}{12}$	1	0, $\frac{1}{12}$	1	$\frac{1}{6}, \frac{5}{12}$
1	0, $\frac{1}{12}$	1	$\frac{1}{4}, \frac{5}{12}$	1	$\frac{1}{12}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{5}{12}$
1	$\frac{1}{12}, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{5}{12}$	$\frac{1}{2}$	$\frac{1}{12}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{5}{12}$
1	0, $\frac{1}{12}$	-1	$\frac{5}{12}, \frac{1}{2}$	1	$\frac{1}{12}, \frac{1}{3}$	1	$\frac{5}{12}, \frac{1}{2}$
$ D \equiv 11 \pmod{24}$							
1	0, $\frac{1}{12}$	$\frac{1}{2}$	$\frac{1}{12}, \frac{5}{12}$	1	0, $\frac{1}{12}$	1	$\frac{1}{6}, \frac{5}{12}$
$\frac{1}{2}$	0, $\frac{1}{12}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{5}{12}$	-1	$\frac{1}{12}, \frac{1}{6}$	1	$\frac{1}{4}, \frac{5}{12}$
$-\frac{1}{2}$	$\frac{1}{12}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{5}{12}$	1	0, $\frac{1}{12}$	1	$\frac{1}{3}, \frac{5}{12}$
-1	$\frac{1}{12}, \frac{1}{4}$	1	$\frac{1}{3}, \frac{5}{12}$	-1	0, $\frac{1}{12}$	1	$\frac{5}{12}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{12}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{5}{12}, \frac{1}{2}$	1	$\frac{1}{12}, \frac{1}{4}$	1	$\frac{5}{12}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{12}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{5}{12}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{12}, \frac{5}{12}$	$\frac{1}{2}$	$\frac{5}{12}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 19 \pmod{24}$							
$\frac{1}{2}$	$0, \frac{1}{12}$	$\frac{1}{4}$	$\frac{1}{12}, \frac{5}{12}$	$\frac{1}{5}$	$0, \frac{1}{12}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{5}{12}$
$-\frac{1}{6}$	$\frac{1}{12}, \frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}, \frac{5}{12}$	$\frac{1}{4}$	$0, \frac{1}{12}$	$\frac{1}{4}$	$\frac{1}{4}, \frac{5}{12}$
$-\frac{1}{5}$	$\frac{1}{12}, \frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}, \frac{5}{12}$	$-\frac{1}{4}$	$\frac{1}{12}, \frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}, \frac{5}{12}$
$\frac{1}{2}$	$0, \frac{1}{12}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{5}{12}$	$-\frac{1}{3}$	$\frac{1}{12}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{3}, \frac{5}{12}$
$-\frac{1}{2}$	$\frac{1}{12}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{5}{12}$	1	$0, \frac{1}{12}$	-1	$\frac{5}{12}, \frac{1}{2}$
-1	$\frac{1}{12}, \frac{1}{4}$	-1	$\frac{5}{12}, \frac{1}{2}$	1	$\frac{1}{12}, \frac{1}{3}$	1	$\frac{5}{12}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{12}, \frac{5}{12}$	1	$\frac{5}{12}, \frac{1}{2}$				
$ D \equiv 23 \pmod{24}$							
1	$0, \frac{1}{12}$	$\frac{1}{2}$	$\frac{1}{12}, \frac{5}{12}$	1	$0, \frac{1}{12}$	1	$\frac{1}{6}, \frac{5}{12}$
1	$0, \frac{1}{12}$	1	$\frac{1}{4}, \frac{5}{12}$	1	$0, \frac{1}{12}$	1	$\frac{1}{3}, \frac{5}{12}$
1	$0, \frac{1}{12}$	-1	$\frac{5}{12}, \frac{1}{2}$				
$ D \equiv 3 \pmod{56}$							
$\frac{1}{3}$	$0, \frac{1}{7}$	$\frac{1}{3}$	$\frac{3}{14}, \frac{1}{2}$	$\frac{1}{3}$	$0, \frac{1}{14}$	$\frac{1}{3}$	$\frac{2}{7}, \frac{1}{2}$
$\frac{1}{3}$	$0, \frac{5}{14}$	$\frac{1}{3}$	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 11 \pmod{56}$							
$\frac{1}{2}$	$\frac{1}{14}, \frac{1}{7}$	$\frac{1}{2}$	$\frac{3}{14}, \frac{2}{7}$	$\frac{1}{4}$	$0, \frac{1}{7}$	$\frac{1}{4}$	$\frac{3}{14}, \frac{1}{2}$
$\frac{1}{2}$	$0, \frac{1}{14}$	$\frac{1}{2}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{2}$	$0, \frac{5}{14}$	$\frac{1}{2}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 15 \pmod{56}$							
2	$\frac{1}{14}, \frac{1}{7}$	-1	$\frac{1}{7}, \frac{3}{14}$	1	$0, \frac{1}{7}$	1	$\frac{2}{7}, \frac{5}{14}$
1	$\frac{1}{14}, \frac{2}{7}$	-2	$\frac{2}{7}, \frac{5}{14}$	1	$0, \frac{1}{14}$	1	$\frac{1}{7}, \frac{3}{7}$
1	$0, \frac{3}{14}$	-1	$\frac{2}{7}, \frac{3}{7}$	$\frac{2}{3}$	$0, \frac{2}{7}$	$\frac{1}{3}$	$\frac{5}{14}, \frac{3}{7}$
2	$\frac{3}{14}, \frac{5}{14}$	3	$\frac{5}{14}, \frac{3}{7}$	-1	$\frac{1}{14}, \frac{3}{14}$	-3	$\frac{3}{7}, \frac{1}{2}$
-1	$\frac{1}{7}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 19 \pmod{56}$							
$\frac{1}{3}$	$0, \frac{1}{7}$	$\frac{1}{3}$	$\frac{3}{14}, \frac{1}{2}$	$\frac{1}{3}$	$0, \frac{1}{14}$	$\frac{1}{3}$	$\frac{2}{7}, \frac{1}{2}$
$\frac{1}{3}$	$0, \frac{5}{14}$	$\frac{1}{3}$	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 23 \pmod{56}$							
2	$\frac{1}{14}, \frac{1}{7}$	-1	$\frac{1}{7}, \frac{3}{14}$	1	$0, \frac{1}{7}$	1	$\frac{2}{7}, \frac{5}{14}$
1	$\frac{1}{14}, \frac{2}{7}$	-2	$\frac{2}{7}, \frac{5}{14}$	1	$0, \frac{1}{14}$	1	$\frac{1}{7}, \frac{3}{7}$
1	$0, \frac{3}{14}$	-1	$\frac{2}{7}, \frac{3}{7}$	$\frac{2}{3}$	$0, \frac{2}{7}$	$\frac{1}{3}$	$\frac{5}{14}, \frac{3}{7}$
2	$\frac{3}{14}, \frac{5}{14}$	3	$\frac{5}{14}, \frac{3}{7}$	-1	$\frac{1}{14}, \frac{3}{14}$	-3	$\frac{3}{7}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{1}{7}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 27 \pmod{56}$							
$\frac{1}{3}$	$0, \frac{1}{7}$	$\frac{1}{3}$	$\frac{3}{14}, \frac{1}{2}$	$\frac{1}{3}$	$0, \frac{1}{14}$	$\frac{1}{3}$	$\frac{2}{7}, \frac{1}{2}$
$\frac{1}{3}$	$0, \frac{5}{14}$	$\frac{1}{3}$	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 31 \pmod{56}$							
1	$0, \frac{1}{7}$	1	$\frac{2}{7}, \frac{5}{14}$	1	$0, \frac{1}{14}$	1	$\frac{1}{7}, \frac{3}{7}$
1	$0, \frac{3}{14}$	-1	$\frac{2}{7}, \frac{3}{7}$	1	$0, \frac{2}{7}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{3}{7}$
$ D \equiv 39 \pmod{56}$							
2	$\frac{1}{14}, \frac{1}{7}$	-1	$\frac{1}{7}, \frac{3}{14}$	1	$0, \frac{1}{7}$	1	$\frac{2}{7}, \frac{5}{14}$
1	$\frac{1}{14}, \frac{2}{7}$	-2	$\frac{2}{7}, \frac{5}{14}$	1	$0, \frac{1}{14}$	1	$\frac{1}{7}, \frac{3}{7}$
1	$0, \frac{3}{14}$	-1	$\frac{2}{7}, \frac{3}{7}$	$\frac{2}{3}$	$0, \frac{2}{7}$	$\frac{1}{3}$	$\frac{5}{14}, \frac{3}{7}$
2	$\frac{3}{14}, \frac{5}{14}$	3	$\frac{5}{14}, \frac{3}{7}$	-1	$\frac{1}{14}, \frac{3}{14}$	-3	$\frac{3}{7}, \frac{1}{2}$
-1	$\frac{1}{7}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 43 \pmod{56}$							
$\frac{1}{2}$	$\frac{1}{14}, \frac{1}{7}$	$\frac{1}{2}$	$\frac{3}{14}, \frac{2}{7}$	$\frac{1}{4}$	$0, \frac{1}{7}$	$\frac{1}{4}$	$\frac{3}{14}, \frac{1}{2}$
$\frac{1}{2}$	$0, \frac{1}{14}$	$\frac{1}{2}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{2}$	$0, \frac{5}{14}$	$\frac{1}{2}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 47 \pmod{56}$							
1	$0, \frac{1}{7}$	1	$\frac{2}{7}, \frac{5}{14}$	1	$0, \frac{1}{14}$	1	$\frac{1}{7}, \frac{3}{7}$
1	$0, \frac{3}{14}$	-1	$\frac{2}{7}, \frac{3}{7}$	1	$0, \frac{2}{7}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{3}{7}$
$ D \equiv 51 \pmod{56}$							
$\frac{1}{2}$	$\frac{1}{14}, \frac{1}{7}$	$\frac{1}{2}$	$\frac{3}{14}, \frac{2}{7}$	$\frac{1}{4}$	$0, \frac{1}{7}$	$\frac{1}{4}$	$\frac{3}{14}, \frac{1}{2}$
$\frac{1}{2}$	$0, \frac{1}{14}$	$\frac{1}{2}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{2}$	$0, \frac{5}{14}$	$\frac{1}{2}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 55 \pmod{56}$							
1	$0, \frac{1}{7}$	1	$\frac{2}{7}, \frac{5}{14}$	1	$0, \frac{1}{14}$	1	$\frac{1}{7}, \frac{3}{7}$
1	$0, \frac{3}{14}$	-1	$\frac{2}{7}, \frac{3}{7}$	1	$0, \frac{2}{7}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{3}{7}$
$ D \equiv 7 \pmod{60}$							
-1	$0, \frac{1}{15}$	1	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{2}{5}$	1	$0, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{2}{5}$	2	$0, \frac{2}{15}$	1	$\frac{2}{15}, \frac{7}{15}$
-1	$0, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{-1}{3}$	$\frac{1}{3}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{-1}{2}$	$\frac{2}{5}, \frac{7}{15}$				

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 11 \pmod{60}$							
1	$0, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$				
$ D \equiv 19 \pmod{60}$							
1	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{4}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{2}{5}$	1	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 23 \pmod{60}$							
1	$\frac{1}{15}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{4}{15}$	$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{2}{15}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 31 \pmod{60}$							
1	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{4}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{2}{5}$	1	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 43 \pmod{60}$							
2	$0, \frac{1}{15}$	1	$\frac{1}{15}, \frac{4}{15}$	-1	$0, \frac{1}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{2}{5}$
1	$0, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{2}{5}$
2	$0, \frac{2}{15}$	1	$\frac{2}{15}, \frac{7}{15}$	-1	$0, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{-1}{3}$	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{-1}{2}$	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 47 \pmod{60}$							
1	$\frac{1}{15}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{4}{15}$	$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{2}{15}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 59 \pmod{60}$							
1	$0, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$				
$ D \equiv 3 \pmod{8}$							
$\frac{-1}{3}$	$\frac{1}{8}, \frac{3}{16}$	$\frac{1}{3}$	$\frac{5}{16}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{16}, \frac{3}{8}$	$\frac{1}{3}$	$\frac{7}{16}, \frac{1}{2}$
$ D \equiv 7 \pmod{8}$							
1	$0, \frac{3}{16}$	-1	$\frac{5}{16}, \frac{3}{8}$	1	$0, \frac{1}{16}$	1	$\frac{1}{8}, \frac{7}{16}$
$ D \equiv 7 \pmod{24}$							
-2	$\frac{1}{18}, \frac{1}{9}$	1	$\frac{1}{9}, \frac{5}{18}$	1	$0, \frac{1}{9}$	1	$\frac{2}{9}, \frac{7}{18}$
-1	$\frac{1}{18}, \frac{2}{9}$	2	$\frac{2}{9}, \frac{7}{18}$	$\frac{3}{2}$	$0, \frac{2}{9}$	$\frac{-1}{2}$	$\frac{5}{18}, \frac{7}{18}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{1}{9}, \frac{2}{9}$	-1	$\frac{1}{3}, \frac{7}{18}$	1	$0, \frac{1}{18}$	1	$\frac{1}{9}, \frac{4}{9}$
1	$0, \frac{2}{9}$	-1	$\frac{5}{18}, \frac{4}{9}$	1	$\frac{1}{18}, \frac{1}{9}$	-1	$\frac{1}{3}, \frac{4}{9}$
$\frac{1}{4}$	$\frac{1}{18}, \frac{5}{18}$	$-\frac{3}{4}$	$\frac{1}{3}, \frac{4}{9}$	$\frac{1}{3}$	$\frac{1}{9}, \frac{5}{18}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{4}{9}$
2	$0, \frac{2}{9}$	1	$\frac{7}{18}, \frac{4}{9}$	-2	$\frac{1}{6}, \frac{2}{9}$	-1	$\frac{7}{18}, \frac{4}{9}$
$\frac{2}{3}$	$\frac{2}{9}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{7}{18}, \frac{4}{9}$	-2	$\frac{5}{18}, \frac{7}{18}$	-3	$\frac{7}{18}, \frac{4}{9}$
1	$\frac{1}{18}, \frac{5}{18}$	3	$\frac{4}{9}, \frac{1}{2}$	1	$\frac{1}{9}, \frac{5}{18}$	2	$\frac{4}{9}, \frac{1}{2}$
$ D \equiv 11 \pmod{24}$							
1	$0, \frac{1}{18}$	-1	$\frac{1}{6}, \frac{2}{9}$	1	$0, \frac{1}{9}$	-1	$\frac{1}{6}, \frac{5}{18}$
1	$0, \frac{1}{18}$	1	$\frac{2}{9}, \frac{1}{3}$	1	$0, \frac{1}{9}$	1	$\frac{5}{18}, \frac{1}{3}$
$\frac{1}{3}$	$0, \frac{1}{18}$	$\frac{1}{3}$	$\frac{2}{9}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{18}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{2}{9}, \frac{1}{2}$
$\frac{1}{3}$	$0, \frac{1}{9}$	$\frac{1}{3}$	$\frac{5}{18}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{9}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{5}{18}, \frac{1}{2}$
$\frac{1}{3}$	$0, \frac{7}{18}$	$\frac{1}{3}$	$\frac{4}{9}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{18}$	$\frac{1}{2}$	$\frac{4}{9}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{3}, \frac{7}{18}$	$\frac{1}{2}$	$\frac{4}{9}, \frac{1}{2}$				
$ D \equiv 19 \pmod{24}$							
$-\frac{1}{2}$	$0, \frac{1}{9}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{5}{18}$	$-\frac{1}{2}$	$\frac{1}{18}, \frac{1}{9}$	$\frac{1}{2}$	$\frac{2}{9}, \frac{5}{18}$
$\frac{1}{3}$	$0, \frac{1}{18}$	$\frac{1}{3}$	$\frac{2}{9}, \frac{1}{3}$	$-\frac{1}{4}$	$\frac{1}{18}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{2}{9}, \frac{1}{3}$
1	$0, \frac{1}{9}$	1	$\frac{5}{18}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{9}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{5}{18}, \frac{1}{3}$
$\frac{1}{4}$	$0, \frac{1}{18}$	$\frac{1}{4}$	$\frac{2}{9}, \frac{1}{2}$	$-\frac{1}{5}$	$\frac{1}{18}, \frac{1}{6}$	$\frac{1}{5}$	$\frac{2}{9}, \frac{1}{2}$
$\frac{1}{2}$	$0, \frac{1}{9}$	$\frac{1}{2}$	$\frac{5}{18}, \frac{1}{2}$	$-\frac{1}{3}$	$\frac{1}{9}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{5}{18}, \frac{1}{2}$
$\frac{1}{4}$	$0, \frac{7}{18}$	$\frac{1}{4}$	$\frac{4}{9}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{7}{18}$	$\frac{1}{5}$	$\frac{4}{9}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{3}, \frac{7}{18}$	$\frac{1}{2}$	$\frac{4}{9}, \frac{1}{2}$				
$ D \equiv 23 \pmod{24}$							
1	$0, \frac{1}{9}$	1	$\frac{2}{9}, \frac{7}{18}$	1	$0, \frac{2}{9}$	$-\frac{1}{3}$	$\frac{5}{18}, \frac{7}{18}$
1	$0, \frac{1}{18}$	1	$\frac{1}{9}, \frac{4}{9}$	1	$0, \frac{2}{9}$	-1	$\frac{5}{18}, \frac{4}{9}$
1	$0, \frac{2}{9}$	$\frac{1}{2}$	$\frac{7}{18}, \frac{4}{9}$				
$ D \equiv 3 \pmod{40}$							
$\frac{2}{3}$	$0, \frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$
$\frac{1}{3}$	$0, \frac{3}{20}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{7}{20}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{7}{20}$
$-\frac{1}{3}$	$\frac{3}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{7}{20}$	$\frac{1}{3}$	$0, \frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$
$\frac{1}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$	$-\frac{1}{3}$	$\frac{3}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$
$-\frac{1}{3}$	$\frac{3}{20}, \frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{7}{20}$	$\frac{1}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{2}{5}$	$-\frac{1}{3}$	$\frac{1}{5}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{2}{5}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$-\frac{1}{3}$	$\frac{1}{5}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$	$\frac{2}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{1}{20}, \frac{9}{20}$
$\frac{1}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{9}{20}$	$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{9}{20}$
$\frac{1}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{9}{20}$	$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{9}{20}$
$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{9}{20}$	$\frac{1}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$
$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$	$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$
$-\frac{1}{3}$	$\frac{1}{20}, \frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{2}{3}$	$\frac{7}{20}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{1}{20}, \frac{9}{20}$	$\frac{2}{3}$	$\frac{9}{20}, \frac{1}{2}$				
$ D \equiv 7 \pmod{40}$							
1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{1}{4}$	1	$0, \frac{1}{10}$	1	$\frac{1}{4}, \frac{3}{10}$
$\frac{2}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{3}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{4}, \frac{3}{10}$
-2	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{1}{4}, \frac{3}{10}$	1	$0, \frac{3}{20}$	1	$\frac{3}{10}, \frac{7}{20}$
$\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{4}, \frac{2}{5}$	$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{2}{5}$	-1	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{1}{4}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{4}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{3}{20}, \frac{7}{20}$	2	$\frac{7}{20}, \frac{2}{5}$	1	$0, \frac{1}{20}$	1	$\frac{1}{10}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{9}{20}$	-2	$\frac{1}{5}, \frac{1}{4}$	-1	$\frac{3}{10}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{1}{4}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{5}, \frac{1}{4}$	-1	$\frac{2}{5}, \frac{1}{2}$
-1	$\frac{1}{4}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 11 \pmod{40}$							
1	$0, \frac{3}{20}$	$\frac{1}{2}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{1}{2}$	$0, \frac{3}{20}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{7}{20}$
1	$\frac{1}{10}, \frac{3}{20}$	1	$\frac{1}{4}, \frac{7}{20}$	$-\frac{1}{2}$	$\frac{3}{20}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{7}{20}$
1	$0, \frac{3}{20}$	1	$\frac{3}{10}, \frac{7}{20}$	-1	$\frac{3}{20}, \frac{1}{4}$	1	$\frac{3}{10}, \frac{7}{20}$
$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{1}{4}, \frac{2}{5}$
$-\frac{1}{2}$	$\frac{1}{5}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{2}{5}$	-1	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{3}{10}, \frac{2}{5}$
1	$0, \frac{1}{20}$	$\frac{1}{2}$	$\frac{1}{20}, \frac{9}{20}$	1	$0, \frac{1}{20}$	1	$\frac{1}{10}, \frac{9}{20}$
$\frac{1}{2}$	$0, \frac{1}{20}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{9}{20}$	-1	$\frac{1}{20}, \frac{1}{10}$	1	$\frac{1}{4}, \frac{9}{20}$
$-\frac{1}{2}$	$\frac{1}{20}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{9}{20}$	1	$0, \frac{1}{20}$	1	$\frac{3}{10}, \frac{9}{20}$
-1	$\frac{1}{20}, \frac{1}{4}$	1	$\frac{3}{10}, \frac{9}{20}$	-1	$0, \frac{3}{20}$	1	$\frac{7}{20}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{2}$	$\frac{7}{20}, \frac{1}{2}$	1	$\frac{3}{20}, \frac{1}{4}$	1	$\frac{7}{20}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{3}{20}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{7}{20}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{1}{2}$	$\frac{7}{20}, \frac{1}{2}$
1	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{2}{5}, \frac{1}{2}$	-1	$0, \frac{1}{20}$	1	$\frac{9}{20}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{9}{20}, \frac{1}{2}$	1	$\frac{1}{20}, \frac{1}{4}$	1	$\frac{9}{20}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{20}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{9}{20}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{20}, \frac{9}{20}$	$\frac{1}{2}$	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 19 \pmod{40}$							
1	0, $\frac{3}{20}$	$\frac{1}{2}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{1}{2}$	0, $\frac{3}{20}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{7}{20}$
1	$\frac{1}{10}, \frac{3}{20}$	1	$\frac{1}{4}, \frac{7}{20}$	$-\frac{1}{2}$	$\frac{3}{20}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{7}{20}$
1	0, $\frac{3}{20}$	1	$\frac{3}{10}, \frac{7}{20}$	-1	$\frac{3}{20}, \frac{1}{4}$	1	$\frac{3}{10}, \frac{7}{20}$
$\frac{1}{2}$	0, $\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{1}{4}, \frac{2}{5}$
$-\frac{1}{2}$	$\frac{1}{5}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{2}{5}$	-1	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{3}{10}, \frac{2}{5}$
1	0, $\frac{1}{20}$	$\frac{1}{2}$	$\frac{1}{20}, \frac{9}{20}$	1	0, $\frac{1}{20}$	1	$\frac{1}{10}, \frac{9}{20}$
$\frac{1}{2}$	0, $\frac{1}{20}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{9}{20}$	-1	$\frac{1}{20}, \frac{1}{10}$	1	$\frac{1}{4}, \frac{9}{20}$
$-\frac{1}{2}$	$\frac{1}{20}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{9}{20}$	1	0, $\frac{1}{20}$	1	$\frac{3}{10}, \frac{9}{20}$
-1	$\frac{1}{20}, \frac{1}{4}$	1	$\frac{3}{10}, \frac{9}{20}$	-1	0, $\frac{3}{20}$	1	$\frac{7}{20}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{2}$	$\frac{7}{20}, \frac{1}{2}$	1	$\frac{3}{20}, \frac{1}{4}$	1	$\frac{7}{20}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{3}{20}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{7}{20}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{1}{2}$	$\frac{7}{20}, \frac{1}{2}$
1	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{2}{5}, \frac{1}{2}$	-1	0, $\frac{1}{20}$	1	$\frac{9}{20}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{9}{20}, \frac{1}{2}$	1	$\frac{1}{20}, \frac{1}{4}$	1	$\frac{9}{20}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{20}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{9}{20}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{20}, \frac{9}{20}$	$\frac{1}{2}$	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 23 \pmod{40}$							
1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{1}{4}$	1	0, $\frac{1}{10}$	1	$\frac{1}{4}, \frac{3}{10}$
$\frac{2}{3}$	0, $\frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{3}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{4}, \frac{3}{10}$
-2	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{1}{4}, \frac{3}{10}$	1	0, $\frac{3}{20}$	1	$\frac{3}{10}, \frac{7}{20}$
$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{4}, \frac{2}{5}$	$\frac{1}{2}$	0, $\frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{2}{5}$	-1	$\frac{1}{5}, \frac{1}{4}$	1	$\frac{1}{4}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{4}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{3}{20}, \frac{7}{20}$	2	$\frac{7}{20}, \frac{2}{5}$	1	0, $\frac{1}{20}$	1	$\frac{1}{10}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{9}{20}$	-2	$\frac{1}{5}, \frac{1}{4}$	-1	$\frac{3}{10}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{1}{4}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{5}, \frac{1}{4}$	-1	$\frac{2}{5}, \frac{1}{2}$
-1	$\frac{1}{4}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 27 \pmod{40}$							
$\frac{2}{3}$	0, $\frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$
$\frac{1}{3}$	0, $\frac{3}{20}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{7}{20}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{7}{20}$
$-\frac{1}{3}$	$\frac{3}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{7}{20}$	$\frac{1}{3}$	0, $\frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{7}{20}$
$\frac{1}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{7}{20}$	$-\frac{1}{3}$	$\frac{3}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{7}{20}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$-\frac{1}{3}$	$\frac{3}{20}, \frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{7}{20}$	$\frac{1}{3}$	$0, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{2}{5}$	$-\frac{1}{3}$	$\frac{1}{5}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{2}{5}$
$-\frac{1}{3}$	$\frac{1}{5}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{2}{5}$	$\frac{2}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{1}{20}, \frac{9}{20}$
$\frac{1}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{9}{20}$	$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{9}{20}$
$\frac{1}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{9}{20}$	$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{9}{20}$
$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{9}{20}$	$\frac{1}{3}$	$0, \frac{1}{20}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$
$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$	$-\frac{1}{3}$	$\frac{1}{20}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$
$-\frac{1}{3}$	$\frac{1}{20}, \frac{3}{10}$	$\frac{1}{3}$	$\frac{3}{10}, \frac{9}{20}$	$\frac{1}{3}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{2}{3}$	$\frac{7}{20}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{1}{20}, \frac{9}{20}$	$\frac{2}{3}$	$\frac{9}{20}, \frac{1}{2}$				
$ D \equiv 31 \pmod{40}$							
1	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{4}$	1	$0, \frac{1}{10}$	1	$\frac{1}{4}, \frac{3}{10}$
1	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{3}{10}$	1	$0, \frac{3}{20}$	1	$\frac{3}{10}, \frac{7}{20}$
1	$0, \frac{1}{10}$	2	$\frac{1}{4}, \frac{2}{5}$	1	$0, \frac{1}{5}$	1	$\frac{1}{4}, \frac{2}{5}$
1	$0, \frac{1}{20}$	1	$\frac{1}{10}, \frac{9}{20}$				
$ D \equiv 39 \pmod{40}$							
1	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{4}$	1	$0, \frac{1}{10}$	1	$\frac{1}{4}, \frac{3}{10}$
1	$0, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{3}{10}$	1	$0, \frac{3}{20}$	1	$\frac{3}{10}, \frac{7}{20}$
1	$0, \frac{1}{10}$	2	$\frac{1}{4}, \frac{2}{5}$	1	$0, \frac{1}{5}$	1	$\frac{1}{4}, \frac{2}{5}$
1	$0, \frac{1}{20}$	1	$\frac{1}{10}, \frac{9}{20}$				
$ D \equiv 19 \pmod{84}$							
1	$0, \frac{2}{21}$	1	$\frac{1}{7}, \frac{5}{21}$	1	$\frac{2}{21}, \frac{1}{7}$	1	$\frac{5}{21}, \frac{1}{3}$
1	$0, \frac{1}{21}$	-1	$\frac{8}{21}, \frac{3}{7}$	1	$\frac{1}{21}, \frac{1}{3}$	1	$\frac{8}{21}, \frac{3}{7}$
1	$0, \frac{4}{21}$	1	$\frac{2}{7}, \frac{10}{21}$	1	$\frac{4}{21}, \frac{2}{7}$	-1	$\frac{1}{3}, \frac{10}{21}$
$ D \equiv 31 \pmod{84}$							
1	$0, \frac{2}{21}$	1	$\frac{1}{7}, \frac{5}{21}$	1	$\frac{2}{21}, \frac{1}{7}$	1	$\frac{5}{21}, \frac{1}{3}$
1	$0, \frac{1}{21}$	-1	$\frac{8}{21}, \frac{3}{7}$	1	$\frac{1}{21}, \frac{1}{3}$	1	$\frac{8}{21}, \frac{3}{7}$
1	$0, \frac{4}{21}$	1	$\frac{2}{7}, \frac{10}{21}$	1	$\frac{4}{21}, \frac{2}{7}$	-1	$\frac{1}{3}, \frac{10}{21}$
$ D \equiv 43 \pmod{84}$							
$\frac{1}{2}$	$\frac{2}{21}, \frac{1}{7}$	$\frac{1}{2}$	$\frac{5}{21}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{21}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{8}{21}, \frac{3}{7}$
$\frac{1}{2}$	$\frac{4}{21}, \frac{2}{7}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{10}{21}$				
$ D \equiv 55 \pmod{84}$							
1	$0, \frac{2}{21}$	1	$\frac{1}{7}, \frac{5}{21}$	1	$\frac{2}{21}, \frac{1}{7}$	1	$\frac{5}{21}, \frac{1}{3}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{1}{21}$	-1	$\frac{8}{21}, \frac{3}{7}$	1	$\frac{1}{21}, \frac{1}{3}$	1	$\frac{8}{21}, \frac{3}{7}$
1	$0, \frac{4}{21}$	1	$\frac{2}{7}, \frac{10}{21}$	1	$\frac{4}{21}, \frac{2}{7}$	-1	$\frac{1}{3}, \frac{10}{21}$
$ D \equiv 67 \pmod{84}$							
$\frac{1}{2}$	$\frac{2}{21}, \frac{1}{7}$	$\frac{1}{2}$	$\frac{5}{21}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{21}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{8}{21}, \frac{3}{7}$
$\frac{1}{2}$	$\frac{4}{21}, \frac{2}{7}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{10}{21}$				
$ D \equiv 79 \pmod{84}$							
$\frac{1}{2}$	$\frac{2}{21}, \frac{1}{7}$	$\frac{1}{2}$	$\frac{5}{21}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{21}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{8}{21}, \frac{3}{7}$
$\frac{1}{2}$	$\frac{4}{21}, \frac{2}{7}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{10}{21}$				
$ D \equiv 3 \pmod{88}$							
$\frac{-1}{3}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{3}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 7 \pmod{88}$							
1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$	1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$
1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$	1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$
$ D \equiv 15 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 19 \pmod{88}$							
1	$0, \frac{1}{22}$	-1	$\frac{3}{22}, \frac{2}{11}$	1	$0, \frac{1}{22}$	1	$\frac{3}{11}, \frac{7}{22}$
1	$0, \frac{5}{22}$	1	$\frac{4}{11}, \frac{9}{22}$	1	$0, \frac{3}{22}$	-1	$\frac{9}{22}, \frac{5}{11}$
$\frac{-1}{2}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{2}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 23 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 27 \pmod{88}$							
$\frac{-1}{3}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{3}$	$\frac{9}{22}, \frac{1}{2}$				

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 31 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 35 \pmod{88}$							
1	$0, \frac{1}{22}$	-1	$\frac{3}{22}, \frac{2}{11}$	1	$0, \frac{1}{22}$	1	$\frac{3}{11}, \frac{7}{22}$
1	$0, \frac{5}{22}$	1	$\frac{4}{11}, \frac{9}{22}$	1	$0, \frac{3}{22}$	-1	$\frac{9}{22}, \frac{5}{11}$
$-\frac{1}{2}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{2}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 39 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 43 \pmod{88}$							
1	$0, \frac{1}{22}$	-1	$\frac{3}{22}, \frac{2}{11}$	1	$0, \frac{1}{22}$	1	$\frac{3}{11}, \frac{7}{22}$
1	$0, \frac{5}{22}$	1	$\frac{4}{11}, \frac{9}{22}$	1	$0, \frac{3}{22}$	-1	$\frac{9}{22}, \frac{5}{11}$
$-\frac{1}{2}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{2}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 47 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 51 \pmod{88}$							
1	$0, \frac{1}{22}$	-1	$\frac{3}{22}, \frac{2}{11}$	1	$0, \frac{1}{22}$	1	$\frac{3}{11}, \frac{7}{22}$
1	$0, \frac{5}{22}$	1	$\frac{4}{11}, \frac{9}{22}$	$-\frac{1}{2}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{2}$	$\frac{9}{22}, \frac{1}{2}$
$ D \equiv 59 \pmod{88}$							
$-\frac{1}{3}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{3}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 63 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 67 \pmod{88}$							
$\frac{-1}{3}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{3}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 71 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 75 \pmod{88}$							
$\frac{-1}{3}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{3}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{3}$	$\frac{9}{22}, \frac{1}{2}$				
$ D \equiv 79 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 83 \pmod{88}$							
1	$0, \frac{1}{22}$	-1	$\frac{3}{22}, \frac{2}{11}$	1	$0, \frac{1}{22}$	1	$\frac{3}{11}, \frac{7}{22}$
1	$0, \frac{5}{22}$	1	$\frac{4}{11}, \frac{9}{22}$	$\frac{-1}{2}$	$\frac{1}{11}, \frac{5}{22}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{22}, \frac{3}{11}$	$\frac{1}{2}$	$\frac{7}{22}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{22}, \frac{4}{11}$	$\frac{1}{2}$	$\frac{9}{22}, \frac{1}{2}$
$ D \equiv 87 \pmod{88}$							
1	$0, \frac{3}{22}$	1	$\frac{3}{11}, \frac{4}{11}$	1	$0, \frac{2}{11}$	-1	$\frac{7}{22}, \frac{4}{11}$
1	$0, \frac{1}{11}$	1	$\frac{2}{11}, \frac{9}{22}$	1	$0, \frac{1}{22}$	1	$\frac{1}{11}, \frac{5}{11}$
1	$0, \frac{5}{22}$	-1	$\frac{3}{11}, \frac{5}{11}$				
$ D \equiv 7 \pmod{24}$							
1	$0, \frac{1}{24}$	$\frac{1}{2}$	$\frac{1}{24}, \frac{7}{24}$	1	$0, \frac{1}{24}$	1	$\frac{1}{6}, \frac{7}{24}$
1	$0, \frac{1}{24}$	1	$\frac{1}{4}, \frac{7}{24}$	-1	$\frac{1}{24}, \frac{1}{12}$	1	$\frac{5}{24}, \frac{1}{3}$
1	$\frac{1}{24}, \frac{1}{6}$	1	$\frac{7}{24}, \frac{1}{3}$	1	$\frac{1}{24}, \frac{1}{4}$	1	$\frac{7}{24}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{24}, \frac{7}{24}$	1	$\frac{7}{24}, \frac{1}{3}$	1	$0, \frac{1}{8}$	1	$\frac{1}{6}, \frac{3}{8}$
1	$\frac{1}{8}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{3}{8}$	1	$\frac{1}{8}, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{3}{8}$
$\frac{1}{2}$	$\frac{1}{8}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{3}{8}$	1	$0, \frac{1}{24}$	1	$\frac{5}{24}, \frac{5}{12}$
1	$0, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{5}{12}$	1	$\frac{1}{24}, \frac{5}{24}$	-1	$\frac{1}{3}, \frac{5}{12}$
1	$0, \frac{1}{24}$	1	$\frac{1}{12}, \frac{11}{24}$	1	$0, \frac{5}{24}$	$\frac{1}{2}$	$\frac{5}{24}, \frac{11}{24}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{5}{24}$	1	$\frac{1}{4}, \frac{11}{24}$	1	$0, \frac{1}{12}$	-1	$\frac{7}{24}, \frac{11}{24}$
1	$\frac{1}{24}, \frac{1}{12}$	-1	$\frac{1}{3}, \frac{11}{24}$	-1	$\frac{1}{6}, \frac{5}{24}$	-1	$\frac{1}{3}, \frac{11}{24}$
1	$\frac{5}{24}, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{11}{24}$	$\frac{1}{2}$	$\frac{5}{24}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{11}{24}$
1	$0, \frac{1}{24}$	-1	$\frac{7}{24}, \frac{1}{2}$	1	$\frac{1}{8}, \frac{1}{3}$	1	$\frac{3}{8}, \frac{1}{2}$
1	$0, \frac{5}{24}$	-1	$\frac{11}{24}, \frac{1}{2}$	1	$\frac{5}{24}, \frac{1}{3}$	1	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 11 \pmod{24}$							
1	$\frac{1}{24}, \frac{1}{8}$	-1	$\frac{1}{8}, \frac{7}{24}$	1	$\frac{1}{12}, \frac{5}{24}$	1	$\frac{1}{4}, \frac{7}{24}$
$\frac{1}{2}$	$0, \frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{3}{8}$	-1	$\frac{1}{8}, \frac{1}{6}$	1	$\frac{1}{6}, \frac{3}{8}$
$-\frac{1}{2}$	$\frac{1}{8}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{3}{8}$	$\frac{1}{2}$	$0, \frac{1}{8}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{3}{8}$
-1	$\frac{1}{8}, \frac{1}{6}$	1	$\frac{1}{3}, \frac{3}{8}$	$-\frac{1}{2}$	$\frac{1}{8}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{3}{8}$
-1	$\frac{1}{8}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{3}{8}$	1	$\frac{1}{12}, \frac{1}{8}$	-1	$\frac{3}{8}, \frac{5}{12}$
1	$\frac{5}{24}, \frac{3}{8}$	-1	$\frac{3}{8}, \frac{11}{24}$	1	$0, \frac{1}{24}$	1	$\frac{5}{12}, \frac{11}{24}$
-1	$\frac{1}{24}, \frac{1}{4}$	1	$\frac{5}{12}, \frac{11}{24}$	$-\frac{1}{2}$	$\frac{1}{12}, \frac{5}{24}$	$\frac{1}{2}$	$\frac{7}{24}, \frac{1}{2}$
1	$\frac{1}{8}, \frac{1}{6}$	1	$\frac{3}{8}, \frac{1}{2}$	1	$\frac{1}{8}, \frac{1}{3}$	1	$\frac{3}{8}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{24}, \frac{5}{12}$	$\frac{1}{2}$	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 19 \pmod{24}$							
$\frac{1}{2}$	$0, \frac{1}{24}$	$-\frac{1}{2}$	$\frac{1}{12}, \frac{5}{24}$	2	$0, \frac{1}{24}$	1	$\frac{1}{24}, \frac{7}{24}$
$\frac{1}{2}$	$0, \frac{1}{24}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{24}$	$-\frac{1}{3}$	$\frac{1}{24}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{24}$
$-\frac{1}{2}$	$\frac{1}{24}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{7}{24}$	-1	$\frac{1}{12}, \frac{5}{24}$	-1	$\frac{1}{4}, \frac{7}{24}$
-1	$0, \frac{1}{24}$	1	$\frac{7}{24}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{1}{12}, \frac{5}{24}$	$\frac{1}{3}$	$\frac{7}{24}, \frac{1}{3}$
1	$\frac{1}{24}, \frac{1}{4}$	1	$\frac{7}{24}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{24}, \frac{7}{24}$	$\frac{2}{3}$	$\frac{7}{24}, \frac{1}{3}$
$\frac{1}{4}$	$0, \frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{3}{8}$	$-\frac{1}{5}$	$\frac{1}{8}, \frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{3}{8}$
$-\frac{1}{4}$	$\frac{1}{8}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{4}, \frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{24}, \frac{1}{8}$	$\frac{1}{2}$	$\frac{7}{24}, \frac{3}{8}$
1	$0, \frac{1}{8}$	1	$\frac{1}{3}, \frac{3}{8}$	$-\frac{1}{2}$	$\frac{1}{8}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{3}{8}$
-1	$\frac{1}{8}, \frac{1}{4}$	1	$\frac{1}{3}, \frac{3}{8}$	1	$\frac{1}{8}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{3}{8}$
$\frac{1}{2}$	$\frac{1}{24}, \frac{5}{24}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{5}{12}$	$\frac{1}{3}$	$\frac{1}{24}, \frac{1}{12}$	$\frac{1}{3}$	$\frac{7}{24}, \frac{5}{12}$
2	$0, \frac{5}{24}$	1	$\frac{5}{24}, \frac{11}{24}$	2	$\frac{1}{6}, \frac{5}{24}$	$\frac{1}{3}$	$\frac{5}{24}, \frac{11}{24}$
1	$0, \frac{5}{24}$	1	$\frac{1}{4}, \frac{11}{24}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{5}{24}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{11}{24}$
-1	$\frac{5}{24}, \frac{1}{4}$	1	$\frac{1}{4}, \frac{11}{24}$	$\frac{1}{2}$	$0, \frac{1}{12}$	$\frac{1}{2}$	$\frac{7}{24}, \frac{11}{24}$
$-\frac{1}{3}$	$\frac{1}{12}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{7}{24}, \frac{11}{24}$	$-\frac{1}{2}$	$\frac{1}{12}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{7}{24}, \frac{11}{24}$
-1	$0, \frac{5}{24}$	-1	$\frac{1}{3}, \frac{11}{24}$	1	$\frac{5}{24}, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{11}{24}$
$\frac{1}{3}$	$\frac{5}{24}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{1}{3}, \frac{11}{24}$	$-\frac{1}{2}$	$\frac{1}{8}, \frac{5}{24}$	$-\frac{1}{2}$	$\frac{3}{8}, \frac{11}{24}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$0, \frac{1}{24}$	-1	$\frac{5}{12}, \frac{11}{24}$	$-\frac{1}{3}$	$\frac{1}{12}, \frac{5}{24}$	$-\frac{1}{3}$	$\frac{5}{12}, \frac{11}{24}$
1	$\frac{1}{24}, \frac{1}{4}$	-1	$\frac{5}{12}, \frac{11}{24}$	$\frac{1}{2}$	$0, \frac{7}{24}$	$-\frac{1}{2}$	$\frac{5}{12}, \frac{11}{24}$
$\frac{1}{3}$	$\frac{1}{24}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{24}$	$-\frac{1}{3}$	$\frac{5}{12}, \frac{11}{24}$
$\frac{1}{2}$	$\frac{1}{4}, \frac{7}{24}$	$-\frac{1}{2}$	$\frac{5}{12}, \frac{11}{24}$	$\frac{1}{3}$	$\frac{1}{24}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{5}{12}, \frac{11}{24}$
$-\frac{1}{2}$	$0, \frac{1}{24}$	$\frac{1}{2}$	$\frac{7}{24}, \frac{1}{2}$	1	$\frac{1}{24}, \frac{1}{6}$	1	$\frac{7}{24}, \frac{1}{2}$
$-\frac{1}{4}$	$\frac{1}{12}, \frac{5}{24}$	$\frac{1}{4}$	$\frac{7}{24}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{24}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{7}{24}, \frac{1}{2}$
$\frac{1}{5}$	$\frac{1}{24}, \frac{7}{24}$	$\frac{2}{5}$	$\frac{7}{24}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{8}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{3}{8}, \frac{1}{2}$
-1	$\frac{1}{24}, \frac{5}{24}$	1	$\frac{5}{12}, \frac{1}{2}$	$-\frac{1}{2}$	$0, \frac{5}{24}$	$\frac{1}{2}$	$\frac{11}{24}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{5}{24}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{11}{24}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{5}{24}, \frac{1}{3}$	$\frac{1}{4}$	$\frac{11}{24}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{24}, \frac{5}{12}$	$\frac{1}{4}$	$\frac{11}{24}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{5}{24}, \frac{11}{24}$	$\frac{2}{5}$	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 23 \pmod{24}$							
1	$0, \frac{1}{8}$	1	$\frac{1}{6}, \frac{3}{8}$	1	$0, \frac{1}{8}$	1	$\frac{1}{3}, \frac{3}{8}$
1	$0, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{5}{12}$	1	$0, \frac{1}{24}$	1	$\frac{1}{12}, \frac{11}{24}$
$ D \equiv 7 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 11 \pmod{104}$							
1	$\frac{1}{26}, \frac{3}{13}$	1	$\frac{9}{26}, \frac{5}{13}$	-1	$\frac{1}{13}, \frac{7}{26}$	1	$\frac{9}{26}, \frac{5}{13}$
-1	$\frac{1}{13}, \frac{3}{26}$	1	$\frac{9}{26}, \frac{6}{13}$				
$ D \equiv 15 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 19 \pmod{104}$							
1	$\frac{1}{26}, \frac{2}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{1}{26}, \frac{3}{13}$	1	$\frac{9}{26}, \frac{5}{13}$
-1	$\frac{1}{13}, \frac{7}{26}$	1	$\frac{9}{26}, \frac{5}{13}$	1	$\frac{7}{26}, \frac{4}{13}$	-1	$\frac{5}{13}, \frac{11}{26}$
-1	$\frac{1}{13}, \frac{3}{26}$	1	$\frac{9}{26}, \frac{6}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{11}{26}, \frac{6}{13}$
1	$\frac{3}{26}, \frac{4}{13}$	1	$\frac{11}{26}, \frac{6}{13}$				
$ D \equiv 23 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 31 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 47 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 55 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 59 \pmod{104}$							
1	$\frac{1}{26}, \frac{2}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{1}{26}, \frac{3}{13}$	1	$\frac{9}{26}, \frac{5}{13}$
-1	$\frac{1}{13}, \frac{7}{26}$	1	$\frac{9}{26}, \frac{5}{13}$	1	$\frac{7}{26}, \frac{4}{13}$	-1	$\frac{5}{13}, \frac{11}{26}$
-1	$\frac{1}{13}, \frac{3}{26}$	1	$\frac{9}{26}, \frac{6}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{11}{26}, \frac{6}{13}$
1	$\frac{3}{26}, \frac{4}{13}$	1	$\frac{11}{26}, \frac{6}{13}$				
$ D \equiv 63 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 67 \pmod{104}$							
1	$\frac{1}{26}, \frac{2}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{1}{26}, \frac{3}{13}$	1	$\frac{9}{26}, \frac{5}{13}$
-1	$\frac{1}{13}, \frac{7}{26}$	1	$\frac{9}{26}, \frac{5}{13}$	1	$\frac{7}{26}, \frac{4}{13}$	-1	$\frac{5}{13}, \frac{11}{26}$
-1	$\frac{1}{13}, \frac{3}{26}$	1	$\frac{9}{26}, \frac{6}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{11}{26}, \frac{6}{13}$
1	$\frac{3}{26}, \frac{4}{13}$	1	$\frac{11}{26}, \frac{6}{13}$				
$ D \equiv 71 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 79 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 83 \pmod{104}$							
1	$\frac{1}{26}, \frac{2}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{1}{26}, \frac{3}{13}$	1	$\frac{9}{26}, \frac{5}{13}$
-1	$\frac{1}{13}, \frac{7}{26}$	1	$\frac{9}{26}, \frac{5}{13}$	1	$\frac{7}{26}, \frac{4}{13}$	-1	$\frac{5}{13}, \frac{11}{26}$
-1	$\frac{1}{13}, \frac{3}{26}$	1	$\frac{9}{26}, \frac{6}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{11}{26}, \frac{6}{13}$
1	$\frac{3}{26}, \frac{4}{13}$	1	$\frac{11}{26}, \frac{6}{13}$				
$ D \equiv 87 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 95 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 99 \pmod{104}$							
1	$\frac{1}{26}, \frac{2}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{1}{26}, \frac{3}{13}$	1	$\frac{9}{26}, \frac{5}{13}$
-1	$\frac{1}{13}, \frac{7}{26}$	1	$\frac{9}{26}, \frac{5}{13}$	1	$\frac{7}{26}, \frac{4}{13}$	-1	$\frac{5}{13}, \frac{11}{26}$
-1	$\frac{1}{13}, \frac{3}{26}$	1	$\frac{9}{26}, \frac{6}{13}$	1	$\frac{5}{26}, \frac{3}{13}$	1	$\frac{11}{26}, \frac{6}{13}$
1	$\frac{3}{26}, \frac{4}{13}$	1	$\frac{11}{26}, \frac{6}{13}$				
$ D \equiv 103 \pmod{104}$							
1	$0, \frac{2}{13}$	1	$\frac{4}{13}, \frac{9}{26}$	1	$0, \frac{3}{26}$	1	$\frac{3}{13}, \frac{5}{13}$
1	$0, \frac{5}{26}$	-1	$\frac{4}{13}, \frac{5}{13}$	1	$0, \frac{1}{13}$	1	$\frac{2}{13}, \frac{11}{26}$
1	$0, \frac{1}{26}$	1	$\frac{1}{13}, \frac{6}{13}$	1	$0, \frac{3}{13}$	-1	$\frac{7}{26}, \frac{6}{13}$
$ D \equiv 3 \pmod{56}$							
$-\frac{1}{3}$	$\frac{1}{14}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{5}{14}$	$\frac{1}{3}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 11 \pmod{56}$							
1	$0, \frac{1}{7}$	1	$\frac{3}{14}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{14}, \frac{5}{28}$	$\frac{1}{2}$	$\frac{3}{14}, \frac{9}{28}$
$\frac{1}{2}$	$\frac{1}{14}, \frac{3}{28}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{11}{28}$	-1	$\frac{3}{28}, \frac{2}{7}$	1	$\frac{5}{14}, \frac{11}{28}$
1	$\frac{1}{14}, \frac{3}{28}$	-1	$\frac{11}{28}, \frac{3}{7}$	-1	$\frac{1}{28}, \frac{1}{7}$	1	$\frac{5}{14}, \frac{13}{28}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{1}{28}, \frac{3}{14}$	1	$\frac{3}{7}, \frac{13}{28}$	$\frac{-1}{2}$	$\frac{1}{14}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{2}{7}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{4}, \frac{5}{14}$	$\frac{1}{2}$	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 15 \pmod{56}$							
1	$0, \frac{5}{28}$	-1	$\frac{9}{28}, \frac{5}{14}$	1	$0, \frac{3}{28}$	1	$\frac{3}{14}, \frac{11}{28}$
-1	$\frac{1}{14}, \frac{3}{14}$	3	$\frac{1}{4}, \frac{3}{7}$	-1	$\frac{1}{7}, \frac{3}{14}$	2	$\frac{1}{4}, \frac{3}{7}$
2	$\frac{1}{4}, \frac{2}{7}$	1	$\frac{5}{14}, \frac{3}{7}$	1	$0, \frac{1}{28}$	1	$\frac{1}{14}, \frac{13}{28}$
$ D \equiv 19 \pmod{56}$							
$\frac{-1}{3}$	$\frac{1}{14}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{5}{14}$	$\frac{1}{3}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 23 \pmod{56}$							
1	$0, \frac{5}{28}$	-1	$\frac{9}{28}, \frac{5}{14}$	1	$0, \frac{3}{28}$	1	$\frac{3}{14}, \frac{11}{28}$
-1	$\frac{1}{14}, \frac{3}{14}$	3	$\frac{1}{4}, \frac{3}{7}$	-1	$\frac{1}{7}, \frac{3}{14}$	2	$\frac{1}{4}, \frac{3}{7}$
2	$\frac{1}{4}, \frac{2}{7}$	1	$\frac{5}{14}, \frac{3}{7}$	1	$0, \frac{1}{28}$	1	$\frac{1}{14}, \frac{13}{28}$
$ D \equiv 27 \pmod{56}$							
$\frac{-1}{3}$	$\frac{1}{14}, \frac{1}{4}$	$\frac{1}{3}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}, \frac{5}{14}$	$\frac{1}{3}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 31 \pmod{56}$							
1	$0, \frac{5}{28}$	-1	$\frac{9}{28}, \frac{5}{14}$	1	$0, \frac{3}{28}$	1	$\frac{3}{14}, \frac{11}{28}$
1	$0, \frac{1}{28}$	1	$\frac{1}{14}, \frac{13}{28}$				
$ D \equiv 39 \pmod{56}$							
1	$0, \frac{5}{28}$	-1	$\frac{9}{28}, \frac{5}{14}$	1	$0, \frac{3}{28}$	1	$\frac{3}{14}, \frac{11}{28}$
-1	$\frac{1}{14}, \frac{3}{14}$	3	$\frac{1}{4}, \frac{3}{7}$	-1	$\frac{1}{7}, \frac{3}{14}$	2	$\frac{1}{4}, \frac{3}{7}$
2	$\frac{1}{4}, \frac{2}{7}$	1	$\frac{5}{14}, \frac{3}{7}$	1	$0, \frac{1}{28}$	1	$\frac{1}{14}, \frac{13}{28}$
$ D \equiv 43 \pmod{56}$							
-1	$0, \frac{1}{14}$	1	$\frac{1}{4}, \frac{2}{7}$	$\frac{1}{2}$	$\frac{1}{14}, \frac{5}{28}$	$\frac{1}{2}$	$\frac{3}{14}, \frac{9}{28}$
$\frac{1}{2}$	$\frac{1}{14}, \frac{3}{28}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{11}{28}$	-1	$\frac{3}{28}, \frac{2}{7}$	1	$\frac{5}{14}, \frac{11}{28}$
1	$\frac{1}{14}, \frac{3}{28}$	-1	$\frac{11}{28}, \frac{3}{7}$	-1	$\frac{1}{28}, \frac{1}{7}$	1	$\frac{5}{14}, \frac{13}{28}$
$\frac{-1}{2}$	$\frac{1}{28}, \frac{3}{14}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{13}{28}$	-1	$\frac{1}{28}, \frac{3}{14}$	1	$\frac{3}{7}, \frac{13}{28}$
$\frac{-1}{2}$	$\frac{1}{14}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{5}{14}$	$\frac{1}{2}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 47 \pmod{56}$							
1	$0, \frac{5}{28}$	-1	$\frac{9}{28}, \frac{5}{14}$	1	$0, \frac{3}{28}$	1	$\frac{3}{14}, \frac{11}{28}$
1	$0, \frac{1}{28}$	1	$\frac{1}{14}, \frac{13}{28}$				

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 51 \pmod{56}$				$(\text{mod } 56)$			
1	0, $\frac{1}{7}$	1	$\frac{3}{14}, \frac{1}{4}$	-1	0, $\frac{1}{14}$	1	$\frac{1}{4}, \frac{2}{7}$
$\frac{1}{2}$	$\frac{1}{14}, \frac{5}{28}$	$\frac{1}{2}$	$\frac{3}{14}, \frac{9}{28}$	-1	$\frac{5}{28}, \frac{3}{14}$	1	$\frac{2}{7}, \frac{9}{28}$
$\frac{1}{2}$	$\frac{1}{14}, \frac{3}{28}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{11}{28}$	-1	$\frac{3}{28}, \frac{2}{7}$	1	$\frac{5}{14}, \frac{11}{28}$
1	$\frac{1}{14}, \frac{3}{28}$	-1	$\frac{11}{28}, \frac{3}{7}$	-1	$\frac{1}{28}, \frac{1}{7}$	1	$\frac{5}{14}, \frac{13}{28}$
$-\frac{1}{2}$	$\frac{1}{28}, \frac{3}{14}$	$\frac{1}{2}$	$\frac{5}{14}, \frac{13}{28}$	-1	$\frac{1}{28}, \frac{3}{14}$	1	$\frac{3}{7}, \frac{13}{28}$
$-\frac{1}{2}$	$\frac{1}{14}, \frac{1}{4}$	$\frac{1}{2}$	$\frac{2}{7}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}, \frac{5}{14}$	$\frac{1}{2}$	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 55 \pmod{56}$				$(\text{mod } 56)$			
1	0, $\frac{5}{28}$	-1	$\frac{9}{28}, \frac{5}{14}$	1	0, $\frac{3}{28}$	1	$\frac{3}{14}, \frac{11}{28}$
1	0, $\frac{1}{28}$	1	$\frac{1}{14}, \frac{13}{28}$				
$ D \equiv 7 \pmod{120}$				$(\text{mod } 120)$			
-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{5}$
-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{1}{15}, \frac{7}{30}$	1	0, $\frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{4}{15}$	1	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$
3	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{4}{15}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{3}$
$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{1}{3}$
-1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{1}{10}, \frac{1}{6}$	1	$\frac{3}{10}, \frac{1}{3}$
1	0, $\frac{1}{5}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$	1	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$	1	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{2}$	$\frac{3}{10}, \frac{1}{3}$
1	0, $\frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	1	0, $\frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$
2	0, $\frac{1}{15}$	1	$\frac{7}{30}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{11}{30}$
2	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{7}{30}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{4}{15}, \frac{11}{30}$
1	0, $\frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{6}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{2}$	0, $\frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	-3	$\frac{1}{3}, \frac{2}{5}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{30}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{2}{5}$
1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{2}{15}, \frac{13}{30}$
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$	1	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$
2	$0, \frac{2}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$	2	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{1}{5}, \frac{7}{30}$	-1	$\frac{2}{5}, \frac{13}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{7}{30}, \frac{7}{15}$
1	$0, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$	-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{3}{10}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{7}{15}$
1	$0, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{1}{15}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{7}{30}, \frac{11}{30}$	-2	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{2}{15}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{7}{15}$
-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{1}{2}$	1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{2}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{1}{2}$	1	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{2}$	1	$0, \frac{1}{30}$	-1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{1}{2}$	1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{7}{15}, \frac{1}{2}$
-1	$\frac{11}{30}, \frac{13}{30}$	2	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{2}{15}, \frac{7}{15}$	2	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 11 \pmod{120}$							
1	$0, \frac{1}{15}$	-1	$\frac{2}{15}, \frac{7}{30}$	1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{10}, \frac{11}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{3}{10}, \frac{11}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{3}, \frac{11}{30}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$0, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
1	$0, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$	1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
1	$0, \frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
-1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$
-1	$0, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 19 \pmod{120}$							
1	$0, \frac{1}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{2}{15}, \frac{7}{30}$
1	$0, \frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$	$\frac{1}{3}$	$0, \frac{1}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{4}{15}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$
$-\frac{1}{4}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{4}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{4}{15}, \frac{1}{3}$
-1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{4}{15}, \frac{1}{3}$
$-\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{2}{15}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{1}{3}$
1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{10}, \frac{11}{30}$
$\frac{1}{3}$	$0, \frac{1}{30}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{11}{30}$
1	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{3}{10}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{11}{30}$
-1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{5}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$
1	$0, \frac{2}{15}$	1	$\frac{4}{15}, \frac{13}{30}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$
1	$0, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{1}{10}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{13}{30}$	1	0, $\frac{1}{15}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{-1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{11}{30}, \frac{13}{30}$	1	0, $\frac{4}{15}$	$\frac{-1}{2}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{-1}{4}$	$\frac{11}{30}, \frac{13}{30}$	1	$\frac{1}{15}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{11}{30}, \frac{13}{30}$
1	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{1}{3}$	0, $\frac{2}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{15}$	$\frac{-1}{4}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{7}{15}$
1	0, $\frac{1}{30}$	1	$\frac{4}{15}, \frac{7}{15}$	$\frac{-1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{7}{15}$
1	0, $\frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$	$\frac{-1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$	-1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{1}{3}, \frac{7}{15}$
-1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	0, $\frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
$\frac{-1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$	1	0, $\frac{4}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{-1}{2}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	1	0, $\frac{1}{15}$	-1	$\frac{13}{30}, \frac{7}{15}$
$\frac{-1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{-1}{2}$	$\frac{13}{30}, \frac{7}{15}$	1	0, $\frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{13}{30}, \frac{7}{15}$	-1	0, $\frac{1}{15}$	1	$\frac{4}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
$\frac{-1}{4}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{2}{15}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	-1	0, $\frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{15}, \frac{1}{15}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{10}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{10}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
-1	0, $\frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
-1	0, $\frac{2}{15}$	1	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{-1}{2}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{4}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{4}$	$\frac{2}{15}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 23 \pmod{120}$							
1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{5}$	1	0, $\frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$
1	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$	3	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{3}{10}$
3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{3}$
1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{1}{3}$	1	0, $\frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$
$\frac{2}{3}$	0, $\frac{1}{5}$	$-\frac{1}{3}$	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{5}, \frac{3}{10}$	-3	$\frac{3}{10}, \frac{1}{3}$
1	0, $\frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{6}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{6}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{2}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{2}{5}$
1	0, $\frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{2}{15}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{13}{30}$
1	0, $\frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$	1	0, $\frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$
1	0, $\frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{2}$	-1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 31 \pmod{120}$							
1	0, $\frac{1}{10}$	-2	$\frac{1}{6}, \frac{1}{5}$	1	0, $\frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
1	0, $\frac{1}{15}$	1	$\frac{1}{6}, \frac{4}{15}$	1	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$
-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{3}$	0, $\frac{1}{10}$	$\frac{2}{3}$	$\frac{1}{5}, \frac{1}{3}$
$-\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{1}{3}$
-1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{1}{10}, \frac{1}{6}$	1	$\frac{3}{10}, \frac{1}{3}$
2	0, $\frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{3}$
-2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$
$\frac{2}{3}$	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$	1	0, $\frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$	1	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{11}{30}$
1	$0, \frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{11}{30}$
1	$0, \frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$	-1	$0, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{3}$	$0, \frac{3}{10}$	$\frac{-2}{3}$	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{4}$	$\frac{1}{10}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{1}{3}$	$\frac{-2}{3}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$0, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{-1}{2}$	$\frac{1}{3}, \frac{13}{30}$	1	$0, \frac{2}{15}$	$\frac{-1}{2}$	$\frac{11}{30}, \frac{13}{30}$
1	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$
1	$0, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{15}$	1	$0, \frac{1}{15}$	1	$\frac{7}{30}, \frac{7}{15}$
1	$0, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$0, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{7}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{1}{2}$
1	$0, \frac{1}{30}$	-1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{1}{2}$	1	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{1}{2}$	1	$0, \frac{2}{15}$	-1	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{2}{15}, \frac{1}{3}$	1	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 43 \pmod{120}$							
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{-1}{2}$	$\frac{1}{15}, \frac{2}{15}$	-1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{2}{15}, \frac{7}{30}$	$\frac{-1}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{3}$	$\frac{2}{15}, \frac{7}{30}$
1	$0, \frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$	-1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{4}{15}$
$\frac{1}{2}$	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{-1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$
$\frac{-1}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{4}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$
-1	$\frac{1}{15}, \frac{1}{10}$	-1	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{3}{10}$
$\frac{-1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{-1}{2}$	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{3}{10}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{2}{15}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{1}{15}, \frac{4}{15}$	-2	$\frac{4}{15}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{4}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{1}{3}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$
$\frac{1}{4}$	$0, \frac{1}{30}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{11}{30}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{11}{30}$
$\frac{1}{5}$	$0, \frac{1}{30}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{5}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{11}{30}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{6}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}, \frac{11}{30}$
2	$0, \frac{2}{15}$	1	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{11}{30}$
$-\frac{2}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{7}{30}, \frac{11}{30}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{11}{30}$	$\frac{1}{4}$	$0, \frac{1}{30}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{11}{30}$
$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
$-\frac{1}{5}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{5}$	$\frac{3}{10}, \frac{11}{30}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{11}{30}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{3}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$
$\frac{2}{5}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{30}, \frac{1}{5}$	-1	$\frac{11}{30}, \frac{2}{5}$
$\frac{1}{2}$	$0, \frac{7}{30}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$
$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{6}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$-\frac{1}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{13}{30}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{1}{4}$	$0, \frac{7}{30}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{13}{30}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{13}{30}$
$\frac{1}{5}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{5}$	$\frac{3}{10}, \frac{13}{30}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$
$-\frac{1}{4}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{13}{30}$	$\frac{1}{2}$	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{10}, \frac{3}{30}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{1}{3}, \frac{13}{30}$
$-\frac{1}{2}$	$\frac{7}{30}, \frac{10}{10}$	$\frac{1}{2}$	$\frac{3}{30}, \frac{13}{30}$	2	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{11}{30}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
$-\frac{2}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
2	$0, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{13}{30}$
-2	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	1	$\frac{1}{5}, \frac{7}{30}$	1	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{2}{15}, \frac{7}{15}$	$\frac{1}{2}$	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{15}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{15}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{7}{15}$	1	$0, \frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{3}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$
-1	$\frac{2}{15}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{7}{15}$	-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{7}{15}$	-1	$0, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{10}$	-1	$\frac{11}{30}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{2}$	$0, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{1}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{2}$	$0, \frac{1}{15}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{1}{3}$	$\frac{13}{30}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{2}{15}, \frac{7}{30}$	$-\frac{1}{3}$	$\frac{13}{30}, \frac{7}{15}$	-1	$0, \frac{4}{15}$	-1	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$	-1	$\frac{1}{10}, \frac{4}{15}$	-1	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$	1	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{13}{30}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{4}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
$-\frac{1}{4}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{4}$	$\frac{4}{15}, \frac{1}{2}$	1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{1}{2}$
$-\frac{1}{5}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{2}{5}$	$\frac{4}{15}, \frac{1}{2}$	-1	$\frac{2}{15}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{1}{2}$
$\frac{1}{5}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{2}{5}$	$\frac{4}{15}, \frac{1}{2}$	1	$0, \frac{1}{30}$	-1	$\frac{11}{30}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{11}{30}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{2}{15}, \frac{4}{15}$	1	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{13}{30}, \frac{1}{2}$
$-\frac{1}{2}$	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{7}{15}, \frac{1}{2}$	-1	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{4}{15}$	1	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{4}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{4}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{4}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{5}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{5}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{1}{30}, \frac{13}{30}$	$\frac{2}{5}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{4}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{2}{15}, \frac{7}{15}$	$\frac{2}{5}$	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 47 \pmod{120}$							
1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{5}$	1	0, $\frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$
1	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$	3	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{3}{10}$
3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{3}$
1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{5}, \frac{1}{3}$	1	0, $\frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$
$\frac{2}{3}$	0, $\frac{1}{5}$	$-\frac{1}{3}$	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{5}, \frac{3}{10}$	-3	$\frac{3}{10}, \frac{1}{3}$
1	0, $\frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{6}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
$\frac{1}{2}$	0, $\frac{1}{10}$	1	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{6}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{2}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{2}{5}$
1	0, $\frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{2}{15}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{13}{30}$
1	0, $\frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$	1	0, $\frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$
1	0, $\frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{2}$	-1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 59 \pmod{120}$							
1	0, $\frac{1}{15}$	-1	$\frac{2}{15}, \frac{7}{30}$	1	0, $\frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$
1	0, $\frac{1}{30}$	1	$\frac{1}{10}, \frac{11}{30}$	1	0, $\frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$
1	0, $\frac{1}{30}$	1	$\frac{3}{10}, \frac{11}{30}$	1	0, $\frac{1}{30}$	1	$\frac{1}{3}, \frac{11}{30}$
1	0, $\frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	0, $\frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
1	0, $\frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$	1	0, $\frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
1	0, $\frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
-1	0, $\frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$
-1	$0, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 67 \pmod{120}$							
$\frac{1}{2}$	$0, \frac{1}{30}$	$-\frac{1}{2}$	$\frac{1}{15}, \frac{2}{15}$	-1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{2}{15}, \frac{7}{30}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{3}$	$\frac{2}{15}, \frac{7}{30}$
1	$0, \frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$	-1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{4}{15}$
$\frac{1}{2}$	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$
$-\frac{1}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{4}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$
-1	$\frac{1}{15}, \frac{1}{10}$	-1	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{3}{10}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{3}{10}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{1}{15}, \frac{4}{15}$	-2	$\frac{4}{15}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{4}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{1}{3}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$
$\frac{1}{4}$	$0, \frac{1}{30}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{11}{30}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{11}{30}$
$\frac{1}{5}$	$0, \frac{1}{30}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{5}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{6}, \frac{11}{30}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{6}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}, \frac{11}{30}$
2	$0, \frac{2}{15}$	1	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{11}{30}$
$-\frac{2}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{7}{30}, \frac{11}{30}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{11}{30}$	$\frac{1}{4}$	$0, \frac{1}{30}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{11}{30}$
$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
$-\frac{1}{5}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{5}$	$\frac{3}{10}, \frac{11}{30}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{11}{30}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{3}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$
$\frac{2}{5}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}, \frac{2}{5}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{30}, \frac{1}{5}$	-1	$\frac{11}{30}, \frac{2}{5}$
$\frac{1}{2}$	$0, \frac{7}{30}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{6}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$-\frac{1}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{13}{30}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{1}{4}$	$0, \frac{7}{30}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{13}{30}$	$\frac{1}{4}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{13}{30}$
$\frac{1}{5}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{5}$	$\frac{3}{10}, \frac{13}{30}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$
$-\frac{1}{4}$	$\frac{7}{30}, \frac{1}{10}$	$\frac{1}{4}$	$\frac{3}{10}, \frac{13}{30}$	$\frac{1}{2}$	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{1}{3}, \frac{13}{30}$
$-\frac{1}{2}$	$\frac{7}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
$-\frac{2}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{7}{30}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
2	$0, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
1	$\frac{1}{5}, \frac{7}{30}$	1	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{2}{15}, \frac{7}{15}$
$\frac{1}{2}$	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{15}$	$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{7}{15}$
1	$0, \frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$	-1	$\frac{2}{15}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	$\frac{2}{15}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{7}{15}$
-1	$0, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{10}$	-1	$\frac{11}{30}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{2}$	$0, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{1}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{1}{3}$	$\frac{13}{30}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{2}{15}, \frac{7}{30}$	$-\frac{1}{3}$	$\frac{13}{30}, \frac{7}{15}$
-1	$0, \frac{4}{15}$	-1	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{4}{15}$	-1	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{15}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{3}{10}$	-1	$\frac{13}{30}, \frac{7}{15}$	$\frac{1}{3}$	$\frac{4}{15}, \frac{1}{3}$	$-\frac{1}{3}$	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$	$-\frac{1}{2}$	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{13}{30}, \frac{7}{15}$	$\frac{1}{2}$	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{4}$	$\frac{4}{15}, \frac{1}{2}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{1}{2}$	$-\frac{1}{5}$	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{1}{2}$
-1	$\frac{2}{15}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{2}{5}$	$\frac{4}{15}, \frac{1}{2}$
1	0, $\frac{1}{30}$	-1	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{11}{30}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{11}{30}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{5}, \frac{1}{2}$	1	0, $\frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{2}{15}, \frac{4}{15}$	1	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{13}{30}, \frac{1}{2}$
$-\frac{1}{2}$	0, $\frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{7}{15}, \frac{1}{2}$	-1	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{4}{15}$	1	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{4}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{4}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{5}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{5}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{1}{30}, \frac{13}{30}$	$\frac{2}{5}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{4}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{5}$	$\frac{2}{15}, \frac{7}{15}$	$\frac{2}{5}$	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 71 \pmod{120}$							
1	0, $\frac{1}{10}$	-2	$\frac{1}{6}, \frac{1}{5}$	1	0, $\frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$
1	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$	1	0, $\frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{3}$
1	0, $\frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$	1	0, $\frac{1}{5}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$
1	0, $\frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	1	0, $\frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$
1	0, $\frac{1}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	1	0, $\frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	0, $\frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$	1	0, $\frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$
1	0, $\frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$	1	0, $\frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$
$ D \equiv 79 \pmod{120}$							
1	0, $\frac{1}{10}$	-2	$\frac{1}{6}, \frac{1}{5}$	1	0, $\frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
1	0, $\frac{1}{15}$	1	$\frac{1}{6}, \frac{4}{15}$	1	0, $\frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$
-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{3}$	0, $\frac{1}{10}$	$\frac{2}{3}$	$\frac{1}{5}, \frac{1}{3}$
$-\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{1}{3}$
-1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{1}{10}, \frac{1}{6}$	1	$\frac{3}{10}, \frac{1}{3}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$0, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{3}$
-2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$
$\frac{2}{3}$	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$	1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$	1	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{11}{30}$
1	$0, \frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$
1	$0, \frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$	-1	$0, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{3}$	$0, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{4}$	$\frac{1}{10}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{3}$	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{3}$	$\frac{1}{10}, \frac{1}{3}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$0, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	1	$0, \frac{2}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
1	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$
1	$0, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{15}$	1	$0, \frac{1}{15}$	1	$\frac{7}{30}, \frac{7}{15}$
1	$0, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$0, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{7}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{1}{2}$
1	$0, \frac{1}{30}$	-1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{1}{2}$	1	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{1}{2}$	1	$0, \frac{2}{15}$	-1	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{2}{15}, \frac{1}{3}$	1	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 83 \pmod{120}$							
1	$0, \frac{1}{15}$	-1	$\frac{2}{15}, \frac{7}{30}$	-1	$\frac{1}{15}, \frac{1}{10}$	-1	$\frac{2}{15}, \frac{7}{30}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$	1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{6}, \frac{11}{30}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
-1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{3}{10}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{3}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{3}, \frac{11}{30}$
-1	$\frac{1}{30}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{2}{5}$	1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
$-\frac{1}{2}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$	1	$0, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{7}{30}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{1}{5}$	-1	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{1}{5}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{13}{30}$
-1	$\frac{1}{5}, \frac{7}{30}$	-1	$\frac{2}{5}, \frac{13}{30}$	1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{15}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{7}{30}, \frac{11}{30}$	-2	$\frac{2}{5}, \frac{7}{15}$	1	$0, \frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	-1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{2}{5}, \frac{1}{2}$	-1	$0, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{3}{10}$	1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 91 \pmod{120}$							
1	$0, \frac{1}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{2}{15}, \frac{7}{30}$
1	$0, \frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$	$\frac{1}{3}$	$0, \frac{1}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{4}{15}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$
$-\frac{1}{4}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{4}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{4}{15}, \frac{1}{3}$
-1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{4}{15}, \frac{1}{3}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$-\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{2}{15}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{1}{3}$
1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{10}, \frac{11}{30}$
$\frac{1}{3}$	$0, \frac{1}{30}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{11}{30}$
1	$0, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{3}{10}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{11}{30}$
-1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{5}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$
1	$0, \frac{2}{15}$	1	$\frac{4}{15}, \frac{13}{30}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$
1	$0, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$
-1	$\frac{1}{10}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	1	$0, \frac{1}{15}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{11}{30}, \frac{13}{30}$	1	$0, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{4}$	$\frac{11}{30}, \frac{13}{30}$	1	$\frac{1}{15}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
1	$\frac{4}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{1}{3}$	$0, \frac{2}{15}$	$\frac{1}{3}$	$\frac{1}{6}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{7}{15}$	$-\frac{1}{4}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{6}, \frac{7}{15}$
1	$0, \frac{1}{30}$	1	$\frac{4}{15}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{7}{15}$
1	$0, \frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$	-1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{1}{3}, \frac{7}{15}$
-1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{7}{15}$	1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$	1	$0, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	1	$0, \frac{1}{15}$	-1	$\frac{13}{30}, \frac{7}{15}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$	1	$0, \frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{4}{15}, \frac{1}{3}$	-1	$\frac{13}{30}, \frac{7}{15}$	-1	$0, \frac{1}{15}$	1	$\frac{4}{15}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
$-\frac{1}{4}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{2}{15}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{15}, \frac{1}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{15}, \frac{1}{15}$	$\frac{1}{2}$	$\frac{11}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{10}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{2}{5}, \frac{1}{2}$
$-\frac{1}{4}$	$0, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{15}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{10}{10}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{3}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$-\frac{1}{4}$	$0, \frac{2}{15}$	1	$\frac{7}{15}, \frac{1}{2}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$-\frac{1}{2}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{3}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{10}{10}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{2}{15}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$				
$\frac{1}{4}$	$\frac{2}{15}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 103 \pmod{120}$							
$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{5}$
$-\frac{1}{4}$	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{1}{15}, \frac{7}{30}$	1	$0, \frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{4}{15}$	1	$0, \frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$
3	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{4}{15}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{3}$
$\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{5}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{1}{3}$
$-\frac{1}{4}$	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{1}{10}, \frac{1}{6}$	1	$\frac{3}{10}, \frac{1}{3}$
1	$0, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$	1	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$	1	$\frac{1}{5}, \frac{3}{10}$	$\frac{3}{2}$	$\frac{3}{10}, \frac{1}{3}$
1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$
2	$0, \frac{1}{15}$	1	$\frac{7}{30}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{7}{30}, \frac{11}{30}$
2	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{7}{30}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{4}{15}, \frac{11}{30}$
1	$0, \frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{6}, \frac{2}{5}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{6}$	2	$\frac{3}{10}, \frac{2}{5}$	1	$\frac{1}{6}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{2}$	$0, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	-3	$\frac{1}{3}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{30}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{2}{5}$
1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{2}{15}, \frac{13}{30}$
1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$	1	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$
2	$0, \frac{2}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$	2	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{3}$	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{1}{5}, \frac{7}{30}$	-1	$\frac{2}{5}, \frac{13}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{7}{30}, \frac{7}{15}$
1	$0, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$	-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{3}{10}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{7}{15}$
$\frac{1}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{1}{3}, \frac{7}{15}$
1	$0, \frac{1}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{1}{15}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{3}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{7}{30}, \frac{11}{30}$	-2	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{2}{15}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{7}{15}$
-1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{2}{15}, \frac{1}{2}$	1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{2}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{1}{2}$	1	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{2}$	1	$0, \frac{1}{30}$	-1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{13}{30}, \frac{1}{2}$	1	$\frac{2}{15}, \frac{1}{6}$	1	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{1}{15}, \frac{7}{30}$	1	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{2}{15}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{7}{15}, \frac{1}{2}$

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{11}{30}, \frac{13}{30}$	2	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{2}{15}, \frac{7}{15}$	2	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 107 \pmod{120}$							
1	$0, \frac{1}{15}$	-1	$\frac{2}{15}, \frac{7}{30}$	-1	$\frac{1}{15}, \frac{1}{10}$	-1	$\frac{2}{15}, \frac{7}{30}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$	1	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{11}{30}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{11}{30}$	$\frac{-1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{6}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{6}, \frac{11}{30}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$	$\frac{-1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
-1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{3}{10}, \frac{11}{30}$	$\frac{-1}{2}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$
1	$0, \frac{1}{30}$	1	$\frac{1}{3}, \frac{11}{30}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{3}, \frac{11}{30}$
-1	$\frac{1}{30}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{2}{5}$
$\frac{1}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{5}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{2}{5}$	$\frac{-1}{2}$	$\frac{1}{5}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{2}{5}$	1	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$0, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
$\frac{-1}{2}$	$\frac{7}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{13}{30}$	1	$0, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{7}{30}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{1}{5}$	-1	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{1}{5}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{13}{30}$
-1	$\frac{1}{5}, \frac{7}{30}$	-1	$\frac{2}{5}, \frac{13}{30}$	1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{15}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{7}{30}, \frac{11}{30}$	-2	$\frac{2}{5}, \frac{7}{15}$	1	$0, \frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{13}{30}, \frac{7}{15}$	-1	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{13}{30}, \frac{7}{15}$
$\frac{-1}{2}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{1}{2}$	$\frac{4}{15}, \frac{1}{2}$	-1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{1}{30}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{2}{5}, \frac{1}{2}$	-1	$0, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	$\frac{-1}{2}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{7}{30}, \frac{3}{10}$	1	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$
$\frac{1}{4}$	$\frac{7}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{13}{30}, \frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{15}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$
$\frac{1}{2}$	$\frac{4}{15}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{7}{15}, \frac{1}{2}$				

Table 5.1: $e = 1$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 119$				$(\text{mod } 120)$			
1	$0, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{1}{5}$	1	$0, \frac{1}{15}$	1	$\frac{1}{10}, \frac{4}{15}$
1	$0, \frac{1}{10}$	1	$\frac{1}{6}, \frac{3}{10}$	1	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{3}$
1	$0, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$	1	$0, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{1}{3}$
1	$0, \frac{2}{15}$	1	$\frac{4}{15}, \frac{11}{30}$	1	$0, \frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$
1	$0, \frac{1}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	1	$0, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{13}{30}$	1	$0, \frac{1}{30}$	1	$\frac{1}{15}, \frac{7}{15}$
1	$0, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{7}{15}$	1	$0, \frac{2}{15}$	1	$\frac{3}{10}, \frac{7}{15}$

For the case $e = 3$ there were 1109 formulae, given below.

Table 5.2: Two Term Dirichlet Type Formulae, $e = 3$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1$				$(\text{mod } 12)$			
2	$0, \frac{1}{9}$	2	$\frac{2}{9}, \frac{4}{9}$				
$ D \equiv 5$				$(\text{mod } 12)$			
-2	$0, \frac{1}{9}$	-2	$\frac{2}{9}, \frac{4}{9}$	1	$\frac{1}{9}, \frac{2}{9}$	-1	$\frac{1}{3}, \frac{4}{9}$
$ D \equiv 1$				$(\text{mod } 24)$			
$\frac{2}{3}$	$0, \frac{1}{12}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{4}$	1	$0, \frac{1}{12}$	1	$\frac{1}{4}, \frac{1}{3}$
$\frac{1}{2}$	$0, \frac{1}{12}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{5}{12}$	$\frac{2}{3}$	$0, \frac{1}{12}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{5}{12}$
1	$0, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{5}{12}$	2	$0, \frac{1}{12}$	2	$\frac{1}{4}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{1}{2}$	1	$0, \frac{1}{12}$	1	$\frac{5}{12}, \frac{1}{2}$
2	$0, \frac{1}{4}$	2	$\frac{5}{12}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{1}{3}$	2	$\frac{5}{12}, \frac{1}{2}$
$ D \equiv 13$				$(\text{mod } 24)$			
2	$0, \frac{1}{12}$	2	$\frac{1}{4}, \frac{1}{3}$	-2	$\frac{1}{12}, \frac{1}{6}$	2	$\frac{1}{4}, \frac{1}{3}$
2	$0, \frac{1}{12}$	-2	$\frac{1}{3}, \frac{5}{12}$	-2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{5}{12}$
2	$0, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{5}{12}$	2	$\frac{1}{6}, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{5}{12}$
2	$\frac{1}{12}, \frac{1}{3}$	-2	$\frac{5}{12}, \frac{1}{2}$	2	$\frac{1}{4}, \frac{1}{3}$	-2	$\frac{5}{12}, \frac{1}{2}$
$ D \equiv 1$				$(\text{mod } 60)$			
2	$0, \frac{1}{15}$	2	$\frac{2}{15}, \frac{2}{5}$	2	$0, \frac{1}{15}$	2	$\frac{1}{5}, \frac{7}{15}$
2	$0, \frac{4}{15}$	2	$\frac{2}{5}, \frac{7}{15}$				

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 13 \pmod{60}$							
-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{2}{5}$
2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 17 \pmod{60}$							
2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 29 \pmod{60}$							
2	0, $\frac{1}{15}$	2	$\frac{2}{15}, \frac{1}{5}$	-2	0, $\frac{2}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$
1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{2}{5}$				
$ D \equiv 37 \pmod{60}$							
-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{2}{5}$
2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 41 \pmod{60}$							
2	0, $\frac{1}{15}$	2	$\frac{2}{15}, \frac{1}{5}$	-2	0, $\frac{2}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$
1	$\frac{2}{15}, \frac{4}{15}$	-1	$\frac{1}{3}, \frac{2}{5}$				
$ D \equiv 49 \pmod{60}$							
2	0, $\frac{1}{15}$	2	$\frac{2}{15}, \frac{2}{5}$	2	0, $\frac{1}{15}$	2	$\frac{1}{5}, \frac{7}{15}$
2	0, $\frac{4}{15}$	2	$\frac{2}{5}, \frac{7}{15}$				
$ D \equiv 53 \pmod{60}$							
2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 1 \pmod{24}$							
$\frac{2}{3}$	0, $\frac{1}{18}$	$\frac{-2}{3}$	$\frac{1}{6}, \frac{2}{9}$	$\frac{2}{3}$	0, $\frac{1}{9}$	$\frac{-2}{3}$	$\frac{1}{6}, \frac{5}{18}$
1	0, $\frac{1}{18}$	1	$\frac{2}{9}, \frac{1}{3}$	1	0, $\frac{1}{9}$	1	$\frac{5}{18}, \frac{1}{3}$
2	0, $\frac{1}{18}$	2	$\frac{1}{9}, \frac{7}{18}$	2	$\frac{1}{18}, \frac{1}{9}$	-2	$\frac{1}{6}, \frac{7}{18}$
1	0, $\frac{1}{18}$	1	$\frac{5}{18}, \frac{7}{18}$	2	0, $\frac{2}{9}$	2	$\frac{5}{18}, \frac{7}{18}$
-2	$\frac{1}{6}, \frac{2}{9}$	-2	$\frac{5}{18}, \frac{7}{18}$	-2	$\frac{1}{9}, \frac{2}{9}$	-2	$\frac{1}{3}, \frac{7}{18}$
-2	$\frac{1}{18}, \frac{5}{18}$	2	$\frac{1}{3}, \frac{7}{18}$	-1	$\frac{1}{18}, \frac{1}{9}$	-1	$\frac{1}{6}, \frac{4}{9}$
2	$\frac{1}{9}, \frac{1}{6}$	-2	$\frac{2}{9}, \frac{4}{9}$	-2	$\frac{1}{18}, \frac{1}{9}$	-2	$\frac{1}{3}, \frac{4}{9}$
-1	$\frac{1}{18}, \frac{5}{18}$	-1	$\frac{1}{3}, \frac{4}{9}$	-2	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{1}{3}, \frac{4}{9}$
-4	$\frac{1}{18}, \frac{1}{9}$	-2	$\frac{7}{18}, \frac{4}{9}$	-4	$\frac{1}{9}, \frac{2}{9}$	2	$\frac{7}{18}, \frac{4}{9}$
$\frac{-4}{3}$	$\frac{1}{18}, \frac{5}{18}$	$\frac{-2}{3}$	$\frac{7}{18}, \frac{4}{9}$	-4	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{7}{18}, \frac{4}{9}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{7}{18}$	2	$\frac{7}{18}, \frac{4}{9}$	$-\frac{4}{3}$	$\frac{1}{6}, \frac{7}{18}$	$-\frac{2}{3}$	$\frac{7}{18}, \frac{4}{9}$
-4	$\frac{1}{3}, \frac{7}{18}$	-2	$\frac{7}{18}, \frac{4}{9}$	2	$0, \frac{1}{18}$	2	$\frac{2}{9}, \frac{1}{2}$
2	$\frac{1}{18}, \frac{1}{6}$	-2	$\frac{2}{9}, \frac{1}{2}$	2	$0, \frac{1}{9}$	2	$\frac{5}{18}, \frac{1}{2}$
2	$\frac{1}{9}, \frac{1}{6}$	-2	$\frac{5}{18}, \frac{1}{2}$	-2	$\frac{1}{18}, \frac{1}{9}$	-2	$\frac{7}{18}, \frac{1}{2}$
-1	$\frac{1}{18}, \frac{5}{18}$	-1	$\frac{7}{18}, \frac{1}{2}$	-2	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{7}{18}, \frac{1}{2}$
-2	$\frac{1}{9}, \frac{2}{9}$	-2	$\frac{4}{9}, \frac{1}{2}$	-2	$\frac{1}{18}, \frac{5}{18}$	2	$\frac{4}{9}, \frac{1}{2}$
2	$0, \frac{7}{18}$	-2	$\frac{4}{9}, \frac{1}{2}$	-2	$\frac{1}{6}, \frac{7}{18}$	2	$\frac{4}{9}, \frac{1}{2}$
-2	$\frac{7}{18}, \frac{4}{9}$	-4	$\frac{4}{9}, \frac{1}{2}$				
$ D \equiv 5 \pmod{24}$							
2	$\frac{1}{9}, \frac{2}{9}$	-2	$\frac{2}{9}, \frac{5}{18}$	2	$\frac{1}{18}, \frac{2}{9}$	-4	$\frac{2}{9}, \frac{7}{18}$
2	$\frac{1}{18}, \frac{5}{18}$	-2	$\frac{1}{3}, \frac{7}{18}$	2	$\frac{1}{9}, \frac{1}{6}$	-2	$\frac{2}{9}, \frac{4}{9}$
-2	$\frac{1}{18}, \frac{2}{9}$	-4	$\frac{2}{9}, \frac{4}{9}$	$\frac{2}{3}$	$\frac{1}{9}, \frac{5}{18}$	$-\frac{4}{3}$	$\frac{1}{3}, \frac{4}{9}$
2	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{1}{3}, \frac{4}{9}$	-4	$0, \frac{1}{9}$	-2	$\frac{7}{18}, \frac{4}{9}$
4	$\frac{1}{9}, \frac{1}{6}$	-2	$\frac{7}{18}, \frac{4}{9}$	$\frac{4}{3}$	$\frac{1}{9}, \frac{1}{3}$	$-\frac{2}{3}$	$\frac{7}{18}, \frac{4}{9}$
-4	$\frac{1}{18}, \frac{7}{18}$	-6	$\frac{7}{18}, \frac{4}{9}$	-4	$\frac{2}{9}, \frac{7}{18}$	-2	$\frac{7}{18}, \frac{4}{9}$
2	$\frac{1}{9}, \frac{2}{9}$	2	$\frac{4}{9}, \frac{1}{2}$	2	$\frac{1}{9}, \frac{5}{18}$	4	$\frac{4}{9}, \frac{1}{2}$
$ D \equiv 13 \pmod{24}$							
-2	$\frac{1}{9}, \frac{2}{9}$	2	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{1}{18}, \frac{2}{9}$	4	$\frac{2}{9}, \frac{7}{18}$
2	$\frac{1}{18}, \frac{5}{18}$	-2	$\frac{1}{3}, \frac{7}{18}$	-2	$\frac{1}{9}, \frac{1}{6}$	2	$\frac{2}{9}, \frac{4}{9}$
2	$\frac{1}{18}, \frac{2}{9}$	4	$\frac{2}{9}, \frac{4}{9}$	2	$\frac{1}{9}, \frac{5}{18}$	-4	$\frac{1}{3}, \frac{4}{9}$
2	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{1}{3}, \frac{4}{9}$	4	$0, \frac{1}{9}$	2	$\frac{7}{18}, \frac{4}{9}$
-4	$\frac{1}{9}, \frac{1}{6}$	2	$\frac{7}{18}, \frac{4}{9}$	4	$\frac{1}{9}, \frac{1}{3}$	-2	$\frac{7}{18}, \frac{4}{9}$
4	$\frac{2}{9}, \frac{7}{18}$	2	$\frac{7}{18}, \frac{4}{9}$	-2	$\frac{1}{9}, \frac{2}{9}$	-2	$\frac{4}{9}, \frac{1}{2}$
-2	$\frac{1}{9}, \frac{5}{18}$	-4	$\frac{4}{9}, \frac{1}{2}$				
$ D \equiv 17 \pmod{24}$							
2	$0, \frac{1}{18}$	-2	$\frac{1}{6}, \frac{2}{9}$	2	$0, \frac{1}{9}$	-2	$\frac{1}{6}, \frac{5}{18}$
1	$\frac{1}{9}, \frac{1}{6}$	-1	$\frac{5}{18}, \frac{1}{3}$	-2	$0, \frac{1}{18}$	-2	$\frac{1}{9}, \frac{7}{18}$
$\frac{2}{3}$	$\frac{1}{18}, \frac{1}{9}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{7}{18}$	-1	$0, \frac{1}{18}$	-1	$\frac{5}{18}, \frac{7}{18}$
$\frac{1}{2}$	$\frac{1}{18}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{5}{18}, \frac{7}{18}$	-2	$0, \frac{2}{9}$	-2	$\frac{5}{18}, \frac{7}{18}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{2}{9}$	$-\frac{2}{3}$	$\frac{5}{18}, \frac{7}{18}$	1	$\frac{1}{18}, \frac{1}{9}$	-1	$\frac{1}{3}, \frac{7}{18}$
-2	$\frac{1}{9}, \frac{2}{9}$	-2	$\frac{1}{3}, \frac{7}{18}$	$\frac{2}{3}$	$\frac{1}{18}, \frac{5}{18}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{7}{18}$
1	$\frac{2}{9}, \frac{5}{18}$	-1	$\frac{1}{3}, \frac{7}{18}$	-1	$\frac{1}{18}, \frac{1}{9}$	-1	$\frac{1}{6}, \frac{4}{9}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{2}{3}$	$\frac{1}{9}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{2}{9}, \frac{4}{9}$	-2	$\frac{1}{18}, \frac{1}{9}$	-2	$\frac{1}{3}, \frac{4}{9}$
-2	$\frac{2}{9}, \frac{5}{18}$	-2	$\frac{1}{3}, \frac{4}{9}$	4	$\frac{1}{18}, \frac{1}{9}$	2	$\frac{7}{18}, \frac{4}{9}$
4	$\frac{1}{9}, \frac{2}{9}$	-2	$\frac{7}{18}, \frac{4}{9}$	$\frac{4}{3}$	$\frac{1}{18}, \frac{5}{18}$	$\frac{2}{3}$	$\frac{7}{18}, \frac{4}{9}$
4	$\frac{2}{9}, \frac{5}{18}$	2	$\frac{7}{18}, \frac{4}{9}$	-4	$0, \frac{7}{18}$	-2	$\frac{7}{18}, \frac{4}{9}$
$-\frac{4}{5}$	$\frac{1}{6}, \frac{7}{18}$	$-\frac{2}{5}$	$\frac{7}{18}, \frac{4}{9}$	$-\frac{4}{3}$	$\frac{1}{3}, \frac{7}{18}$	$-\frac{2}{3}$	$\frac{7}{18}, \frac{4}{9}$
-2	$0, \frac{1}{18}$	-2	$\frac{2}{9}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{18}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{2}{9}, \frac{1}{2}$
-2	$0, \frac{1}{9}$	-2	$\frac{5}{18}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{9}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{5}{18}, \frac{1}{2}$
1	$\frac{1}{18}, \frac{5}{18}$	1	$\frac{7}{18}, \frac{1}{2}$	2	$\frac{1}{18}, \frac{5}{18}$	-2	$\frac{4}{9}, \frac{1}{2}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{7}{18}$	$\frac{2}{3}$	$\frac{4}{9}, \frac{1}{2}$	-1	$\frac{1}{3}, \frac{7}{18}$	1	$\frac{4}{9}, \frac{1}{2}$
2	$\frac{7}{18}, \frac{4}{9}$	4	$\frac{4}{9}, \frac{1}{2}$				
$ D \equiv 5 \pmod{84}$							
-2	$0, \frac{1}{21}$	2	$\frac{4}{21}, \frac{5}{21}$	2	$0, \frac{2}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$
$ D \equiv 13 \pmod{84}$							
2	$\frac{1}{21}, \frac{2}{21}$	-2	$\frac{1}{7}, \frac{4}{21}$	-2	$\frac{2}{21}, \frac{4}{21}$	2	$\frac{2}{7}, \frac{8}{21}$
2	$\frac{4}{21}, \frac{5}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$	2	$\frac{1}{21}, \frac{5}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$
2	$\frac{1}{7}, \frac{5}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$	2	$\frac{1}{21}, \frac{2}{21}$	-2	$\frac{3}{7}, \frac{10}{21}$
$ D \equiv 17 \pmod{84}$							
-2	$0, \frac{1}{21}$	2	$\frac{4}{21}, \frac{5}{21}$	2	$0, \frac{2}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$
$ D \equiv 29 \pmod{84}$							
2	$\frac{2}{21}, \frac{1}{3}$	2	$\frac{8}{21}, \frac{10}{21}$				
$ D \equiv 41 \pmod{84}$							
-2	$0, \frac{1}{21}$	2	$\frac{4}{21}, \frac{5}{21}$	2	$0, \frac{2}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$
$ D \equiv 53 \pmod{84}$							
2	$\frac{2}{21}, \frac{1}{3}$	2	$\frac{8}{21}, \frac{10}{21}$				
$ D \equiv 61 \pmod{84}$							
2	$\frac{1}{21}, \frac{2}{21}$	-2	$\frac{1}{7}, \frac{4}{21}$	-2	$\frac{2}{21}, \frac{4}{21}$	2	$\frac{2}{7}, \frac{8}{21}$
2	$\frac{4}{21}, \frac{5}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$	2	$\frac{1}{21}, \frac{5}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$
2	$\frac{1}{7}, \frac{5}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$	2	$\frac{1}{21}, \frac{2}{21}$	-2	$\frac{3}{7}, \frac{10}{21}$
$ D \equiv 65 \pmod{84}$							
2	$\frac{2}{21}, \frac{1}{3}$	2	$\frac{8}{21}, \frac{10}{21}$				

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 73 \pmod{84}$							
2	$\frac{1}{21}, \frac{2}{21}$	-2	$\frac{1}{7}, \frac{4}{21}$	-2	$\frac{2}{21}, \frac{4}{21}$	2	$\frac{2}{7}, \frac{8}{21}$
2	$\frac{4}{21}, \frac{5}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$	2	$\frac{1}{21}, \frac{5}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$
2	$\frac{1}{7}, \frac{5}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$	2	$\frac{1}{21}, \frac{2}{21}$	-2	$\frac{3}{7}, \frac{10}{21}$
$ D \equiv 1 \pmod{24}$							
$\frac{2}{3}$	$0, \frac{1}{24}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{5}{24}$	-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{6}, \frac{7}{24}$
1	$0, \frac{1}{12}$	1	$\frac{5}{24}, \frac{7}{24}$	1	$0, \frac{1}{24}$	1	$\frac{5}{24}, \frac{1}{3}$
-2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{3}$	-2	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{7}{24}, \frac{1}{3}$
2	$0, \frac{1}{12}$	2	$\frac{1}{8}, \frac{3}{8}$	2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{1}{6}, \frac{3}{8}$
-2	$\frac{1}{8}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{3}{8}$	-2	$\frac{1}{8}, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{3}{8}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{5}{12}$	-1	$\frac{1}{24}, \frac{7}{24}$	-1	$\frac{1}{3}, \frac{5}{12}$
-1	$\frac{1}{24}, \frac{1}{12}$	-1	$\frac{1}{6}, \frac{11}{24}$	2	$0, \frac{1}{12}$	2	$\frac{5}{24}, \frac{11}{24}$
2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{3}, \frac{11}{24}$
-1	$\frac{1}{24}, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{11}{24}$	-2	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{11}{24}$
1	$0, \frac{7}{24}$	-1	$\frac{1}{3}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{11}{24}$
-2	$\frac{1}{12}, \frac{7}{24}$	2	$\frac{5}{12}, \frac{11}{24}$	2	$0, \frac{1}{24}$	2	$\frac{5}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{7}{24}, \frac{1}{2}$
-1	$\frac{1}{12}, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{1}{2}$	2	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{7}{24}, \frac{1}{2}$
-2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{7}{24}$	2	$\frac{5}{12}, \frac{1}{2}$
-2	$\frac{1}{8}, \frac{3}{8}$	2	$\frac{5}{12}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{11}{24}, \frac{1}{2}$	2	$0, \frac{7}{24}$	2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{7}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$	-1	$\frac{1}{24}, \frac{5}{12}$	1	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{5}{24}, \frac{5}{12}$	2	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 5 \pmod{24}$							
2	$0, \frac{5}{24}$	2	$\frac{7}{24}, \frac{1}{3}$	2	$\frac{1}{12}, \frac{5}{24}$	2	$\frac{7}{24}, \frac{1}{3}$
2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{7}{24}, \frac{1}{3}$	2	$0, \frac{1}{24}$	-2	$\frac{1}{3}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{3}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{3}$	2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{1}{3}$	-2	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 13 \pmod{24}$							
2	$0, \frac{1}{24}$	2	$\frac{5}{24}, \frac{1}{3}$	-2	$\frac{1}{24}, \frac{1}{6}$	2	$\frac{5}{24}, \frac{1}{3}$
2	$\frac{1}{24}, \frac{7}{24}$	-2	$\frac{1}{3}, \frac{5}{12}$	2	$\frac{5}{24}, \frac{7}{24}$	-2	$\frac{1}{3}, \frac{5}{12}$
2	$\frac{1}{8}, \frac{1}{3}$	-2	$\frac{3}{8}, \frac{5}{12}$	2	$0, \frac{7}{24}$	-2	$\frac{1}{3}, \frac{11}{24}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{6}, \frac{7}{24}$	-2	$\frac{1}{3}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{1}{3}$	2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{5}{24}, \frac{1}{3}$	2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{7}{24}, \frac{1}{3}$	-2	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 17 \pmod{24}$							
-2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{3}$	-1	$\frac{1}{6}, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{1}{3}$
-2	$\frac{1}{8}, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{3}{8}$	-1	0, $\frac{5}{24}$	-1	$\frac{7}{24}, \frac{5}{12}$
$-\frac{2}{3}$	$\frac{1}{12}, \frac{5}{24}$	$-\frac{2}{3}$	$\frac{7}{24}, \frac{5}{12}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{5}{24}$	$-\frac{1}{2}$	$\frac{7}{24}, \frac{5}{12}$
1	0, $\frac{1}{24}$	-1	$\frac{1}{12}, \frac{11}{24}$	$\frac{2}{3}$	0, $\frac{1}{24}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{11}{24}$
-1	$\frac{1}{24}, \frac{1}{12}$	-1	$\frac{1}{6}, \frac{11}{24}$	-1	$\frac{1}{24}, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{11}{24}$
1	0, $\frac{1}{24}$	-1	$\frac{1}{3}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{3}, \frac{11}{24}$
1	$\frac{1}{24}, \frac{1}{6}$	1	$\frac{5}{12}, \frac{11}{24}$	-2	0, $\frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$
-1	$\frac{1}{12}, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{1}{2}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{5}{24}$	$-\frac{2}{3}$	$\frac{7}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{11}{24}, \frac{1}{2}$	-1	$\frac{1}{24}, \frac{5}{12}$	1	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 1 \pmod{120}$							
$\frac{2}{3}$	0, $\frac{1}{30}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	1	0, $\frac{1}{30}$	1	$\frac{1}{10}, \frac{7}{30}$
1	0, $\frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{30}$	1	0, $\frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
-2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{10}, \frac{3}{10}$
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{1}{10}$
1	0, $\frac{1}{30}$	1	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{1}{3}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$
$\frac{1}{2}$	0, $\frac{1}{30}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$	-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{11}{30}$
1	0, $\frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	0, $\frac{1}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{30}$
1	0, $\frac{1}{5}$	-1	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	0, $\frac{1}{30}$	2	$\frac{1}{10}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{6}, \frac{2}{5}$
-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	0, $\frac{7}{30}$	-1	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{2}{5}$	2	0, $\frac{3}{10}$	2	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{2}{5}$	-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{13}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$	2	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{7}{30}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$	2	$0, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$
-2	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{7}{30}, \frac{13}{30}$	1	$0, \frac{1}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
2	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$
2	$0, \frac{7}{30}$	2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{13}{30}$	1	$0, \frac{1}{10}$	1	$\frac{11}{30}, \frac{13}{30}$
-2	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{13}{30}$
$\frac{4}{3}$	$0, \frac{7}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{13}{30}$
$-\frac{4}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$	-2	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{13}{30}$
$-\frac{4}{3}$	$\frac{1}{10}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{2}{5}, \frac{13}{30}$
4	$0, \frac{2}{5}$	2	$\frac{2}{5}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{1}{6}, \frac{2}{5}$	$-\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{7}{15}$
-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{7}{15}$
-2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{7}{15}$	2	$0, \frac{1}{30}$	2	$\frac{1}{5}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{2}$	-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{7}{30}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{1}{2}$	1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
2	$0, \frac{1}{5}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{1}{2}$
-2	$\frac{1}{30}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$0, \frac{7}{30}$	2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{11}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	2	$0, \frac{2}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{11}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 13 \pmod{120}$							
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 17 \pmod{120}$							
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{30}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{1}{5}, \frac{3}{10}$
1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{1}{3}$
2	$0, \frac{1}{5}$	2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{1}{3}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	1	$0, \frac{1}{30}$	-1	$\frac{1}{6}, \frac{11}{30}$
1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{11}{30}$	1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{7}{30}, \frac{11}{30}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$
2	$0, \frac{1}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
-1	$0, \frac{1}{30}$	-1	$\frac{1}{6}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{-1}{2}$	$\frac{1}{6}, \frac{2}{5}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{4}{15}, \frac{2}{5}$	-2	$0, \frac{1}{30}$	-2	$\frac{1}{3}, \frac{2}{5}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{-2}{3}$	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{30}, \frac{1}{6}$	$\frac{-1}{2}$	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{2}{5}$	-1	$\frac{1}{6}, \frac{11}{30}$	$\frac{-1}{2}$	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{3}, \frac{11}{30}$	-1	$\frac{11}{30}, \frac{2}{5}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{1}{6}, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{1}{5}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
-1	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$
-2	$0, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$
-2	$0, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{10}{30}$	-1	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{7}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{11}{30}$	1	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 29 \pmod{120}$							
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{7}{30}, \frac{4}{15}$
2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{2}{5}$
2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-4	$0, \frac{2}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{2}{15}, \frac{1}{3}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{4}{15}, \frac{11}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$	4	$0, \frac{1}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{13}{30}$
2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{2}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{2}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$				

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 37 \pmod{120}$				$ D \equiv 41 \pmod{120}$			
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 41 \pmod{120}$				$ D \equiv 41 \pmod{120}$			
2	0, $\frac{1}{30}$	-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{6}, \frac{1}{5}$
1	0, $\frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{30}$	1	0, $\frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{5}, \frac{4}{15}$	2	0, $\frac{1}{30}$	-1	$\frac{1}{10}, \frac{3}{10}$
2	0, $\frac{1}{30}$	-2	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{3}{10}$
1	0, $\frac{1}{30}$	-1	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{3}{10}$
1	$\frac{1}{10}, \frac{7}{30}$	-1	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{1}{3}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	0, $\frac{1}{30}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$	-2	0, $\frac{1}{10}$	-2	$\frac{1}{5}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{1}{5}, \frac{11}{30}$	-1	0, $\frac{1}{10}$	-1	$\frac{7}{30}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{11}{30}$	$-\frac{2}{3}$	$\frac{1}{30}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{3}{10}, \frac{11}{30}$	-2	0, $\frac{1}{5}$	-2	$\frac{3}{10}, \frac{11}{30}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	0, $\frac{1}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
4	0, $\frac{1}{30}$	2	$\frac{1}{30}, \frac{2}{5}$	-2	0, $\frac{1}{30}$	-2	$\frac{1}{6}, \frac{2}{5}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{2}{5}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{4}{15}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{2}{5}$
$\frac{4}{3}$	0, $\frac{1}{30}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{2}{5}$	-4	0, $\frac{11}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$
$-\frac{4}{5}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{4}{5}$	$\frac{11}{30}, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{1}{3}, \frac{11}{30}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{1}{5}$	2	$\frac{1}{5}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{1}{5}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
2	$0, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{7}{30}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{13}{30}$
2	$0, \frac{7}{30}$	2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{13}{30}$
1	$0, \frac{3}{10}$	1	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
2	$0, \frac{1}{10}$	2	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{5}, \frac{11}{30}$	1	$\frac{2}{5}, \frac{13}{30}$
$-\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{7}{15}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$
1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$	-2	$0, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{1}{2}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{7}{30}, \frac{1}{2}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{1}{2}$
1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{1}{2}$
2	$0, \frac{1}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{1}{2}$	-2	$0, \frac{11}{30}$	2	$\frac{2}{5}, \frac{1}{2}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{30}, \frac{2}{5}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	$0, \frac{1}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{13}{30}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{2}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{1}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{7}{15}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{11}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$				

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 49$				$(\text{mod } 120)$			
$\frac{2}{3}$	$0, \frac{1}{30}$	$\frac{-2}{3}$	$\frac{1}{6}, \frac{1}{5}$	1	$0, \frac{1}{30}$	1	$\frac{1}{10}, \frac{7}{30}$
1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{30}$	1	$0, \frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
-2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{10}, \frac{3}{10}$
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{3}{10}$
1	$0, \frac{1}{30}$	1	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{1}{3}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$\frac{-1}{2}$	$\frac{1}{6}, \frac{11}{30}$	-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{11}{30}$
1	$0, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	$0, \frac{1}{30}$	$\frac{-2}{3}$	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{30}$
1	$0, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{6}, \frac{2}{5}$
-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$	1	$0, \frac{7}{30}$	-1	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{6}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{13}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$
2	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$
2	$0, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{7}{30}, \frac{13}{30}$
1	$0, \frac{1}{30}$	1	$\frac{3}{10}, \frac{13}{30}$	2	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{13}{30}$
-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$0, \frac{7}{30}$	2	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{13}{30}$
1	$0, \frac{1}{10}$	1	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{13}{30}$	$\frac{4}{3}$	$0, \frac{7}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{13}{30}$	$\frac{-4}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{13}{30}$	$\frac{-4}{3}$	$\frac{1}{10}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{2}{5}, \frac{13}{30}$	4	$0, \frac{2}{5}$	2	$\frac{2}{5}, \frac{13}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$-\frac{4}{3}$	$\frac{1}{6}, \frac{2}{5}$	$-\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$
-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$	-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{7}{15}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{2}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{7}{15}$
2	$0, \frac{1}{30}$	2	$\frac{1}{5}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{7}{30}, \frac{1}{2}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{1}{2}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{4}{15}, \frac{1}{2}$	1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
2	$0, \frac{1}{5}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{1}{2}$
-2	$\frac{1}{30}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$0, \frac{7}{30}$	2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$	1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{10}, \frac{11}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	2	$0, \frac{2}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{11}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 53 \pmod{120}$							
2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{2}{15}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 61 \pmod{120}$							
-2	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{5}, \frac{3}{10}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{1}{3}$	4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{2}{5}$	-4	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{2}{5}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	0, $\frac{1}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{10}, \frac{4}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{2}{5}$	2	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{1}{5}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{4}{15}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{2}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 73 \pmod{120}$							
1	0, $\frac{1}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$
2	0, $\frac{1}{30}$	2	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{1}{3}$
-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{1}{3}$
-2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$	1	0, $\frac{1}{30}$	-1	$\frac{1}{6}, \frac{11}{30}$
-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{11}{30}$	2	0, $\frac{1}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{11}{30}$	2	0, $\frac{1}{5}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{2}{5}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$	2	0, $\frac{7}{30}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{6}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{13}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{3}{10}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{13}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{13}{30}$	-2	$0, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	-1	$\frac{2}{5}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{1}{2}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{2}{5}$	1	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 77 \pmod{120}$							
2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{2}{15}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$				
$ D \equiv 89 \pmod{120}$							
2	$0, \frac{1}{30}$	-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{6}, \frac{1}{5}$
1	$0, \frac{1}{15}$	1	$\frac{2}{15}, \frac{7}{30}$	1	$0, \frac{1}{30}$	1	$\frac{2}{15}, \frac{4}{15}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{5}, \frac{4}{15}$	2	$0, \frac{1}{30}$	-1	$\frac{1}{10}, \frac{3}{10}$
2	$0, \frac{1}{30}$	-2	$\frac{1}{5}, \frac{3}{10}$	1	$0, \frac{1}{30}$	-1	$\frac{7}{30}, \frac{3}{10}$
1	$\frac{1}{10}, \frac{7}{30}$	-1	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{1}{3}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$
$\frac{1}{2}$	$0, \frac{1}{30}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{11}{30}$	-2	$0, \frac{1}{10}$	-2	$\frac{1}{5}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{1}{5}, \frac{11}{30}$	-1	$0, \frac{1}{10}$	-1	$\frac{7}{30}, \frac{11}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{11}{30}$	$-\frac{2}{3}$	$\frac{1}{30}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{3}{10}, \frac{11}{30}$	-2	$0, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{11}{30}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	$0, \frac{1}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	$\frac{1}{2}$	$\frac{1}{10}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
4	$0, \frac{1}{30}$	2	$\frac{1}{30}, \frac{2}{5}$	-2	$0, \frac{1}{30}$	-2	$\frac{1}{6}, \frac{2}{5}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{2}{5}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{4}{15}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{2}{5}$
$\frac{4}{3}$	$0, \frac{1}{30}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{11}{30}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{2}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{1}{30}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{2}{5}$	-4	$0, \frac{11}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$
$-\frac{4}{5}$	$\frac{1}{6}, \frac{11}{30}$	$-\frac{2}{5}$	$\frac{11}{30}, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{1}{3}, \frac{11}{30}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$
4	$0, \frac{1}{5}$	2	$\frac{1}{5}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{1}{5}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
2	$0, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{7}{30}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{1}{3}, \frac{13}{30}$
2	$0, \frac{7}{30}$	2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{13}{30}$
1	$0, \frac{3}{10}$	1	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
2	$0, \frac{1}{10}$	2	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{5}, \frac{11}{30}$	1	$\frac{2}{5}, \frac{13}{30}$
$-\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{7}{15}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$0, \frac{1}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{1}{2}$
-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$	-2	$0, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{1}{2}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{7}{30}, \frac{1}{2}$	-1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{1}{2}$
1	$0, \frac{1}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{11}{30}, \frac{1}{2}$
2	$0, \frac{1}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{1}{2}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{30}, \frac{2}{5}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{1}{2}$
2	$0, \frac{1}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{13}{30}, \frac{1}{2}$
1	$0, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{2}{5}$	-2	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{7}{15}, \frac{1}{2}$	-1	$\frac{1}{15}, \frac{11}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 97 \pmod{120}$							
1	$0, \frac{1}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$
2	$0, \frac{1}{30}$	2	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{1}{3}$
-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{1}{3}$
-2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$	1	$0, \frac{1}{30}$	-1	$\frac{1}{6}, \frac{11}{30}$
-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{11}{30}$	2	$0, \frac{1}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{11}{30}$	2	$0, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{2}{5}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$	2	$0, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{6}, \frac{10}{10}$	-1	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{6}, \frac{13}{30}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{3}{10}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{13}{30}$	-2	0, $\frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	2	$\frac{1}{5}, \frac{10}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{2}{5}$	$-\frac{1}{2}$	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
-1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{7}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	-1	$\frac{2}{5}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{1}{2}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{2}{5}$	1	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 101 \pmod{120}$							
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{7}{30}, \frac{4}{15}$
2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{2}{5}$
2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-4	0, $\frac{2}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{2}{15}, \frac{1}{3}$	$-\frac{2}{3}$	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{4}{15}, \frac{11}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$	4	0, $\frac{1}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{13}{30}$
2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	-2	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{2}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{1}{2}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{2}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 109 \pmod{120}$							
-2	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{5}, \frac{3}{10}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{1}{3}$	4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{2}{5}$	-4	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{2}{5}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	0, $\frac{1}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{10}, \frac{4}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{2}{5}$	2	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{1}{5}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{4}{15}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{1}{15}, \frac{1}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{2}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{2}{5}$	-2	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 113 \pmod{120}$							
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{7}{30}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{1}{5}, \frac{3}{10}$
1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{1}{3}$
2	0, $\frac{1}{5}$	2	$\frac{7}{30}, \frac{1}{3}$	-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{7}{30}, \frac{1}{3}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	1	0, $\frac{1}{30}$	-1	$\frac{1}{6}, \frac{11}{30}$
1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{1}{5}, \frac{11}{30}$	1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{7}{30}, \frac{11}{30}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$
2	0, $\frac{1}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
-1	0, $\frac{1}{30}$	-1	$\frac{1}{6}, \frac{2}{5}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{1}{6}, \frac{2}{5}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{4}{15}, \frac{2}{5}$	-2	0, $\frac{1}{30}$	-2	$\frac{1}{3}, \frac{2}{5}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{2}{5}$

Table 5.2: $e = 3$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{30}, \frac{1}{6}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{11}{30}, \frac{2}{5}$	-1	$\frac{1}{6}, \frac{11}{30}$	$-\frac{1}{2}$	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{3}, \frac{11}{30}$	-1	$\frac{11}{30}, \frac{2}{5}$	-1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{13}{30}$
-1	$\frac{1}{6}, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{1}{5}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{1}{5}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
-1	$\frac{1}{6}, \frac{7}{30}$	$-\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{1}{3}, \frac{13}{30}$
-2	0, $\frac{1}{5}$	-2	$\frac{1}{3}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$
-2	0, $\frac{7}{30}$	-2	$\frac{1}{3}, \frac{13}{30}$	$-\frac{2}{3}$	$\frac{1}{6}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{1}{6}, \frac{3}{10}$	-1	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{1}{6}$	-1	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{13}{30}$	-1	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{1}{6}, \frac{7}{15}$
1	$\frac{2}{15}, \frac{1}{6}$	-1	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{7}{15}$
-1	$\frac{1}{6}, \frac{1}{5}$	-1	$\frac{7}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{11}{30}$	1	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{1}{2}$				

For the case $e = 4$ there were 307 formulae, given below.

Table 5.3: Two Term Dirichlet Type Formulae, $e = 4$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{8}$							
1	0, $\frac{1}{8}$	-1	$\frac{1}{4}, \frac{3}{8}$	2	0, $\frac{1}{8}$	2	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 5 \pmod{8}$							
-2	0, $\frac{1}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$	1	$\frac{1}{8}, \frac{1}{4}$	-1	$\frac{3}{8}, \frac{1}{2}$

Table 5.3: $e = 4$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{24}$							
1	$0, \frac{1}{12}$	-1	$\frac{1}{12}, \frac{1}{6}$	$\frac{4}{3}$	$0, \frac{1}{12}$	$\frac{2}{3}$	$\frac{1}{6}, \frac{1}{4}$
2	$0, \frac{1}{12}$	2	$\frac{1}{6}, \frac{1}{3}$	1	$0, \frac{1}{12}$	-1	$\frac{1}{4}, \frac{1}{3}$
1	$0, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{1}{3}$	2	$0, \frac{1}{12}$	1	$\frac{1}{12}, \frac{5}{12}$
$\frac{3}{2}$	$0, \frac{1}{12}$	$\frac{1}{2}$	$\frac{1}{6}, \frac{5}{12}$	3	$0, \frac{1}{6}$	2	$\frac{1}{6}, \frac{5}{12}$
-3	$\frac{1}{12}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{5}{12}$	2	$0, \frac{1}{12}$	2	$\frac{1}{4}, \frac{5}{12}$
-2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{5}{12}$	2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{5}{12}$
$\frac{4}{3}$	$0, \frac{1}{12}$	$\frac{2}{3}$	$\frac{1}{3}, \frac{5}{12}$	2	$0, \frac{1}{6}$	2	$\frac{1}{3}, \frac{5}{12}$
-4	$\frac{1}{12}, \frac{1}{4}$	2	$\frac{1}{3}, \frac{5}{12}$	4	$0, \frac{1}{3}$	2	$\frac{1}{3}, \frac{5}{12}$
-4	$\frac{1}{6}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{5}{12}$	2	$0, \frac{1}{12}$	1	$\frac{1}{6}, \frac{1}{2}$
-2	$\frac{1}{12}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{1}{2}$	2	$0, \frac{1}{12}$	2	$\frac{1}{3}, \frac{1}{2}$
-2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{1}{3}, \frac{1}{2}$
1	$0, \frac{1}{12}$	-1	$\frac{5}{12}, \frac{1}{2}$	1	$0, \frac{1}{6}$	-2	$\frac{5}{12}, \frac{1}{2}$
-2	$\frac{1}{12}, \frac{1}{4}$	-2	$\frac{5}{12}, \frac{1}{2}$	2	$0, \frac{1}{3}$	-2	$\frac{5}{12}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{3}$	-2	$\frac{5}{12}, \frac{1}{2}$	-1	$\frac{1}{12}, \frac{5}{12}$	-2	$\frac{5}{12}, \frac{1}{2}$
-1	$\frac{1}{6}, \frac{5}{12}$	-3	$\frac{5}{12}, \frac{1}{2}$				
$ D \equiv 17 \pmod{24}$							
4	$0, \frac{1}{12}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{12}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{4}$
2	$0, \frac{1}{12}$	-2	$\frac{1}{4}, \frac{1}{3}$	1	$0, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{1}{3}$
2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{1}{3}$	-2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{1}{3}$
-2	$0, \frac{1}{12}$	-2	$\frac{1}{4}, \frac{5}{12}$	-1	$0, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{5}{12}$
-2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{5}{12}$	1	$\frac{1}{12}, \frac{1}{4}$	-1	$\frac{1}{4}, \frac{5}{12}$
$\frac{2}{3}$	$\frac{1}{6}, \frac{1}{4}$	$-\frac{4}{3}$	$\frac{1}{4}, \frac{5}{12}$	2	$\frac{1}{12}, \frac{1}{4}$	-1	$\frac{1}{3}, \frac{5}{12}$
2	$\frac{1}{6}, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{5}{12}$	-2	$\frac{1}{4}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{5}{12}$
2	$\frac{1}{12}, \frac{1}{4}$	-2	$\frac{1}{3}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{1}{3}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{1}{4}$	2	$\frac{5}{12}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{5}{12}, \frac{1}{2}$
-2	$\frac{1}{4}, \frac{1}{3}$	2	$\frac{5}{12}, \frac{1}{2}$				
$ D \equiv 1 \pmod{8}$							
2	$0, \frac{1}{8}$	2	$\frac{3}{16}, \frac{5}{16}$	-2	$\frac{1}{16}, \frac{1}{8}$	-2	$\frac{1}{4}, \frac{7}{16}$
-2	$\frac{1}{16}, \frac{3}{16}$	-2	$\frac{5}{16}, \frac{7}{16}$	-2	$\frac{1}{8}, \frac{3}{16}$	-2	$\frac{5}{16}, \frac{1}{2}$
-2	$\frac{1}{16}, \frac{3}{8}$	2	$\frac{7}{16}, \frac{1}{2}$				

Table 5.3: $e = 4$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 5 \pmod{8}$							
-2	$0, \frac{1}{8}$	2	$\frac{3}{16}, \frac{5}{16}$	2	$\frac{3}{16}, \frac{1}{4}$	-2	$\frac{5}{16}, \frac{3}{8}$
-2	$\frac{1}{16}, \frac{3}{16}$	-2	$\frac{5}{16}, \frac{7}{16}$	2	$0, \frac{1}{16}$	-2	$\frac{3}{8}, \frac{7}{16}$
$ D \equiv 1 \pmod{40}$							
-2	$\frac{1}{20}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{7}{20}$	-2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{1}{4}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{2}{5}$	-2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{1}{4}, \frac{9}{20}$
-2	$\frac{3}{20}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{9}{20}$				
$ D \equiv 9 \pmod{40}$							
-2	$\frac{1}{20}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{7}{20}$	-2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{1}{4}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{2}{5}$	-2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{1}{4}, \frac{9}{20}$
-2	$\frac{3}{20}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{9}{20}$				
$ D \equiv 13 \pmod{40}$							
2	$\frac{1}{20}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{7}{20}$	2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{7}{20}$
2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{3}{10}, \frac{2}{5}$
-2	$0, \frac{1}{20}$	-2	$\frac{7}{20}, \frac{2}{5}$	1	$\frac{1}{20}, \frac{1}{4}$	-1	$\frac{7}{20}, \frac{2}{5}$
-2	$\frac{3}{20}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$
-2	$0, \frac{1}{5}$	-2	$\frac{7}{20}, \frac{9}{20}$	1	$\frac{1}{5}, \frac{1}{4}$	-1	$\frac{7}{20}, \frac{9}{20}$
-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{7}{20}, \frac{9}{20}$	2	$0, \frac{3}{20}$	-2	$\frac{2}{5}, \frac{9}{20}$
2	$\frac{3}{10}, \frac{7}{20}$	-2	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{1}{5}, \frac{1}{2}$
2	$\frac{1}{20}, \frac{7}{20}$	2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{7}{20}$	2	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 17 \pmod{40}$							
2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{7}{20}, \frac{2}{5}$
-2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{1}{4}, \frac{9}{20}$	-1	$\frac{3}{20}, \frac{1}{5}$	-1	$\frac{1}{4}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{7}{20}, \frac{9}{20}$
1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{7}{20}, \frac{9}{20}$
2	$\frac{1}{10}, \frac{3}{20}$	-2	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{5}$	-2	$\frac{7}{20}, \frac{1}{2}$
-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{9}{20}, \frac{1}{2}$	-2	$\frac{7}{20}, \frac{2}{5}$	2	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 21 \pmod{40}$							
-2	$\frac{1}{20}, \frac{3}{20}$	2	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{7}{20}$
2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{20}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{2}{5}, \frac{9}{20}$

Table 5.3: $e = 4$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 29 \pmod{40}$							
-2	$\frac{1}{20}, \frac{3}{20}$	2	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{7}{20}$
2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{20}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{2}{5}, \frac{9}{20}$
$ D \equiv 33 \pmod{40}$							
2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{1}{5}, \frac{3}{10}$
-2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{1}{4}, \frac{2}{5}$	2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{7}{20}, \frac{2}{5}$
-2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{1}{4}, \frac{9}{20}$	-1	$\frac{3}{20}, \frac{1}{5}$	-1	$\frac{1}{4}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{7}{20}, \frac{9}{20}$
1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{7}{20}, \frac{9}{20}$
2	$\frac{1}{10}, \frac{3}{20}$	-2	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{5}$	-2	$\frac{7}{20}, \frac{1}{2}$
2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{9}{20}, \frac{1}{2}$
-2	$\frac{7}{20}, \frac{2}{5}$	2	$\frac{9}{20}, \frac{1}{2}$				
$ D \equiv 37 \pmod{40}$							
2	$\frac{1}{20}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{7}{20}$	2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{7}{20}$
2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{3}{10}, \frac{2}{5}$
-2	0, $\frac{1}{20}$	-2	$\frac{7}{20}, \frac{2}{5}$	1	$\frac{1}{20}, \frac{1}{4}$	-1	$\frac{7}{20}, \frac{2}{5}$
-2	$\frac{3}{20}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$
-2	0, $\frac{1}{5}$	-2	$\frac{7}{20}, \frac{9}{20}$	1	$\frac{1}{5}, \frac{1}{4}$	-1	$\frac{7}{20}, \frac{9}{20}$
-1	$\frac{1}{10}, \frac{3}{10}$	-2	$\frac{7}{20}, \frac{9}{20}$	2	0, $\frac{3}{20}$	-2	$\frac{2}{5}, \frac{9}{20}$
2	$\frac{3}{10}, \frac{7}{20}$	-2	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{3}{20}$	-2	$\frac{1}{5}, \frac{1}{2}$
2	$\frac{1}{20}, \frac{7}{20}$	2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{5}, \frac{7}{20}$	2	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 1 \pmod{24}$							
1	0, $\frac{1}{12}$	-1	$\frac{5}{24}, \frac{7}{24}$	1	0, $\frac{1}{6}$	-2	$\frac{5}{24}, \frac{7}{24}$
1	0, $\frac{1}{24}$	-1	$\frac{1}{4}, \frac{7}{24}$	-2	$\frac{1}{24}, \frac{5}{24}$	-2	$\frac{1}{4}, \frac{1}{3}$
2	0, $\frac{5}{24}$	2	$\frac{7}{24}, \frac{1}{3}$	2	0, $\frac{1}{24}$	2	$\frac{5}{24}, \frac{5}{12}$
-4	$\frac{1}{24}, \frac{5}{24}$	2	$\frac{1}{3}, \frac{5}{12}$	-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{4}, \frac{11}{24}$
1	0, $\frac{5}{24}$	-1	$\frac{1}{4}, \frac{11}{24}$	2	0, $\frac{1}{12}$	2	$\frac{7}{24}, \frac{11}{24}$
-2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{11}{24}$	2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{24}$	1	0, $\frac{1}{24}$	-1	$\frac{5}{12}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{4}$	-2	$\frac{5}{12}, \frac{11}{24}$	2	0, $\frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{1}{2}$	2	0, $\frac{1}{24}$	2	$\frac{7}{24}, \frac{1}{2}$

Table 5.3: $e = 4$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{5}{24}, \frac{7}{24}$	-2	$\frac{1}{3}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{5}{24}$	-2	$\frac{5}{12}, \frac{1}{2}$
2	$0, \frac{5}{24}$	2	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{7}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{1}{24}, \frac{1}{3}$	2	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 5 \pmod{24}$							
2	$0, \frac{5}{24}$	-2	$\frac{1}{4}, \frac{7}{24}$	2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{1}{4}, \frac{7}{24}$
2	$\frac{1}{6}, \frac{5}{24}$	-2	$\frac{1}{4}, \frac{7}{24}$	-2	$0, \frac{1}{8}$	2	$\frac{1}{6}, \frac{3}{8}$
-2	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{6}, \frac{3}{8}$	2	$\frac{1}{24}, \frac{5}{24}$	-4	$\frac{1}{4}, \frac{3}{8}$
2	$\frac{1}{8}, \frac{5}{24}$	2	$\frac{7}{24}, \frac{3}{8}$	2	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{7}{24}, \frac{5}{12}$
-2	$0, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	-2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{3}{8}, \frac{5}{12}$	-2	$\frac{1}{24}, \frac{5}{24}$	-4	$\frac{3}{8}, \frac{5}{12}$
1	$\frac{1}{8}, \frac{1}{4}$	-1	$\frac{3}{8}, \frac{5}{12}$	-2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{5}{12}$
-4	$0, \frac{1}{8}$	-2	$\frac{5}{24}, \frac{11}{24}$	-4	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{5}{24}, \frac{11}{24}$
4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{11}{24}$	2	$0, \frac{1}{24}$	-2	$\frac{1}{4}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{4}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{11}{24}$
-4	$0, \frac{1}{8}$	-2	$\frac{7}{24}, \frac{11}{24}$	-4	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{7}{24}, \frac{11}{24}$
4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{11}{24}$	$\frac{4}{3}$	$\frac{1}{8}, \frac{1}{4}$	$-\frac{2}{3}$	$\frac{7}{24}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{7}{24}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$
2	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{5}{24}$	-4	$\frac{3}{8}, \frac{1}{2}$
-2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{4}$	-2	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 13 \pmod{24}$							
-2	$0, \frac{1}{24}$	2	$\frac{1}{6}, \frac{7}{24}$	1	$\frac{1}{24}, \frac{1}{12}$	1	$\frac{1}{6}, \frac{7}{24}$
-2	$0, \frac{1}{8}$	2	$\frac{1}{6}, \frac{3}{8}$	-1	$\frac{1}{12}, \frac{1}{8}$	1	$\frac{1}{6}, \frac{3}{8}$
-2	$\frac{1}{24}, \frac{1}{8}$	2	$\frac{5}{24}, \frac{3}{8}$	-2	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{4}, \frac{3}{8}$
-2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	2	$\frac{1}{8}, \frac{1}{4}$	-2	$\frac{3}{8}, \frac{5}{12}$
-2	$0, \frac{1}{24}$	2	$\frac{1}{6}, \frac{11}{24}$	1	$\frac{1}{24}, \frac{1}{12}$	1	$\frac{1}{6}, \frac{11}{24}$
2	$\frac{1}{8}, \frac{7}{24}$	-2	$\frac{3}{8}, \frac{11}{24}$	2	$0, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{6}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$	-2	$0, \frac{1}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$
1	$\frac{1}{24}, \frac{1}{12}$	-1	$\frac{7}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{1}{2}$
-2	$0, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$	-1	$\frac{1}{12}, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$	1	$\frac{1}{24}, \frac{1}{4}$	-1	$\frac{7}{24}, \frac{1}{2}$
1	$\frac{5}{24}, \frac{1}{4}$	-1	$\frac{7}{24}, \frac{1}{2}$	-1	$\frac{1}{12}, \frac{1}{8}$	-1	$\frac{3}{8}, \frac{1}{2}$

Table 5.3: $e = 4$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{3}{8}, \frac{1}{2}$	-2	$0, \frac{1}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$
1	$\frac{1}{24}, \frac{1}{12}$	-1	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{11}{24}, \frac{1}{2}$
-2	$0, \frac{5}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$	-1	$\frac{1}{12}, \frac{5}{24}$	-1	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{5}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$	1	$\frac{1}{24}, \frac{1}{4}$	-1	$\frac{11}{24}, \frac{1}{2}$
1	$\frac{5}{24}, \frac{1}{4}$	-1	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{7}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{1}{4}, \frac{7}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$	1	$\frac{1}{24}, \frac{5}{12}$	-1	$\frac{11}{24}, \frac{1}{2}$
1	$\frac{5}{24}, \frac{5}{12}$	-1	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{7}{24}, \frac{5}{12}$	-2	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 17 \pmod{24}$							
2	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{7}{24}, \frac{1}{3}$	2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{1}{3}, \frac{3}{8}$
4	$0, \frac{1}{8}$	2	$\frac{5}{24}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{1}{4}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 1 \pmod{56}$							
2	$0, \frac{1}{28}$	2	$\frac{3}{28}, \frac{9}{28}$	-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{5}{28}, \frac{5}{14}$
-2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{5}{14}$	-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{5}{28}, \frac{11}{28}$
-2	$\frac{3}{28}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{11}{28}$	-2	$\frac{1}{14}, \frac{1}{7}$	-2	$\frac{1}{4}, \frac{3}{7}$
-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{1}{4}, \frac{13}{28}$	2	$0, \frac{5}{28}$	2	$\frac{11}{28}, \frac{13}{28}$
-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{9}{28}, \frac{1}{2}$	-2	$\frac{5}{28}, \frac{11}{28}$	-2	$\frac{13}{28}, \frac{1}{2}$
$ D \equiv 5 \pmod{56}$							
2	$\frac{1}{7}, \frac{1}{4}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{9}{28}, \frac{5}{14}$
2	$\frac{3}{14}, \frac{1}{4}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 9 \pmod{56}$							
2	$0, \frac{1}{28}$	2	$\frac{3}{28}, \frac{9}{28}$	-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{5}{28}, \frac{5}{14}$
-2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{5}{14}$	-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{5}{28}, \frac{11}{28}$
-2	$\frac{3}{28}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{11}{28}$	-2	$\frac{1}{28}, \frac{3}{14}$	-2	$\frac{9}{28}, \frac{11}{28}$
-2	$\frac{1}{14}, \frac{1}{7}$	-2	$\frac{1}{4}, \frac{3}{7}$	-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{1}{4}, \frac{13}{28}$
2	$0, \frac{5}{28}$	2	$\frac{11}{28}, \frac{13}{28}$	-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{9}{28}, \frac{1}{2}$
-2	$\frac{5}{28}, \frac{11}{28}$	-2	$\frac{13}{28}, \frac{1}{2}$				
$ D \equiv 13 \pmod{56}$							
2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{9}{28}, \frac{5}{14}$	2	$\frac{3}{14}, \frac{1}{4}$	-2	$\frac{2}{7}, \frac{3}{7}$
$ D \equiv 17 \pmod{56}$							
2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{1}{4}, \frac{9}{28}$	-2	$\frac{1}{14}, \frac{1}{7}$	-2	$\frac{1}{4}, \frac{3}{7}$

Table 5.3: $e = 4$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{1}{4}, \frac{13}{28}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{11}{28}, \frac{13}{28}$
$ D \equiv 25 \pmod{56}$							
2	$0, \frac{1}{28}$	2	$\frac{3}{28}, \frac{9}{28}$	-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{5}{28}, \frac{5}{14}$
-2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{5}{14}$	-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{5}{28}, \frac{11}{28}$
-2	$\frac{3}{28}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{11}{28}$	-2	$\frac{1}{28}, \frac{3}{14}$	-2	$\frac{9}{28}, \frac{11}{28}$
-2	$\frac{1}{14}, \frac{1}{7}$	-2	$\frac{1}{4}, \frac{3}{7}$	-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{1}{4}, \frac{13}{28}$
2	$0, \frac{5}{28}$	2	$\frac{11}{28}, \frac{13}{28}$	-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{9}{28}, \frac{1}{2}$
-2	$\frac{5}{28}, \frac{11}{28}$	-2	$\frac{13}{28}, \frac{1}{2}$				
$ D \equiv 29 \pmod{56}$							
2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{9}{28}, \frac{5}{14}$	-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{9}{28}, \frac{11}{28}$
2	$\frac{3}{14}, \frac{1}{4}$	-2	$\frac{2}{7}, \frac{3}{7}$	-2	$\frac{9}{28}, \frac{11}{28}$	2	$\frac{3}{7}, \frac{13}{28}$
$ D \equiv 33 \pmod{56}$							
2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{1}{4}, \frac{9}{28}$	-2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{5}{14}$
-2	$\frac{3}{28}, \frac{3}{14}$	-2	$\frac{1}{4}, \frac{11}{28}$	-2	$\frac{1}{14}, \frac{1}{7}$	-2	$\frac{1}{4}, \frac{3}{7}$
-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{1}{4}, \frac{13}{28}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{11}{28}, \frac{13}{28}$
$ D \equiv 37 \pmod{56}$							
2	$\frac{1}{7}, \frac{1}{4}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{9}{28}, \frac{5}{14}$
-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{9}{28}, \frac{11}{28}$	2	$\frac{3}{14}, \frac{1}{4}$	-2	$\frac{2}{7}, \frac{3}{7}$
-2	$\frac{9}{28}, \frac{11}{28}$	2	$\frac{3}{7}, \frac{13}{28}$				
$ D \equiv 41 \pmod{56}$							
2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{1}{4}, \frac{9}{28}$	-2	$\frac{1}{14}, \frac{1}{7}$	-2	$\frac{1}{4}, \frac{3}{7}$
-2	$\frac{1}{28}, \frac{1}{14}$	-2	$\frac{1}{4}, \frac{13}{28}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{11}{28}, \frac{13}{28}$
$ D \equiv 45 \pmod{56}$							
2	$\frac{1}{7}, \frac{1}{4}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{9}{28}, \frac{5}{14}$
2	$\frac{3}{14}, \frac{1}{4}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 53 \pmod{56}$							
2	$\frac{1}{7}, \frac{1}{4}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{9}{28}, \frac{5}{14}$
-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{9}{28}, \frac{11}{28}$	2	$\frac{3}{14}, \frac{1}{4}$	-2	$\frac{2}{7}, \frac{3}{7}$
-2	$\frac{9}{28}, \frac{11}{28}$	2	$\frac{3}{7}, \frac{13}{28}$				

For the case $e = 5$ there were 1843 formulae, given below.

Table 5.4: Two Term Dirichlet Type Formulae, $e = 5$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 3 \pmod{40}$							
-2	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{2}{5}$
-2	$0, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{1}{2}$	2	$0, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{3}{10}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 7 \pmod{40}$							
-1	$0, \frac{1}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	1	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{3}{10}$
$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{3}{2}$	$\frac{1}{5}, \frac{3}{10}$	$-\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{10}, \frac{2}{5}$
2	$0, \frac{1}{5}$	-6	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{2}{5}$
1	$0, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{2}{5}$	2	$0, \frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{2}$
-1	$0, \frac{1}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$0, \frac{1}{5}$	-3	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{2}{5}, \frac{1}{2}$	-2	$0, \frac{2}{5}$	-6	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 11 \pmod{40}$							
-8	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{1}{2}$	$-\frac{8}{3}$	$0, \frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{2}$	8	$0, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$
-8	$0, \frac{1}{5}$	4	$\frac{2}{5}, \frac{1}{2}$	8	$0, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{8}{3}$	$0, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 19 \pmod{40}$							
-8	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{1}{2}$	$-\frac{8}{3}$	$0, \frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{2}$	8	$0, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$
-8	$0, \frac{1}{5}$	4	$\frac{2}{5}, \frac{1}{2}$	8	$0, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{8}{3}$	$0, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 23 \pmod{40}$							
-1	$0, \frac{1}{10}$	2	$\frac{1}{10}, \frac{1}{5}$	1	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{3}{10}$
$\frac{1}{2}$	$0, \frac{1}{5}$	$\frac{3}{2}$	$\frac{1}{5}, \frac{3}{10}$	$-\frac{1}{2}$	$0, \frac{1}{10}$	1	$\frac{1}{10}, \frac{2}{5}$
2	$0, \frac{1}{5}$	-6	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	-2	$\frac{3}{10}, \frac{2}{5}$
1	$0, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{2}{5}$	2	$0, \frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{2}$
-1	$0, \frac{1}{10}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$0, \frac{1}{5}$	-3	$\frac{2}{5}, \frac{1}{2}$
1	$\frac{1}{5}, \frac{3}{10}$	-1	$\frac{2}{5}, \frac{1}{2}$	-2	$0, \frac{2}{5}$	-6	$\frac{2}{5}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 27 \pmod{40}$							
-2	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{2}{5}$
-2	$0, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{1}{2}$	2	$0, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{3}{10}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 7 \pmod{60}$							
-1	$0, \frac{1}{5}$	3	$\frac{1}{5}, \frac{1}{3}$	2	$0, \frac{1}{5}$	6	$\frac{1}{3}, \frac{2}{5}$
1	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$				
$ D \equiv 11 \pmod{60}$							
4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{3}$
-1	$\frac{2}{15}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{3}$	4	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 19 \pmod{60}$							
-2	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{4}{15}$	-2	$0, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{3}$
2	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{7}{15}$				
$ D \equiv 23 \pmod{60}$							
2	$0, \frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{3}$
-1	$0, \frac{1}{5}$	3	$\frac{1}{3}, \frac{2}{5}$	-2	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{7}{15}$
$ D \equiv 31 \pmod{60}$							
-2	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{4}{15}$	-2	$0, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{3}$
2	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{7}{15}$				
$ D \equiv 43 \pmod{60}$							
-1	$0, \frac{1}{5}$	3	$\frac{1}{5}, \frac{1}{3}$	2	$0, \frac{1}{5}$	6	$\frac{1}{3}, \frac{2}{5}$
1	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$				
$ D \equiv 47 \pmod{60}$							
2	$0, \frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{3}$
-1	$0, \frac{1}{5}$	3	$\frac{1}{3}, \frac{2}{5}$	-2	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{7}{15}$
$ D \equiv 59 \pmod{60}$							
4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{3}$
2	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{4}{15}, \frac{2}{5}$	1	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{2}{5}$
-1	$\frac{2}{15}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{3}$	4	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 3 \pmod{40}$							
-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{20}$	-2	0, $\frac{1}{5}$	2	$\frac{1}{4}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{4}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{2}{5}$
2	$\frac{3}{20}, \frac{7}{20}$	4	$\frac{7}{20}, \frac{2}{5}$	-2	$\frac{1}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{9}{20}$
2	$\frac{1}{20}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{9}{20}$	-4	0, $\frac{1}{5}$	2	$\frac{1}{4}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{1}{2}$	2	$\frac{1}{4}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 7 \pmod{40}$							
2	0, $\frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{4}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{2}{3}$	$\frac{3}{20}, \frac{7}{20}$
1	$\frac{1}{10}, \frac{3}{20}$	1	$\frac{1}{4}, \frac{7}{20}$	-2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{7}{20}$
2	$\frac{1}{10}, \frac{3}{20}$	2	$\frac{3}{10}, \frac{7}{20}$	2	$\frac{3}{20}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{20}$
-1	0, $\frac{1}{10}$	2	$\frac{1}{4}, \frac{2}{5}$	-1	0, $\frac{1}{5}$	3	$\frac{1}{4}, \frac{2}{5}$
-2	0, $\frac{1}{4}$	4	$\frac{1}{4}, \frac{2}{5}$	2	0, $\frac{1}{4}$	-4	$\frac{3}{10}, \frac{2}{5}$
-2	$\frac{1}{20}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{9}{20}$
2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{1}{4}$	-1	$\frac{3}{10}, \frac{9}{20}$
$\frac{2}{3}$	$\frac{1}{20}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$
1	$\frac{1}{10}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{1}{2}$	-2	$\frac{3}{20}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{1}{2}$
-2	$\frac{3}{20}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	-2	0, $\frac{1}{4}$	-4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{20}, \frac{1}{4}$	2	$\frac{9}{20}, \frac{1}{2}$
1	$\frac{1}{20}, \frac{3}{10}$	1	$\frac{9}{20}, \frac{1}{2}$	2	$\frac{1}{20}, \frac{9}{20}$	4	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 11 \pmod{40}$							
4	0, $\frac{1}{10}$	4	$\frac{1}{5}, \frac{1}{4}$	-4	0, $\frac{1}{5}$	4	$\frac{1}{4}, \frac{3}{10}$
4	$\frac{1}{10}, \frac{3}{20}$	4	$\frac{1}{5}, \frac{7}{20}$	-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{20}$
-4	$\frac{3}{20}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{20}$	-4	0, $\frac{1}{10}$	4	$\frac{1}{4}, \frac{2}{5}$
-2	0, $\frac{1}{5}$	2	$\frac{1}{4}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{3}{20}$	4	$\frac{7}{20}, \frac{2}{5}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{3}{20}, \frac{3}{10}$	4	$\frac{7}{20}, \frac{2}{5}$	2	$\frac{3}{20}, \frac{7}{20}$	4	$\frac{7}{20}, \frac{2}{5}$
-4	$\frac{1}{20}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{9}{20}$	-2	$\frac{1}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{9}{20}$
-4	$\frac{1}{20}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{9}{20}$	4	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{9}{20}$
4	$\frac{1}{20}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{9}{20}$
-4	0, $\frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{1}{4}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{1}{10}, \frac{1}{4}$	-4	$\frac{2}{5}, \frac{1}{2}$
8	$\frac{1}{5}, \frac{1}{4}$	4	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{1}{4}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{8}{3}$	$\frac{1}{4}, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 19 \pmod{40}$							
4	0, $\frac{1}{10}$	4	$\frac{1}{5}, \frac{1}{4}$	-4	0, $\frac{1}{5}$	4	$\frac{1}{4}, \frac{3}{10}$
4	$\frac{1}{10}, \frac{3}{20}$	4	$\frac{1}{5}, \frac{7}{20}$	-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{20}$
-4	$\frac{3}{20}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{20}$	-4	0, $\frac{1}{10}$	4	$\frac{1}{4}, \frac{2}{5}$
-2	0, $\frac{1}{5}$	2	$\frac{1}{4}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{3}{20}$	4	$\frac{7}{20}, \frac{2}{5}$
4	$\frac{3}{20}, \frac{3}{10}$	4	$\frac{7}{20}, \frac{2}{5}$	2	$\frac{3}{20}, \frac{7}{20}$	4	$\frac{7}{20}, \frac{2}{5}$
-4	$\frac{1}{20}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{9}{20}$	-2	$\frac{1}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{9}{20}$
-4	$\frac{1}{20}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{9}{20}$	4	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{9}{20}$
4	$\frac{1}{20}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{9}{20}$
-4	0, $\frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{1}{4}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{1}{10}, \frac{1}{4}$	-4	$\frac{2}{5}, \frac{1}{2}$
8	$\frac{1}{5}, \frac{1}{4}$	4	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{1}{4}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{8}{3}$	$\frac{1}{4}, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 23 \pmod{40}$							
2	0, $\frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{4}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{2}{3}$	$\frac{3}{20}, \frac{7}{20}$
1	$\frac{1}{10}, \frac{3}{20}$	1	$\frac{1}{4}, \frac{7}{20}$	-2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{7}{20}$
2	$\frac{1}{10}, \frac{3}{20}$	2	$\frac{3}{10}, \frac{7}{20}$	2	$\frac{3}{20}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{20}$
-1	0, $\frac{1}{10}$	2	$\frac{1}{4}, \frac{2}{5}$	-1	0, $\frac{1}{5}$	3	$\frac{1}{4}, \frac{2}{5}$
-2	0, $\frac{1}{4}$	4	$\frac{1}{4}, \frac{2}{5}$	2	0, $\frac{1}{4}$	-4	$\frac{3}{10}, \frac{2}{5}$
-2	$\frac{1}{20}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{9}{20}$
2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{1}{4}$	-1	$\frac{3}{10}, \frac{9}{20}$
$\frac{2}{3}$	$\frac{1}{20}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$
1	$\frac{1}{10}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{1}{2}$	-2	$\frac{3}{20}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{1}{2}$
-2	$\frac{3}{20}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	-2	0, $\frac{1}{4}$	-4	$\frac{2}{5}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{5}, \frac{1}{4}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{20}, \frac{1}{4}$	2	$\frac{9}{20}, \frac{1}{2}$
1	$\frac{1}{20}, \frac{3}{10}$	1	$\frac{9}{20}, \frac{1}{2}$	2	$\frac{1}{20}, \frac{9}{20}$	4	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 27 \pmod{40}$							
-2	$\frac{3}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{7}{20}$	-2	0, $\frac{1}{5}$	2	$\frac{1}{4}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{4}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{2}{5}$
2	$\frac{3}{20}, \frac{7}{20}$	4	$\frac{7}{20}, \frac{2}{5}$	-2	$\frac{1}{20}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{9}{20}$
2	$\frac{1}{20}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{9}{20}$	-4	0, $\frac{1}{5}$	2	$\frac{1}{4}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{4}$	2	$\frac{3}{10}, \frac{1}{2}$	2	$\frac{1}{4}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 31 \pmod{40}$							
$\frac{4}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{2}{3}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{4}{5}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{20}$
-1	$\frac{3}{20}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{7}{20}$	1	$\frac{1}{10}, \frac{3}{20}$	1	$\frac{1}{4}, \frac{7}{20}$
$-\frac{4}{3}$	$\frac{3}{20}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{7}{20}$	-2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{7}{20}$
2	$\frac{1}{10}, \frac{3}{20}$	2	$\frac{3}{10}, \frac{7}{20}$	-4	$\frac{3}{20}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{20}$
2	$\frac{3}{20}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{20}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{3}{20}$	$-\frac{4}{3}$	$\frac{7}{20}, \frac{2}{5}$
-4	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{7}{20}, \frac{2}{5}$	4	$\frac{3}{20}, \frac{3}{10}$	4	$\frac{7}{20}, \frac{2}{5}$
-2	$\frac{1}{20}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{9}{20}$	-4	$\frac{1}{20}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{9}{20}$
4	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{1}{4}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{9}{20}$
$\frac{4}{3}$	$\frac{1}{20}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{1}{4}$	-1	$\frac{3}{10}, \frac{9}{20}$
$\frac{2}{3}$	$\frac{1}{20}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{9}{20}$	1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$
4	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{5}$	-2	$\frac{2}{5}, \frac{9}{20}$
$\frac{4}{3}$	$\frac{1}{20}, \frac{1}{4}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{9}{20}$	$\frac{4}{5}$	$\frac{1}{20}, \frac{3}{10}$	$-\frac{4}{5}$	$\frac{2}{5}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{9}{20}$	1	$\frac{1}{10}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{1}{2}$
$-\frac{4}{3}$	$\frac{3}{20}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{7}{20}, \frac{1}{2}$	-2	$\frac{3}{20}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{1}{2}$
-2	$\frac{3}{20}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$\frac{1}{20}, \frac{1}{5}$	4	$\frac{9}{20}, \frac{1}{2}$
2	$\frac{1}{20}, \frac{1}{4}$	2	$\frac{9}{20}, \frac{1}{2}$	1	$\frac{1}{20}, \frac{3}{10}$	1	$\frac{9}{20}, \frac{1}{2}$
$\frac{4}{3}$	$\frac{1}{20}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{9}{20}, \frac{1}{2}$	2	$\frac{1}{20}, \frac{9}{20}$	4	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 39 \pmod{40}$							
$\frac{4}{3}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{2}{3}$	$\frac{3}{20}, \frac{7}{20}$	$\frac{4}{5}$	$\frac{1}{10}, \frac{3}{20}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{20}$
-1	$\frac{3}{20}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{7}{20}$	1	$\frac{1}{10}, \frac{3}{20}$	1	$\frac{1}{4}, \frac{7}{20}$
$-\frac{4}{3}$	$\frac{3}{20}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{7}{20}$	-2	$\frac{3}{20}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{7}{20}$
-4	$\frac{3}{20}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{20}$	2	$\frac{3}{20}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{20}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{4}{3}$	$\frac{1}{10}, \frac{3}{20}$	$-\frac{4}{3}$	$\frac{7}{20}, \frac{2}{5}$	-2	$\frac{3}{20}, \frac{1}{5}$	-2	$\frac{7}{20}, \frac{2}{5}$
-4	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{7}{20}, \frac{2}{5}$	4	$\frac{3}{20}, \frac{3}{10}$	4	$\frac{7}{20}, \frac{2}{5}$
-2	$\frac{1}{20}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{9}{20}$	-4	$\frac{1}{20}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{9}{20}$
4	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{1}{4}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{9}{20}$
2	$\frac{1}{20}, \frac{1}{10}$	-2	$\frac{3}{10}, \frac{9}{20}$	$\frac{4}{3}$	$\frac{1}{20}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{1}{4}$	-1	$\frac{3}{10}, \frac{9}{20}$	$\frac{2}{3}$	$\frac{1}{20}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{9}{20}$	2	$\frac{1}{20}, \frac{1}{5}$	-2	$\frac{2}{5}, \frac{9}{20}$
$\frac{4}{3}$	$\frac{1}{20}, \frac{1}{4}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{9}{20}$	$\frac{4}{5}$	$\frac{1}{20}, \frac{3}{10}$	$-\frac{4}{5}$	$\frac{2}{5}, \frac{9}{20}$
1	$\frac{1}{20}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{9}{20}$	1	$\frac{1}{10}, \frac{3}{20}$	-1	$\frac{7}{20}, \frac{1}{2}$
$-\frac{4}{3}$	$\frac{3}{20}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{7}{20}, \frac{1}{2}$	-2	$\frac{3}{20}, \frac{1}{4}$	-2	$\frac{7}{20}, \frac{1}{2}$
-2	$\frac{3}{20}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$\frac{1}{20}, \frac{1}{5}$	4	$\frac{9}{20}, \frac{1}{2}$
2	$\frac{1}{20}, \frac{1}{4}$	2	$\frac{9}{20}, \frac{1}{2}$	1	$\frac{1}{20}, \frac{3}{10}$	1	$\frac{9}{20}, \frac{1}{2}$
$\frac{4}{3}$	$\frac{1}{20}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{9}{20}, \frac{1}{2}$	2	$\frac{1}{20}, \frac{9}{20}$	4	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 7 \pmod{120}$							
2	$0, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	2	$0, \frac{1}{15}$	2	$\frac{1}{10}, \frac{4}{15}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{4}{15}$	$\frac{2}{3}$	$0, \frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{3}{10}$
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{3}{10}$	-2	$0, \frac{1}{15}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{3}{10}$	-1	$0, \frac{1}{10}$	1	$\frac{1}{10}, \frac{1}{3}$
-2	$0, \frac{1}{10}$	2	$\frac{1}{6}, \frac{1}{3}$	-1	$0, \frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{3}$
-2	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{3}$
2	$0, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{1}{3}$	2	$0, \frac{1}{5}$	-3	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{3}$	1	$0, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	$0, \frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$
-2	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	2	$0, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$
2	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{2}{5}$
1	$0, \frac{3}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{13}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$
-2	$0, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
-2	$0, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	-6	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{1}{2}$
2	$0, \frac{3}{10}$	2	$\frac{1}{3}, \frac{1}{2}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	$0, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	$0, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 11 \pmod{120}$							
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{1}{10}, \frac{4}{15}$
2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{3}{10}$	4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{3}{10}$
-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{1}{3}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{7}{30}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{1}{5}$	1	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{3}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{1}{3}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{2}{5}$
-4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{2}{15}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{2}{5}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{3}$	4	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{13}{30}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{13}{30}$
4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{13}{30}$
4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{7}{30}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{7}{30}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{2}{15}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{1}{30}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{3}{10}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{7}{15}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{2}{15}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-8	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	2	$\frac{1}{3}, \frac{1}{2}$
8	$0, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	8	$0, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 19 \pmod{120}$							
8	$0, \frac{1}{10}$	-4	$\frac{1}{6}, \frac{1}{5}$	-8	$0, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$
-4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{3}{10}$	-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{1}{3}$
4	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
$-\frac{4}{3}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{8}{3}$	$\frac{1}{5}, \frac{1}{3}$	-4	$0, \frac{1}{5}$	4	$\frac{3}{10}, \frac{1}{3}$
-4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$
-4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$
-8	$0, \frac{1}{10}$	4	$\frac{1}{6}, \frac{2}{5}$	8	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{2}{5}$
-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{2}{5}$
4	$0, \frac{1}{10}$	4	$\frac{1}{3}, \frac{2}{5}$	-4	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{1}{3}, \frac{2}{5}$
4	$0, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{13}{30}$	4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{7}{30}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{7}{15}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{2}{5}$	4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	8	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{1}{2}$	-4	0, $\frac{1}{5}$	4	$\frac{1}{3}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{1}{3}$	-4	$\frac{1}{3}, \frac{1}{2}$
-8	0, $\frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	0, $\frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
8	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	$\frac{8}{3}$	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{8}{3}$	$\frac{1}{5}, \frac{1}{3}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{1}{3}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 23 \pmod{120}$							
1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$
2	0, $\frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{15}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{4}{15}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{15}, \frac{4}{15}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$	$\frac{2}{3}$	0, $\frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{3}{10}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{3}{10}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$
2	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{3}$
1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{11}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{11}{30}$	$\frac{4}{5}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{2}{5}$	$\frac{7}{30}, \frac{11}{30}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{4}{15}, \frac{11}{30}$
1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{11}{30}$	-1	0, $\frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$
-2	0, $\frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	2	0, $\frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$
-1	0, $\frac{1}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	-2	0, $\frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{4}{15}, \frac{13}{30}$	2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{13}{30}$
$\frac{2}{5}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{4}{15}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	3	$\frac{1}{15}, \frac{7}{30}$	3	$\frac{15}{30}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	-1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{13}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{11}{30}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{4}{5}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{2}{5}$	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{1}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$	2	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{2}$
				2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{11}{30}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	0, $\frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	0, $\frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{10}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{1}{3}$	-2	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{11}{30}$	-2	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{4}{15}, \frac{13}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{7}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 31 \pmod{120}$							
2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$
4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{4}{15}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{4}{15}$
$-\frac{4}{3}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{2}{15}, \frac{3}{10}$
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{3}{10}$	4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{3}{10}$	-1	0, $\frac{1}{10}$	1	$\frac{1}{10}, \frac{1}{3}$
-2	0, $\frac{1}{10}$	2	$\frac{1}{6}, \frac{1}{3}$	$-\frac{4}{3}$	0, $\frac{1}{10}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{1}{3}$
-4	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	2	0, $\frac{1}{6}$	-2	$\frac{3}{10}, \frac{1}{3}$
4	0, $\frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{3}$	1	0, $\frac{3}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$
-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{11}{30}$
$-\frac{4}{3}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{11}{30}$	-4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{7}{30}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{11}{30}$
-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{11}{30}$
4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{2}{15}, \frac{2}{5}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{7}{30}, \frac{2}{5}$	-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{4}{15}, \frac{2}{5}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{4}{15}, \frac{2}{5}$
-4	$0, \frac{1}{10}$	-4	$\frac{1}{3}, \frac{2}{5}$	4	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
$\frac{4}{3}$	$0, \frac{3}{10}$	$\frac{4}{3}$	$\frac{1}{3}, \frac{2}{5}$	-4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{13}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{13}{30}$	1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{2}{15}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{10}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{7}{30}, \frac{3}{10}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{2}{15}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{1}{5}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{2}{15}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{2}{15}, \frac{3}{10}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-2	$0, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	-4	$\frac{1}{3}, \frac{1}{2}$	2	$0, \frac{3}{10}$	2	$\frac{1}{3}, \frac{1}{2}$
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{7}{30}, \frac{2}{5}$	4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{3}{10}$	2	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{2}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 43 \pmod{120}$							
-10	$0, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	-10	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$
-6	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	-6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$
6	$\frac{1}{6}, \frac{1}{5}$	10	$\frac{1}{5}, \frac{3}{10}$	2	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{1}{5}, \frac{1}{3}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{10}{3}$	$\frac{1}{5}, \frac{1}{3}$	-4	$0, \frac{1}{5}$	3	$\frac{3}{10}, \frac{1}{3}$
-4	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{1}{6}, \frac{1}{5}$	5	$\frac{3}{10}, \frac{1}{3}$
4	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{3}{10}, \frac{1}{3}$	10	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$
10	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	6	$0, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$
6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$	$-\frac{3}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{5}{2}$	$\frac{3}{10}, \frac{2}{5}$
-6	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{2}{5}$	-2	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	5	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
$\frac{2}{3}$	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{3}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
6	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
$-\frac{3}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{5}{2}$	$\frac{1}{5}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	$\frac{10}{3}$	$\frac{3}{10}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	6	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{1}{3}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	10	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{1}{2}$	-6	$0, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
-6	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	6	$\frac{1}{6}, \frac{1}{5}$	-10	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{1}{6}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$	3	$0, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
3	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
3	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{1}{2}$	3	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{3}{2}$	$\frac{1}{6}, \frac{2}{5}$	$-\frac{5}{2}$	$\frac{2}{5}, \frac{1}{2}$	6	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 47 \pmod{120}$							
1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$0, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{15}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{4}{15}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{15}, \frac{4}{15}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$	$\frac{2}{3}, 0, \frac{1}{6}$	$\frac{4}{3}, \frac{1}{5}, \frac{3}{10}$		
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{3}{10}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{3}$
2	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$
1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{11}{30}$	$\frac{4}{5}, \frac{1}{30}, \frac{2}{15}$	$\frac{2}{5}, \frac{7}{30}, \frac{11}{30}$		
4	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{11}{30}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{2}{3}$	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$	-1	$0, \frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$
1	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{11}{30}$	2	$0, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$
-2	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	-2	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-1	$0, \frac{1}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$	2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{13}{30}$
1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{4}{15}, \frac{13}{30}$	$\frac{2}{5}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{2}{5}$	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{30}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{4}{15}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{13}{30}$	4	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{11}{30}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{11}{30}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{4}{5}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{2}{5}$	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$				

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{2}{15}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{2}$	2	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{11}{30}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	0, $\frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	-2	0, $\frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{1}{3}$	-2	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{11}{30}$	-2	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{4}{15}, \frac{13}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{7}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 59 \pmod{120}$							
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{1}{10}, \frac{4}{15}$
2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{3}{10}$	4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{3}{10}$
-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{1}{3}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$	4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{7}{30}, \frac{11}{30}$
-2	$\frac{2}{15}, \frac{1}{5}$	1	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{3}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{1}{3}, \frac{11}{30}$	4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{4}{15}, \frac{2}{5}$
-4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{4}{15}, \frac{2}{5}$
-1	$\frac{1}{30}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{3}$	4	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{13}{30}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{13}{30}$
4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{13}{30}$
4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{7}{30}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{7}{30}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{2}{15}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{1}{30}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{3}{10}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{3}{10}$	2	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-8	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	2	$\frac{1}{3}, \frac{1}{2}$
8	$0, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	8	$0, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 67 \pmod{120}$							
-10	$0, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	-10	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$
-6	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	-6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$
6	$\frac{1}{6}, \frac{1}{5}$	10	$\frac{1}{5}, \frac{3}{10}$	2	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{1}{5}, \frac{1}{3}$
$-\frac{2}{3}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{10}{3}$	$\frac{1}{5}, \frac{1}{3}$	-4	$0, \frac{1}{5}$	3	$\frac{3}{10}, \frac{1}{3}$
-4	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{1}{6}, \frac{1}{5}$	5	$\frac{3}{10}, \frac{1}{3}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{3}{10}, \frac{1}{3}$	10	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$
10	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	6	$0, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$
6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$	$-\frac{3}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{5}{2}$	$\frac{3}{10}, \frac{2}{5}$
-6	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{2}{5}$	-2	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{6}, \frac{1}{5}$	5	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
$\frac{2}{3}$	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{3}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
6	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
$-\frac{3}{2}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{5}{2}$	$\frac{1}{5}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	$\frac{10}{3}$	$\frac{3}{10}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	6	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{1}{3}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	10	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{1}{2}$	-6	$0, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
-6	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	6	$\frac{1}{6}, \frac{1}{5}$	-10	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{1}{6}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$	3	$0, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
3	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
3	$\frac{1}{5}, \frac{1}{3}$	-1	$\frac{2}{5}, \frac{1}{2}$	3	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{3}{2}$	$\frac{1}{6}, \frac{2}{5}$	$-\frac{5}{2}$	$\frac{2}{5}, \frac{1}{2}$	6	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 71 \pmod{120}$							
1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{15}$	$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{15}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{15}, \frac{4}{15}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{1}{5}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{3}{10}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{11}{30}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{11}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{6}$	$-\frac{4}{3}$	$\frac{1}{5}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{5}$	-2	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{11}{30}$	$\frac{4}{5}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{2}{5}$	$\frac{7}{30}, \frac{11}{30}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{1}{5}$	-1	$\frac{7}{30}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{4}{15}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{6}$	$-\frac{2}{3}$	$\frac{3}{10}, \frac{11}{30}$
$\frac{4}{5}$	$\frac{1}{30}, \frac{1}{5}$	$-\frac{4}{5}$	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{3}{10}$	$-\frac{1}{2}$	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{3}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{1}{3}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{11}{30}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{2}{30}, \frac{2}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{4}{15}, \frac{2}{5}$	$\frac{4}{5}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{4}{5}$	$\frac{4}{15}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{5}$	$\frac{1}{30}, \frac{1}{6}$	$\frac{4}{5}$	$\frac{11}{30}, \frac{2}{5}$	1	$\frac{1}{30}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{2}{5}$	$\frac{4}{7}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{7}$	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{5}$	$\frac{1}{30}, \frac{1}{3}$	$\frac{4}{5}$	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	3	$\frac{1}{30}, \frac{2}{30}$	3	$\frac{2}{30}, \frac{13}{5}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{7}{30}, \frac{13}{30}$	2	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{4}{15}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{13}{30}$	$\frac{2}{5}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{4}{15}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$	2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{3}{10}, \frac{13}{30}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{2}{3}$	$\frac{1}{3}, \frac{13}{30}$
1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{1}{3}, \frac{13}{30}$
-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{13}{30}$	-1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{11}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{4}{5}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{2}{5}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{4}{3}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$	$\frac{4}{5}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{2}{5}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	1	$\frac{1}{5}, \frac{7}{30}$	1	$\frac{2}{5}, \frac{13}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{7}{30}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{7}{30}, \frac{2}{5}$	2	$\frac{2}{5}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{1}{5}, \frac{7}{15}$	$\frac{4}{5}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{4}{15}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{2}$
1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{2}$	4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{6}{30}$	1	$\frac{11}{30}, \frac{1}{2}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{1}{2}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{11}{30}$	2	$\frac{11}{30}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	$-\frac{2}{3}$	$\frac{13}{30}, \frac{1}{2}$
1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{30}$	$-\frac{4}{5}$	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{13}{30}, \frac{1}{2}$
$-\frac{4}{3}$	$\frac{7}{30}, \frac{2}{5}$	$-\frac{4}{3}$	$\frac{13}{30}, \frac{1}{2}$	-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{7}{15}, \frac{1}{2}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{2}{15}, \frac{1}{3}$	-2	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{4}{15}, \frac{11}{30}$	-2	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$
1	$\frac{4}{15}, \frac{13}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{7}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 79 \pmod{120}$							
2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$
4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-1	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{4}{15}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{4}{15}$
$-\frac{4}{3}$	$\frac{1}{15}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{2}{15}, \frac{3}{10}$
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{3}{10}$	1	$\frac{1}{15}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{3}{10}$
-1	0, $\frac{1}{10}$	1	$\frac{1}{10}, \frac{1}{3}$	-2	0, $\frac{1}{10}$	2	$\frac{1}{6}, \frac{1}{3}$
$-\frac{4}{3}$	0, $\frac{1}{10}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{1}{3}$	-4	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
2	0, $\frac{1}{6}$	-2	$\frac{3}{10}, \frac{1}{3}$	4	0, $\frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{3}$
1	0, $\frac{3}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{11}{30}$	$-\frac{4}{3}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	1	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{11}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{11}{30}$	4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{11}{30}$
2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{7}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{4}{15}, \frac{2}{5}$
-4	0, $\frac{1}{10}$	-4	$\frac{1}{3}, \frac{2}{5}$	4	0, $\frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
$\frac{4}{3}$	0, $\frac{3}{10}$	$\frac{4}{3}$	$\frac{1}{3}, \frac{2}{5}$	-4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{13}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{13}{30}$	1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{13}{30}$
2	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{13}{30}$
2	$\frac{2}{15}, \frac{3}{10}$	1	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{10}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{7}{30}, \frac{3}{10}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{2}{15}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{1}{5}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{3}{30}$	-2	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{2}{15}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{2}{15}, \frac{3}{10}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-2	0, $\frac{1}{10}$	-2	$\frac{1}{3}, \frac{1}{2}$
-4	0, $\frac{1}{5}$	-4	$\frac{1}{3}, \frac{1}{2}$	2	0, $\frac{3}{10}$	2	$\frac{1}{3}, \frac{1}{2}$
-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{7}{30}, \frac{2}{5}$	4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{2}{15}, \frac{3}{10}$	2	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{2}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 83 \pmod{120}$							
2	0, $\frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$
6	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$
-6	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{1}{5}, \frac{3}{10}$	2	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{1}{3}$	-4	$0, \frac{1}{5}$	6	$\frac{3}{10}, \frac{1}{3}$
-4	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{3}$
4	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{11}{30}$
-4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{3}, \frac{11}{30}$
-2	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$
-6	$0, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$	-6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$
-3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{2}{5}$	6	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{2}{5}$
-2	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{2}{5}$
2	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{3}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{13}{30}$	-2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-6	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	-6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
-3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	$\frac{2}{3}$	$\frac{3}{10}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$0, \frac{1}{5}$	3	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{1}{3}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{1}{2}$	6	$0, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	-6	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{1}{2}$
-6	$\frac{1}{6}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$	6	$0, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	6	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	3	$\frac{1}{6}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$
3	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 91 \pmod{120}$							
8	$0, \frac{1}{10}$	-4	$\frac{1}{6}, \frac{1}{5}$	-8	$0, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$
-4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{3}{10}$	-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{1}{3}$
4	$0, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
$-\frac{4}{3}$	$\frac{1}{6}, \frac{1}{5}$	$\frac{8}{3}$	$\frac{1}{5}, \frac{1}{3}$	-4	$0, \frac{1}{5}$	4	$\frac{3}{10}, \frac{1}{3}$
-4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{30}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{11}{30}$
-4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$
-8	$0, \frac{1}{10}$	4	$\frac{1}{6}, \frac{2}{5}$	8	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{2}{5}$
-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{2}{5}$
4	$0, \frac{1}{10}$	4	$\frac{1}{3}, \frac{2}{5}$	-4	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{1}{3}, \frac{2}{5}$
4	$0, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{13}{30}$	4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{7}{30}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{7}{30}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{11}{30}, \frac{7}{15}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{2}{5}$	4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	8	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{1}{2}$	-4	0, $\frac{1}{5}$	4	$\frac{1}{3}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{1}{3}$	-4	$\frac{1}{3}, \frac{1}{2}$
-8	0, $\frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	0, $\frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
8	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
$\frac{8}{3}$	$\frac{1}{5}, \frac{1}{3}$	$\frac{-4}{3}$	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	8	$\frac{1}{3}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{1}{2}$
$ D \equiv 103 \pmod{120}$							
2	0, $\frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	2	0, $\frac{1}{15}$	2	$\frac{1}{10}, \frac{4}{15}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{4}{15}$	$\frac{2}{3}$	0, $\frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{3}{10}$
-2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{7}{30}, \frac{3}{10}$	-2	0, $\frac{1}{15}$	2	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{3}{10}$	-1	0, $\frac{1}{10}$	1	$\frac{1}{10}, \frac{1}{3}$
-2	0, $\frac{1}{10}$	2	$\frac{1}{6}, \frac{1}{3}$	-1	0, $\frac{1}{10}$	2	$\frac{1}{5}, \frac{1}{3}$
-2	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{5}, \frac{1}{3}$
2	0, $\frac{1}{6}$	-2	$\frac{3}{10}, \frac{1}{3}$	2	0, $\frac{1}{5}$	-3	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{1}{5}$	-1	$\frac{3}{10}, \frac{1}{3}$	1	0, $\frac{3}{10}$	-1	$\frac{3}{10}, \frac{1}{3}$
2	$\frac{1}{5}, \frac{3}{10}$	1	$\frac{3}{10}, \frac{1}{3}$	-1	$\frac{1}{30}, \frac{1}{10}$	1	$\frac{1}{10}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$	-1	0, $\frac{1}{10}$	2	$\frac{1}{6}, \frac{2}{5}$
-2	0, $\frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	2	0, $\frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$
2	0, $\frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{2}{5}$
1	0, $\frac{3}{10}$	2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{3}{10}$	-2	$\frac{1}{3}, \frac{2}{5}$
1	$\frac{1}{10}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{2}{5}$	2	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{7}{30}, \frac{13}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{13}{30}$
1	$\frac{7}{30}, \frac{3}{10}$	-1	$\frac{3}{10}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$
-2	0, $\frac{2}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{7}{15}$	2	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
-2	0, $\frac{1}{10}$	-2	$\frac{1}{3}, \frac{1}{2}$	-4	0, $\frac{1}{5}$	-6	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{1}{3}, \frac{1}{2}$
2	0, $\frac{3}{10}$	2	$\frac{1}{3}, \frac{1}{2}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{3}{10}$	$-\frac{2}{3}$	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{1}{2}$	-2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{3}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	-2	0, $\frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	-1	0, $\frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	-1	$\frac{3}{10}, \frac{1}{3}$	-2	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 107 \pmod{120}$							
2	0, $\frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{1}{5}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$
6	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$
-6	$\frac{1}{6}, \frac{1}{5}$	-2	$\frac{1}{5}, \frac{3}{10}$	2	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{1}{5}, \frac{1}{3}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{1}{3}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{1}{3}$	-4	0, $\frac{1}{5}$	6	$\frac{3}{10}, \frac{1}{3}$
-4	$\frac{1}{10}, \frac{1}{5}$	6	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{3}{10}, \frac{1}{3}$
4	$\frac{1}{5}, \frac{3}{10}$	6	$\frac{3}{10}, \frac{1}{3}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{11}{30}$
-4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{11}{30}$
-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{2}{15}$	2	$\frac{1}{3}, \frac{11}{30}$
-2	0, $\frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{2}{5}$
-6	0, $\frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$	-6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{2}{5}$
-3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{3}{10}, \frac{2}{5}$	6	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{2}{5}$
-2	0, $\frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{2}{5}$
-1	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{1}{3}, \frac{2}{5}$
2	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{3}, \frac{2}{5}$	1	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{1}{3}, \frac{2}{5}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$	-2	$\frac{3}{10}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{2}{5}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$
-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{4}{15}, \frac{13}{30}$	-2	$\frac{2}{15}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{3}$	-2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{13}{30}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{4}{15}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{7}{30}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{3}$	2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{13}{30}, \frac{7}{15}$
-6	0, $\frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$	-6	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{1}{2}$
-3	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{5}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	$\frac{2}{3}$	$\frac{3}{10}, \frac{1}{2}$
-4	0, $\frac{1}{5}$	3	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{1}{5}$	3	$\frac{1}{3}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	1	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{3}{10}$	3	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{1}{2}$	6	0, $\frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	-6	$\frac{1}{6}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{1}{2}$
-6	$\frac{1}{6}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{1}{2}$	6	0, $\frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	6	$\frac{1}{5}, \frac{1}{3}$	2	$\frac{2}{5}, \frac{1}{2}$
6	$\frac{3}{10}, \frac{1}{3}$	-4	$\frac{2}{5}, \frac{1}{2}$	3	$\frac{1}{6}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$
3	$\frac{1}{3}, \frac{2}{5}$	-1	$\frac{2}{5}, \frac{1}{2}$				
$ D \equiv 119 \pmod{120}$							
1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{-4}{3}$	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{15}, \frac{7}{30}$
1	$\frac{1}{15}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{1}{15}, \frac{2}{15}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{4}{15}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{2}{15}, \frac{4}{15}$
1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{1}{5}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{-4}{3}$	$\frac{1}{5}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{4}{15}$	2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{7}{30}, \frac{3}{10}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{4}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{4}{15}, \frac{3}{10}$
1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{4}{15}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{4}{15}, \frac{3}{10}$
2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{3}$
3	$\frac{1}{15}, \frac{2}{15}$	3	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{3}$
1	$\frac{1}{15}, \frac{1}{15}$	-1	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{6}, \frac{11}{30}$
2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{3}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-1	$\frac{1}{6}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{5}$	-2	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{30}, \frac{1}{6}$	$-\frac{4}{3}$	$\frac{1}{5}, \frac{11}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	$-\frac{2}{5}$	$\frac{7}{30}, \frac{11}{30}$
3	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{11}{30}$	5	$\frac{1}{30}, \frac{1}{15}$	-1	$\frac{7}{30}, \frac{11}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{1}{5}$	2	$\frac{4}{15}, \frac{11}{30}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{4}{15}, \frac{11}{30}$	1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{1}{15}$	$-\frac{4}{3}$	$\frac{4}{15}, \frac{11}{30}$	3	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{3}{10}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{2}{15}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{15}, \frac{1}{15}$	-2	$\frac{1}{10}, \frac{11}{30}$
$\frac{4}{5}$	$\frac{1}{30}, \frac{1}{5}$	$-\frac{4}{5}$	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{1}{3}, \frac{11}{30}$
$\frac{1}{2}$	$\frac{1}{30}, \frac{1}{10}$	-1	$\frac{1}{3}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{5}$	$-\frac{4}{3}$	$\frac{1}{3}, \frac{11}{30}$
1	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{1}{3}, \frac{11}{30}$	1	$\frac{1}{30}, \frac{1}{3}$	-1	$\frac{1}{3}, \frac{11}{30}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	-4	$\frac{2}{15}, \frac{5}{5}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{7}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{4}{15}, \frac{2}{5}$	$\frac{4}{5}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{4}{5}$	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{4}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{10}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{6}$	3	$\frac{4}{15}, \frac{2}{5}$	1	$\frac{1}{30}, \frac{1}{5}$	1	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{5}$	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{5}$	$\frac{1}{30}, \frac{1}{3}$	4	$\frac{11}{30}, \frac{2}{5}$	3	$\frac{1}{30}, \frac{2}{30}$	-2	$\frac{2}{15}, \frac{13}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{7}{15}$	1	$\frac{7}{30}, \frac{13}{30}$
1	$\frac{1}{10}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	1	$\frac{1}{30}, \frac{1}{15}$	1	$\frac{4}{15}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{4}{15}, \frac{13}{30}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{4}{15}, \frac{13}{30}$
$\frac{2}{5}$	$\frac{1}{30}, \frac{7}{30}$	5	$\frac{4}{15}, \frac{13}{30}$	3	$\frac{1}{15}, \frac{7}{30}$	3	$\frac{4}{15}, \frac{13}{30}$
2	$\frac{1}{15}, \frac{2}{15}$	-2	$\frac{3}{10}, \frac{13}{30}$	1	$\frac{1}{10}, \frac{7}{30}$	1	$\frac{3}{10}, \frac{13}{30}$
2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{13}{30}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{13}{30}$
$\frac{2}{3}$	$\frac{1}{10}, \frac{7}{30}$	2	$\frac{1}{3}, \frac{13}{30}$	1	$\frac{1}{6}, \frac{7}{30}$	1	$\frac{1}{3}, \frac{13}{30}$
$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{1}{3}, \frac{13}{30}$	-2	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{3}, \frac{13}{30}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-1	$\frac{7}{30}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{13}{30}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	-2	$\frac{11}{30}, \frac{13}{30}$	$\frac{1}{2}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{1}{2}$	$\frac{11}{30}, \frac{13}{30}$
$\frac{4}{5}$	$\frac{1}{15}, \frac{7}{30}$	$\frac{2}{5}$	$\frac{11}{30}, \frac{13}{30}$	$\frac{4}{3}$	$\frac{2}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$	$\frac{4}{5}$	$\frac{1}{10}, \frac{7}{30}$	$\frac{4}{5}$	$\frac{2}{5}, \frac{13}{30}$
$\frac{4}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	1	$\frac{1}{5}, \frac{7}{30}$	1	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{7}{30}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{13}{30}$	$-\frac{4}{3}$	$\frac{7}{30}, \frac{1}{3}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
-2	$\frac{7}{30}, \frac{2}{5}$	2	$\frac{2}{5}, \frac{13}{30}$	-2	$\frac{1}{30}, \frac{1}{15}$	2	$\frac{1}{10}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{2}{15}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{6}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{1}{15}$	4	$\frac{1}{5}, \frac{7}{15}$	$\frac{4}{5}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{5}$	$\frac{1}{5}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{2}{15}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	2	$\frac{3}{10}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{7}{30}$	-1	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{3}{10}$	-2	$\frac{3}{10}, \frac{7}{15}$	1	$\frac{1}{10}, \frac{2}{15}$	1	$\frac{1}{3}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{1}{3}, \frac{7}{15}$
2	$\frac{1}{15}, \frac{7}{30}$	-2	$\frac{1}{3}, \frac{7}{15}$	2	$\frac{1}{15}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{7}{15}$
$\frac{2}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{10}, \frac{4}{15}$	1	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{4}{15}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{2}{3}$	$\frac{1}{15}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{4}{15}, \frac{1}{3}$	2	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{2}{5}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{4}{15}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{15}$	-2	$\frac{2}{15}, \frac{1}{2}$	1	$\frac{1}{15}, \frac{2}{15}$	-1	$\frac{7}{30}, \frac{1}{2}$
1	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{4}{15}, \frac{1}{2}$
4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{1}{6}$	1	$\frac{11}{30}, \frac{1}{2}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{1}{5}$	$\frac{4}{3}$	$\frac{11}{30}, \frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{2}{3}$	$\frac{11}{30}, \frac{1}{2}$

Table 5.4: $e = 5$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{1}{30}, \frac{1}{3}$	1	$\frac{11}{30}, \frac{1}{2}$	1	$\frac{1}{30}, \frac{11}{30}$	2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	1	$\frac{1}{6}, \frac{7}{30}$	-1	$\frac{13}{30}, \frac{1}{2}$
3	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{7}{30}$	-5	$\frac{13}{30}, \frac{1}{2}$	-4	$\frac{7}{30}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-1	$\frac{7}{30}, \frac{1}{3}$	-1	$\frac{13}{30}, \frac{1}{2}$	1	$\frac{1}{10}, \frac{2}{15}$	-1	$\frac{7}{15}, \frac{1}{2}$
-1	$\frac{7}{30}, \frac{13}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{15}, \frac{7}{30}$	2	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{7}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{4}{15}, \frac{11}{30}$	-2	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{2}{15}, \frac{1}{3}$	-2	$\frac{7}{15}, \frac{1}{2}$	1	$\frac{4}{15}, \frac{13}{30}$	-1	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{7}{15}, \frac{1}{2}$	-2	$\frac{2}{15}, \frac{7}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$
2	$\frac{11}{30}, \frac{13}{30}$	-4	$\frac{7}{15}, \frac{1}{2}$				
3	$\frac{11}{30}, \frac{13}{30}$	3	$\frac{7}{15}, \frac{1}{2}$				

For the case $e = 7$ there were 201 formulae, given below.

Table 5.5: Two Term Dirichlet Type Formulae, $e = 7$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{28}$							
2	$0, \frac{1}{7}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 5 \pmod{28}$							
2	$0, \frac{1}{7}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 9 \pmod{28}$							
2	$0, \frac{1}{7}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 13 \pmod{28}$							
2	$0, \frac{1}{7}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 17 \pmod{28}$							
2	$0, \frac{1}{7}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 25 \pmod{28}$							
2	$0, \frac{1}{7}$	-2	$\frac{2}{7}, \frac{3}{7}$				
$ D \equiv 1 \pmod{56}$							
-6	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{3}{7}$
-2	$\frac{1}{14}, \frac{2}{7}$	-4	$\frac{2}{7}, \frac{3}{7}$	4	$0, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{3}{7}$
-4	$\frac{1}{7}, \frac{5}{14}$	-2	$\frac{5}{14}, \frac{3}{7}$	-4	$\frac{3}{14}, \frac{5}{14}$	-6	$\frac{5}{14}, \frac{3}{7}$

Table 5.5: $e = 7$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{1}{2}$				
$ D \equiv 5 \pmod{56}$							
4	$0, \frac{1}{7}$	2	$\frac{1}{7}, \frac{3}{14}$	-2	$0, \frac{1}{14}$	2	$\frac{1}{7}, \frac{5}{14}$
2	$0, \frac{3}{14}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{1}{7}, \frac{3}{14}$	4	$\frac{2}{7}, \frac{5}{14}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{3}{7}$	2	$0, \frac{1}{7}$	-2	$\frac{3}{14}, \frac{1}{2}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{1}{2}$	-2	$0, \frac{1}{14}$	-2	$\frac{2}{7}, \frac{1}{2}$
1	$\frac{1}{14}, \frac{3}{14}$	-1	$\frac{5}{14}, \frac{1}{2}$	-2	$\frac{3}{14}, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{1}{2}$
2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$	2	$0, \frac{5}{14}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 9 \pmod{56}$							
-6	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{3}{7}$
-2	$\frac{1}{14}, \frac{2}{7}$	-4	$\frac{2}{7}, \frac{3}{7}$	4	$0, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{3}{7}$
-4	$\frac{1}{7}, \frac{5}{14}$	-2	$\frac{5}{14}, \frac{3}{7}$	-4	$\frac{3}{14}, \frac{5}{14}$	-6	$\frac{5}{14}, \frac{3}{7}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{1}{2}$				
$ D \equiv 13 \pmod{56}$							
4	$0, \frac{1}{7}$	2	$\frac{1}{7}, \frac{3}{14}$	-2	$0, \frac{1}{14}$	2	$\frac{1}{7}, \frac{5}{14}$
2	$\frac{1}{7}, \frac{3}{14}$	4	$\frac{2}{7}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{3}{7}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{1}{2}$	-2	$0, \frac{1}{14}$	-2	$\frac{2}{7}, \frac{1}{2}$
1	$\frac{1}{14}, \frac{3}{14}$	-1	$\frac{5}{14}, \frac{1}{2}$	-2	$\frac{3}{14}, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{1}{2}$
2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$	2	$0, \frac{5}{14}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 17 \pmod{56}$							
-6	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{3}{7}$
-2	$\frac{1}{14}, \frac{2}{7}$	-4	$\frac{2}{7}, \frac{3}{7}$	4	$0, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{3}{7}$
-4	$\frac{1}{7}, \frac{5}{14}$	-2	$\frac{5}{14}, \frac{3}{7}$	-4	$\frac{3}{14}, \frac{5}{14}$	-6	$\frac{5}{14}, \frac{3}{7}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{1}{2}$				
$ D \equiv 25 \pmod{56}$							
-6	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{3}{7}$
-2	$\frac{1}{14}, \frac{2}{7}$	-4	$\frac{2}{7}, \frac{3}{7}$	4	$0, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{3}{7}$
-4	$\frac{1}{7}, \frac{5}{14}$	-2	$\frac{5}{14}, \frac{3}{7}$	-4	$\frac{3}{14}, \frac{5}{14}$	-6	$\frac{5}{14}, \frac{3}{7}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{1}{2}$				
$ D \equiv 29 \pmod{56}$							
4	$0, \frac{1}{7}$	2	$\frac{1}{7}, \frac{3}{14}$	-2	$0, \frac{1}{14}$	2	$\frac{1}{7}, \frac{5}{14}$
2	$\frac{1}{7}, \frac{3}{14}$	4	$\frac{2}{7}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{3}{7}$

Table 5.5: $e = 7$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{1}{2}$	-2	$0, \frac{1}{14}$	-2	$\frac{2}{7}, \frac{1}{2}$
1	$\frac{1}{14}, \frac{3}{14}$	-1	$\frac{5}{14}, \frac{1}{2}$	-2	$\frac{3}{14}, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{1}{2}$
2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$	2	$0, \frac{5}{14}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 33 \pmod{56}$							
-6	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{3}{7}$
-2	$\frac{1}{14}, \frac{2}{7}$	-4	$\frac{2}{7}, \frac{3}{7}$	4	$0, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{3}{7}$
-4	$\frac{1}{7}, \frac{5}{14}$	-2	$\frac{5}{14}, \frac{3}{7}$	-4	$\frac{3}{14}, \frac{5}{14}$	-6	$\frac{5}{14}, \frac{3}{7}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{1}{2}$				
$ D \equiv 37 \pmod{56}$							
4	$0, \frac{1}{7}$	2	$\frac{1}{7}, \frac{3}{14}$	-2	$0, \frac{1}{14}$	2	$\frac{1}{7}, \frac{5}{14}$
2	$0, \frac{3}{14}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{1}{7}, \frac{3}{14}$	4	$\frac{2}{7}, \frac{5}{14}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{3}{7}$	2	$0, \frac{1}{7}$	-2	$\frac{3}{14}, \frac{1}{2}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{1}{2}$	-2	$0, \frac{1}{14}$	-2	$\frac{2}{7}, \frac{1}{2}$
1	$\frac{1}{14}, \frac{3}{14}$	-1	$\frac{5}{14}, \frac{1}{2}$	-2	$\frac{3}{14}, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{1}{2}$
2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$	2	$0, \frac{5}{14}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 41 \pmod{56}$							
-6	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{5}{14}$	-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{3}{7}$
-2	$\frac{1}{14}, \frac{2}{7}$	-4	$\frac{2}{7}, \frac{3}{7}$	4	$0, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{3}{7}$
-4	$\frac{1}{7}, \frac{5}{14}$	-2	$\frac{5}{14}, \frac{3}{7}$	-4	$\frac{3}{14}, \frac{5}{14}$	-6	$\frac{5}{14}, \frac{3}{7}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{1}{2}$				
$ D \equiv 45 \pmod{56}$							
4	$0, \frac{1}{7}$	2	$\frac{1}{7}, \frac{3}{14}$	-2	$0, \frac{1}{14}$	2	$\frac{1}{7}, \frac{5}{14}$
2	$0, \frac{3}{14}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{1}{7}, \frac{3}{14}$	4	$\frac{2}{7}, \frac{5}{14}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{3}{7}$	2	$0, \frac{1}{7}$	-2	$\frac{3}{14}, \frac{1}{2}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{1}{2}$	-2	$0, \frac{1}{14}$	-2	$\frac{2}{7}, \frac{1}{2}$
1	$\frac{1}{14}, \frac{3}{14}$	-1	$\frac{5}{14}, \frac{1}{2}$	-2	$\frac{3}{14}, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{1}{2}$
2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$	2	$0, \frac{5}{14}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 53 \pmod{56}$							
4	$0, \frac{1}{7}$	2	$\frac{1}{7}, \frac{3}{14}$	-2	$0, \frac{1}{14}$	2	$\frac{1}{7}, \frac{5}{14}$
2	$0, \frac{3}{14}$	2	$\frac{2}{7}, \frac{5}{14}$	2	$\frac{1}{7}, \frac{3}{14}$	4	$\frac{2}{7}, \frac{5}{14}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{2}{7}, \frac{3}{7}$	2	$0, \frac{1}{7}$	-2	$\frac{3}{14}, \frac{1}{2}$
-2	$\frac{1}{7}, \frac{3}{14}$	-4	$\frac{3}{14}, \frac{1}{2}$	-2	$0, \frac{1}{14}$	-2	$\frac{2}{7}, \frac{1}{2}$

Table 5.5: $e = 7$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
1	$\frac{1}{14}, \frac{3}{14}$	-1	$\frac{5}{14}, \frac{1}{2}$	-2	$\frac{3}{14}, \frac{2}{7}$	-2	$\frac{5}{14}, \frac{1}{2}$
2	$\frac{1}{14}, \frac{3}{14}$	-2	$\frac{3}{7}, \frac{1}{2}$	2	0, $\frac{5}{14}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 1 \pmod{84}$							
2	0, $\frac{2}{21}$	-2	$\frac{1}{7}, \frac{5}{21}$	2	0, $\frac{1}{21}$	-2	$\frac{4}{21}, \frac{5}{21}$
2	0, $\frac{1}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$	2	0, $\frac{4}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$
2	0, $\frac{2}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$				
$ D \equiv 13 \pmod{84}$							
2	0, $\frac{2}{21}$	-2	$\frac{1}{7}, \frac{5}{21}$	2	0, $\frac{1}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$
2	0, $\frac{4}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$	-2	$\frac{2}{21}, \frac{1}{3}$	-2	$\frac{8}{21}, \frac{10}{21}$
$ D \equiv 25 \pmod{84}$							
2	0, $\frac{2}{21}$	-2	$\frac{1}{7}, \frac{5}{21}$	2	0, $\frac{1}{21}$	-2	$\frac{4}{21}, \frac{5}{21}$
2	0, $\frac{1}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$	2	0, $\frac{4}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$
2	0, $\frac{2}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$				
$ D \equiv 37 \pmod{84}$							
2	0, $\frac{2}{21}$	-2	$\frac{1}{7}, \frac{5}{21}$	2	0, $\frac{1}{21}$	-2	$\frac{4}{21}, \frac{5}{21}$
2	0, $\frac{1}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$	2	0, $\frac{4}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$
2	0, $\frac{2}{21}$	-2	$\frac{8}{21}, \frac{10}{21}$				
$ D \equiv 61 \pmod{84}$							
2	0, $\frac{2}{21}$	-2	$\frac{1}{7}, \frac{5}{21}$	2	0, $\frac{1}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$
2	0, $\frac{4}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$	-2	$\frac{2}{21}, \frac{1}{3}$	-2	$\frac{8}{21}, \frac{10}{21}$
$ D \equiv 73 \pmod{84}$							
2	0, $\frac{2}{21}$	-2	$\frac{1}{7}, \frac{5}{21}$	2	0, $\frac{1}{21}$	-2	$\frac{8}{21}, \frac{3}{7}$
2	0, $\frac{4}{21}$	-2	$\frac{2}{7}, \frac{10}{21}$	-2	$\frac{2}{21}, \frac{1}{3}$	-2	$\frac{8}{21}, \frac{10}{21}$
$ D \equiv 5 \pmod{56}$							
2	0, $\frac{1}{28}$	2	$\frac{3}{28}, \frac{9}{28}$	2	$\frac{5}{28}, \frac{3}{14}$	2	$\frac{2}{7}, \frac{9}{28}$
-2	0, $\frac{5}{28}$	-2	$\frac{9}{28}, \frac{3}{7}$	-2	$\frac{3}{28}, \frac{5}{28}$	-2	$\frac{3}{14}, \frac{13}{28}$
2	0, $\frac{1}{28}$	-2	$\frac{2}{7}, \frac{13}{28}$	-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{5}{14}, \frac{13}{28}$
-2	0, $\frac{5}{28}$	-2	$\frac{11}{28}, \frac{13}{28}$	2	$\frac{9}{28}, \frac{5}{14}$	-2	$\frac{11}{28}, \frac{13}{28}$
-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{9}{28}, \frac{1}{2}$	2	$\frac{3}{28}, \frac{1}{7}$	-2	$\frac{11}{28}, \frac{1}{2}$
2	$\frac{5}{28}, \frac{9}{28}$	2	$\frac{3}{7}, \frac{1}{2}$	2	$\frac{5}{28}, \frac{11}{28}$	2	$\frac{13}{28}, \frac{1}{2}$

Table 5.5: $e = 7$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 13 \pmod{56}$							
2	$0, \frac{1}{28}$	2	$\frac{3}{28}, \frac{9}{28}$	-2	$0, \frac{5}{28}$	-2	$\frac{9}{28}, \frac{3}{7}$
-2	$\frac{3}{28}, \frac{5}{28}$	-2	$\frac{3}{14}, \frac{13}{28}$	2	$0, \frac{1}{28}$	-2	$\frac{2}{7}, \frac{13}{28}$
-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{5}{14}, \frac{13}{28}$	-2	$0, \frac{5}{28}$	-2	$\frac{11}{28}, \frac{13}{28}$
2	$\frac{9}{28}, \frac{5}{14}$	-2	$\frac{11}{28}, \frac{13}{28}$	-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{9}{28}, \frac{1}{2}$
2	$\frac{3}{28}, \frac{1}{7}$	-2	$\frac{11}{28}, \frac{1}{2}$	2	$\frac{5}{28}, \frac{9}{28}$	2	$\frac{3}{7}, \frac{1}{2}$
2	$\frac{5}{28}, \frac{11}{28}$	2	$\frac{13}{28}, \frac{1}{2}$				
$ D \equiv 29 \pmod{56}$							
-2	$\frac{1}{28}, \frac{3}{28}$	2	$\frac{1}{4}, \frac{9}{28}$	2	$\frac{5}{28}, \frac{3}{14}$	2	$\frac{2}{7}, \frac{9}{28}$
-2	$0, \frac{5}{28}$	-2	$\frac{9}{28}, \frac{3}{7}$	2	$0, \frac{1}{28}$	-2	$\frac{2}{7}, \frac{13}{28}$
-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{5}{14}, \frac{13}{28}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{11}{28}, \frac{13}{28}$
2	$\frac{3}{28}, \frac{1}{7}$	-2	$\frac{11}{28}, \frac{1}{2}$	2	$\frac{5}{28}, \frac{9}{28}$	2	$\frac{3}{7}, \frac{1}{2}$
$ D \equiv 37 \pmod{56}$							
2	$\frac{5}{28}, \frac{3}{14}$	2	$\frac{2}{7}, \frac{9}{28}$	-2	$0, \frac{5}{28}$	-2	$\frac{9}{28}, \frac{3}{7}$
2	$0, \frac{1}{28}$	-2	$\frac{2}{7}, \frac{13}{28}$	-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{5}{14}, \frac{13}{28}$
2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{11}{28}, \frac{13}{28}$	2	$\frac{3}{28}, \frac{1}{7}$	-2	$\frac{11}{28}, \frac{1}{2}$
2	$\frac{5}{28}, \frac{9}{28}$	2	$\frac{3}{7}, \frac{1}{2}$				
$ D \equiv 45 \pmod{56}$							
2	$0, \frac{1}{28}$	2	$\frac{3}{28}, \frac{9}{28}$	2	$\frac{5}{28}, \frac{3}{14}$	2	$\frac{2}{7}, \frac{9}{28}$
-2	$0, \frac{5}{28}$	-2	$\frac{9}{28}, \frac{3}{7}$	-2	$\frac{3}{28}, \frac{5}{28}$	-2	$\frac{3}{14}, \frac{13}{28}$
2	$0, \frac{1}{28}$	-2	$\frac{2}{7}, \frac{13}{28}$	-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{5}{14}, \frac{13}{28}$
-2	$0, \frac{5}{28}$	-2	$\frac{11}{28}, \frac{13}{28}$	2	$\frac{9}{28}, \frac{5}{14}$	-2	$\frac{11}{28}, \frac{13}{28}$
-2	$\frac{1}{28}, \frac{3}{28}$	-2	$\frac{9}{28}, \frac{1}{2}$	2	$\frac{3}{28}, \frac{1}{7}$	-2	$\frac{11}{28}, \frac{1}{2}$
2	$\frac{5}{28}, \frac{9}{28}$	2	$\frac{3}{7}, \frac{1}{2}$	2	$\frac{5}{28}, \frac{11}{28}$	2	$\frac{13}{28}, \frac{1}{2}$
$ D \equiv 53 \pmod{56}$							
-2	$\frac{1}{28}, \frac{3}{28}$	2	$\frac{1}{4}, \frac{9}{28}$	2	$\frac{5}{28}, \frac{3}{14}$	2	$\frac{2}{7}, \frac{9}{28}$
-2	$0, \frac{5}{28}$	-2	$\frac{9}{28}, \frac{3}{7}$	2	$0, \frac{1}{28}$	-2	$\frac{2}{7}, \frac{13}{28}$
-2	$\frac{1}{28}, \frac{1}{7}$	-2	$\frac{5}{14}, \frac{13}{28}$	2	$\frac{5}{28}, \frac{1}{4}$	-2	$\frac{11}{28}, \frac{13}{28}$
2	$\frac{3}{28}, \frac{1}{7}$	-2	$\frac{11}{28}, \frac{1}{2}$	2	$\frac{5}{28}, \frac{9}{28}$	2	$\frac{3}{7}, \frac{1}{2}$

For the case $e = 8$ there were 385 formulae, given below.

Table 5.6: Two Term Dirichlet Type Formulae, $e = 8$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{8}$							
2	$0, \frac{1}{8}$	-2	$\frac{1}{8}, \frac{1}{4}$	4	$0, \frac{1}{8}$	2	$\frac{1}{8}, \frac{3}{8}$
3	$0, \frac{1}{8}$	1	$\frac{1}{4}, \frac{3}{8}$	6	$0, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$
-6	$\frac{1}{8}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{3}{8}$	4	$0, \frac{1}{8}$	2	$\frac{1}{4}, \frac{1}{2}$
-4	$\frac{1}{8}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{1}{2}$	2	$0, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$
2	$0, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{8}, \frac{3}{8}$	-4	$\frac{3}{8}, \frac{1}{2}$
-2	$\frac{1}{4}, \frac{3}{8}$	-6	$\frac{3}{8}, \frac{1}{2}$				
$ D \equiv 3 \pmod{8}$							
-2	$0, \frac{1}{8}$	2	$\frac{1}{4}, \frac{3}{8}$	-2	$0, \frac{1}{8}$	2	$\frac{1}{8}, \frac{1}{2}$
-4	$0, \frac{1}{8}$	2	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{1}{2}$
2	$0, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$	2	$\frac{1}{4}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 5 \pmod{8}$							
4	$0, \frac{1}{8}$	2	$\frac{1}{8}, \frac{3}{8}$	2	$0, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$
4	$0, \frac{1}{8}$	-2	$\frac{1}{4}, \frac{1}{2}$	-4	$\frac{1}{8}, \frac{1}{4}$	-6	$\frac{1}{4}, \frac{1}{2}$
2	$0, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$	-2	$0, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$
-1	$\frac{1}{8}, \frac{1}{4}$	-3	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{8}, \frac{3}{8}$	-4	$\frac{3}{8}, \frac{1}{2}$
2	$\frac{1}{4}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$				
$ D \equiv 1 \pmod{8}$							
2	$0, \frac{1}{8}$	-2	$\frac{3}{16}, \frac{5}{16}$	2	$0, \frac{1}{16}$	-2	$\frac{3}{8}, \frac{7}{16}$
$ D \equiv 3 \pmod{8}$							
-2	$0, \frac{3}{16}$	2	$\frac{5}{16}, \frac{3}{8}$	2	$\frac{3}{16}, \frac{1}{4}$	2	$\frac{5}{16}, \frac{3}{8}$
2	$0, \frac{1}{16}$	2	$\frac{1}{8}, \frac{7}{16}$	-2	$\frac{1}{16}, \frac{1}{8}$	2	$\frac{1}{4}, \frac{7}{16}$
-2	$\frac{1}{16}, \frac{3}{16}$	2	$\frac{5}{16}, \frac{7}{16}$				
$ D \equiv 5 \pmod{8}$							
2	$0, \frac{1}{8}$	2	$\frac{3}{16}, \frac{5}{16}$	-2	$\frac{1}{8}, \frac{3}{16}$	-2	$\frac{5}{16}, \frac{1}{2}$
2	$\frac{1}{16}, \frac{3}{8}$	-2	$\frac{7}{16}, \frac{1}{2}$				
$ D \equiv 7 \pmod{8}$							
$\frac{8}{3}$	$\frac{1}{8}, \frac{3}{16}$	$\frac{4}{3}$	$\frac{3}{16}, \frac{5}{16}$	2	$\frac{1}{8}, \frac{3}{16}$	2	$\frac{1}{4}, \frac{5}{16}$
4	$\frac{1}{8}, \frac{3}{16}$	-4	$\frac{5}{16}, \frac{3}{8}$	4	$\frac{3}{16}, \frac{5}{16}$	8	$\frac{5}{16}, \frac{3}{8}$
-4	$\frac{1}{16}, \frac{1}{8}$	4	$\frac{1}{8}, \frac{7}{16}$	4	$\frac{1}{16}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{7}{16}$

Table 5.6: $e = 8$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{16}, \frac{3}{16}$	-2	$\frac{5}{16}, \frac{7}{16}$	2	$\frac{1}{16}, \frac{1}{4}$	-2	$\frac{3}{8}, \frac{7}{16}$
$\frac{4}{3}$	$\frac{1}{16}, \frac{3}{8}$	$-\frac{4}{3}$	$\frac{3}{8}, \frac{7}{16}$	2	$\frac{1}{8}, \frac{3}{16}$	-2	$\frac{5}{16}, \frac{1}{2}$
-4	$\frac{3}{16}, \frac{5}{16}$	-8	$\frac{5}{16}, \frac{1}{2}$	4	$\frac{1}{16}, \frac{1}{4}$	4	$\frac{7}{16}, \frac{1}{2}$
2	$\frac{1}{16}, \frac{3}{8}$	2	$\frac{7}{16}, \frac{1}{2}$	4	$\frac{1}{16}, \frac{7}{16}$	8	$\frac{7}{16}, \frac{1}{2}$
$ D \equiv 1 \pmod{24}$							
-4	$\frac{1}{8}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{5}{12}$	4	0, $\frac{1}{8}$	2	$\frac{5}{24}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{1}{3}$	-4	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 5 \pmod{24}$							
-2	0, $\frac{1}{24}$	2	$\frac{1}{12}, \frac{5}{24}$	-2	0, $\frac{1}{24}$	2	$\frac{1}{6}, \frac{5}{24}$
2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{6}, \frac{5}{24}$	6	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{1}{4}$
4	0, $\frac{1}{8}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{6}, \frac{1}{4}$
-4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{4}$	-2	0, $\frac{1}{24}$	2	$\frac{1}{12}, \frac{7}{24}$
-2	0, $\frac{1}{24}$	2	$\frac{1}{6}, \frac{7}{24}$	2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{6}, \frac{7}{24}$
4	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{3}{8}$	2	0, $\frac{1}{8}$	2	$\frac{1}{6}, \frac{3}{8}$
2	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{6}, \frac{3}{8}$	-2	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{3}{8}$
2	$\frac{1}{12}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$
-2	0, $\frac{1}{24}$	-2	$\frac{5}{24}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{5}{12}$
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{5}{12}$	4	0, $\frac{1}{8}$	-2	$\frac{1}{4}, \frac{5}{12}$
4	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{1}{4}, \frac{5}{12}$	-4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{5}{12}$
-4	$\frac{1}{8}, \frac{1}{4}$	-6	$\frac{1}{4}, \frac{5}{12}$	-2	0, $\frac{1}{24}$	-2	$\frac{7}{24}, \frac{5}{12}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{7}{24}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{5}{12}$
2	0, $\frac{1}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$
-2	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{3}{8}, \frac{5}{12}$	-2	0, $\frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$
-2	$\frac{1}{12}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$	-1	$\frac{1}{8}, \frac{1}{4}$	-3	$\frac{3}{8}, \frac{5}{12}$
-2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$	-2	$\frac{1}{8}, \frac{3}{8}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{4}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	2	0, $\frac{5}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{6}, \frac{5}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	0, $\frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{12}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{6}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$	-2	0, $\frac{1}{24}$	-2	$\frac{5}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{1}{4}, \frac{1}{2}$	-4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{1}{2}$
-2	0, $\frac{1}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{7}{24}, \frac{1}{2}$

Table 5.6: $e = 8$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$
-2	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$	2	0, $\frac{5}{24}$	2	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{5}{24}$	2	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{11}{24}, \frac{1}{2}$
2	0, $\frac{7}{24}$	2	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{7}{24}$	2	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{7}{24}$	2	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{5}{24}, \frac{5}{12}$	2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{7}{24}, \frac{5}{12}$	2	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 7 \pmod{24}$							
4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{8}, \frac{5}{24}$	-2	$\frac{1}{24}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{7}{24}$
-4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{1}{4}, \frac{7}{24}$
-2	0, $\frac{1}{8}$	2	$\frac{1}{8}, \frac{1}{3}$	-4	0, $\frac{1}{8}$	4	$\frac{1}{6}, \frac{1}{3}$
-4	0, $\frac{1}{8}$	4	$\frac{1}{4}, \frac{1}{3}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{24}, \frac{3}{8}$
4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{7}{24}, \frac{3}{8}$	4	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{7}{24}, \frac{3}{8}$
2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{3}{8}$	4	0, $\frac{1}{6}$	4	$\frac{1}{3}, \frac{3}{8}$
4	0, $\frac{1}{4}$	4	$\frac{1}{3}, \frac{3}{8}$	2	0, $\frac{1}{3}$	4	$\frac{1}{3}, \frac{3}{8}$
-2	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{5}{12}$	-4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{6}, \frac{5}{12}$
-4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{4}, \frac{5}{12}$
4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{12}, \frac{1}{6}$	-4	$\frac{3}{8}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{5}{24}$	-4	$\frac{3}{8}, \frac{5}{12}$	4	$\frac{1}{12}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{12}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{8}, \frac{11}{24}$
4	$\frac{1}{8}, \frac{5}{24}$	2	$\frac{5}{24}, \frac{11}{24}$	4	$\frac{1}{8}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{11}{24}$
-4	$\frac{1}{12}, \frac{1}{8}$	-4	$\frac{7}{24}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{3}{8}, \frac{11}{24}$
-4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{3}{8}, \frac{11}{24}$	4	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{11}{24}$
2	$\frac{5}{24}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{11}{24}$	-4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{7}{24}, \frac{1}{2}$
-4	0, $\frac{1}{8}$	-4	$\frac{1}{3}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{1}{8}$	-4	$\frac{5}{12}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{3}{8}$	4	$\frac{5}{12}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{5}{24}, \frac{3}{8}$	4	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 11 \pmod{24}$							
2	0, $\frac{1}{8}$	6	$\frac{1}{8}, \frac{1}{6}$	-4	0, $\frac{1}{8}$	-6	$\frac{1}{6}, \frac{1}{4}$
4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{1}{4}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{7}{24}$
2	0, $\frac{1}{8}$	6	$\frac{1}{8}, \frac{1}{3}$	-4	0, $\frac{1}{8}$	6	$\frac{1}{4}, \frac{1}{3}$
4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{4}, \frac{1}{3}$	4	$\frac{1}{8}, \frac{1}{4}$	6	$\frac{1}{4}, \frac{1}{3}$

Table 5.6: $e = 8$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{24}, \frac{1}{6}$	2	$\frac{7}{24}, \frac{1}{3}$	-1	$0, \frac{1}{8}$	3	$\frac{1}{6}, \frac{3}{8}$
-2	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{3}{8}$	-6	$0, \frac{1}{6}$	4	$\frac{1}{4}, \frac{3}{8}$
3	$\frac{1}{8}, \frac{1}{6}$	1	$\frac{1}{4}, \frac{3}{8}$	6	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$
-1	$0, \frac{1}{8}$	3	$\frac{1}{3}, \frac{3}{8}$	-2	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{3}{8}$
2	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{3}, \frac{3}{8}$	1	$\frac{1}{8}, \frac{1}{4}$	3	$\frac{1}{3}, \frac{3}{8}$
2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{3}, \frac{3}{8}$	-2	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{3}{8}$
-2	$\frac{1}{4}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{3}{8}$	2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{7}{24}, \frac{5}{12}$
2	$\frac{1}{24}, \frac{5}{24}$	2	$\frac{1}{3}, \frac{5}{12}$	4	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{5}{24}, \frac{11}{24}$
-2	$\frac{1}{12}, \frac{1}{6}$	2	$\frac{7}{24}, \frac{11}{24}$	1	$\frac{1}{24}, \frac{5}{24}$	1	$\frac{7}{24}, \frac{11}{24}$
2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{1}{3}, \frac{11}{24}$	-2	$\frac{1}{12}, \frac{7}{24}$	2	$\frac{1}{3}, \frac{11}{24}$
-2	$\frac{5}{24}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{11}{24}$	2	$\frac{1}{12}, \frac{5}{24}$	2	$\frac{5}{12}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$	-2	$\frac{1}{6}, \frac{7}{24}$	2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{7}{24}, \frac{1}{3}$	2	$\frac{5}{12}, \frac{11}{24}$	-4	$0, \frac{1}{8}$	3	$\frac{1}{6}, \frac{1}{2}$
4	$\frac{1}{8}, \frac{1}{6}$	1	$\frac{1}{6}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{4}, \frac{1}{2}$
-4	$0, \frac{1}{8}$	3	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{6}$	1	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{8}, \frac{1}{4}$	3	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{3}$	1	$\frac{1}{3}, \frac{1}{2}$
6	$0, \frac{1}{6}$	-4	$\frac{3}{8}, \frac{1}{2}$	6	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{3}{8}, \frac{1}{2}$
-6	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$	6	$0, \frac{1}{3}$	-4	$\frac{3}{8}, \frac{1}{2}$
6	$\frac{1}{8}, \frac{1}{3}$	2	$\frac{3}{8}, \frac{1}{2}$	6	$\frac{1}{4}, \frac{1}{3}$	-4	$\frac{3}{8}, \frac{1}{2}$
3	$\frac{1}{6}, \frac{3}{8}$	-1	$\frac{3}{8}, \frac{1}{2}$	3	$\frac{1}{3}, \frac{3}{8}$	-1	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 13 \pmod{24}$							
6	$0, \frac{1}{12}$	4	$\frac{1}{12}, \frac{1}{8}$	2	$0, \frac{1}{12}$	-4	$\frac{1}{8}, \frac{1}{6}$
-2	$\frac{1}{12}, \frac{1}{8}$	-6	$\frac{1}{8}, \frac{1}{6}$	6	$0, \frac{1}{12}$	-4	$\frac{1}{8}, \frac{1}{4}$
4	$0, \frac{1}{8}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{12}, \frac{1}{8}$	6	$\frac{1}{6}, \frac{1}{4}$
-4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$0, \frac{1}{8}$	2	$\frac{5}{24}, \frac{7}{24}$
4	$\frac{1}{12}, \frac{1}{8}$	6	$\frac{5}{24}, \frac{7}{24}$	-4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{5}{24}, \frac{7}{24}$
2	$0, \frac{1}{12}$	4	$\frac{1}{12}, \frac{3}{8}$	4	$\frac{1}{12}, \frac{1}{8}$	6	$\frac{1}{8}, \frac{3}{8}$
-2	$0, \frac{1}{12}$	4	$\frac{1}{6}, \frac{3}{8}$	2	$0, \frac{1}{8}$	2	$\frac{1}{6}, \frac{3}{8}$
1	$\frac{1}{12}, \frac{1}{8}$	3	$\frac{1}{6}, \frac{3}{8}$	2	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{3}{8}$
-2	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{3}{8}$	2	$0, \frac{1}{12}$	4	$\frac{1}{4}, \frac{3}{8}$
-2	$\frac{1}{12}, \frac{1}{8}$	6	$\frac{1}{4}, \frac{3}{8}$	-2	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{1}{4}, \frac{3}{8}$
2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$	6	$0, \frac{1}{12}$	-4	$\frac{1}{8}, \frac{5}{12}$

Table 5.6: $e = 8$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
6	$0, \frac{1}{8}$	2	$\frac{1}{8}, \frac{5}{12}$	4	$0, \frac{1}{8}$	2	$\frac{1}{6}, \frac{5}{12}$
4	$\frac{1}{12}, \frac{1}{8}$	6	$\frac{1}{6}, \frac{5}{12}$	-4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{1}{6}, \frac{5}{12}$
2	$0, \frac{1}{12}$	-4	$\frac{3}{8}, \frac{5}{12}$	-2	$\frac{1}{12}, \frac{1}{8}$	-6	$\frac{3}{8}, \frac{5}{12}$
-2	$\frac{1}{12}, \frac{1}{6}$	-4	$\frac{3}{8}, \frac{5}{12}$	2	$0, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{8}, \frac{1}{4}$	-6	$\frac{3}{8}, \frac{5}{12}$	2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{5}{12}$	2	$\frac{5}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$0, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	2	$\frac{1}{8}, \frac{3}{8}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{6}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	4	$0, \frac{1}{8}$	2	$\frac{5}{24}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{1}{8}$	6	$\frac{5}{24}, \frac{11}{24}$	-4	$\frac{1}{8}, \frac{1}{6}$	2	$\frac{5}{24}, \frac{11}{24}$
2	$0, \frac{1}{12}$	-4	$\frac{1}{8}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{1}{8}$	-6	$\frac{1}{8}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{8}$	-6	$\frac{1}{4}, \frac{1}{2}$	-4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{1}{2}$
-2	$0, \frac{1}{12}$	-4	$\frac{3}{8}, \frac{1}{2}$	1	$\frac{1}{12}, \frac{1}{8}$	-3	$\frac{3}{8}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{1}{6}$	-4	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{3}{8}, \frac{1}{2}$
-2	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{1}{2}$
-2	$\frac{5}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{1}{2}$
4	$0, \frac{1}{8}$	-2	$\frac{5}{12}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{8}$	-6	$\frac{5}{12}, \frac{1}{2}$
-4	$\frac{1}{8}, \frac{1}{6}$	-2	$\frac{5}{12}, \frac{1}{2}$	-4	$\frac{1}{8}, \frac{1}{4}$	-6	$\frac{5}{12}, \frac{1}{2}$
4	$0, \frac{3}{8}$	2	$\frac{5}{12}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{3}{8}$	-2	$\frac{5}{12}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{3}{8}$	2	$\frac{5}{12}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{3}{8}$	-2	$\frac{5}{12}, \frac{1}{2}$
-4	$\frac{1}{8}, \frac{5}{12}$	-6	$\frac{5}{12}, \frac{1}{2}$	-4	$\frac{3}{8}, \frac{5}{12}$	-2	$\frac{5}{12}, \frac{1}{2}$
$ D \equiv 17 \pmod{24}$							
4	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{1}{6}, \frac{1}{4}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{1}{3}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{7}{24}, \frac{1}{3}$	-2	$0, \frac{1}{24}$	-2	$\frac{5}{24}, \frac{5}{12}$
2	$\frac{1}{24}, \frac{5}{24}$	-1	$\frac{1}{3}, \frac{5}{12}$	2	$\frac{1}{12}, \frac{1}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$
-2	$\frac{1}{8}, \frac{1}{3}$	-2	$\frac{3}{8}, \frac{5}{12}$	-2	$0, \frac{1}{12}$	-2	$\frac{7}{24}, \frac{11}{24}$
-1	$0, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{11}{24}$	-2	$\frac{1}{12}, \frac{1}{6}$	-2	$\frac{7}{24}, \frac{11}{24}$
1	$\frac{1}{24}, \frac{5}{24}$	-1	$\frac{7}{24}, \frac{11}{24}$	2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{1}{3}, \frac{11}{24}$
2	$\frac{1}{6}, \frac{7}{24}$	-2	$\frac{1}{3}, \frac{11}{24}$	2	$0, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{1}{2}$	-2	$0, \frac{1}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{5}{24}$	-2	$\frac{1}{3}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{5}{24}$	2	$\frac{5}{12}, \frac{1}{2}$
2	$0, \frac{5}{24}$	2	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{7}{24}$	2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{7}{24}, \frac{1}{3}$	2	$\frac{11}{24}, \frac{1}{2}$				

Table 5.6: $e = 8$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 19 \pmod{24}$				$(\text{mod } 24)$			
-4	0, $\frac{1}{8}$	6	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{8}, \frac{1}{6}$	10	$\frac{1}{6}, \frac{1}{4}$
-1	0, $\frac{1}{8}$	3	$\frac{1}{8}, \frac{1}{3}$	-4	0, $\frac{1}{8}$	2	$\frac{1}{6}, \frac{1}{3}$
4	$\frac{1}{8}, \frac{1}{6}$	$\frac{10}{3}$	$\frac{1}{6}, \frac{1}{3}$	-4	0, $\frac{1}{8}$	3	$\frac{1}{4}, \frac{1}{3}$
4	$\frac{1}{8}, \frac{1}{6}$	5	$\frac{1}{4}, \frac{1}{3}$	4	$\frac{1}{8}, \frac{1}{4}$	3	$\frac{1}{4}, \frac{1}{3}$
$-\frac{5}{2}$	0, $\frac{1}{8}$	$\frac{3}{2}$	$\frac{1}{6}, \frac{3}{8}$	10	0, $\frac{1}{6}$	4	$\frac{1}{6}, \frac{3}{8}$
6	0, $\frac{1}{6}$	4	$\frac{1}{4}, \frac{3}{8}$	$\frac{3}{2}$	$\frac{1}{8}, \frac{1}{6}$	$\frac{5}{2}$	$\frac{1}{4}, \frac{3}{8}$
-6	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{3}{8}$	2	0, $\frac{1}{8}$	6	$\frac{1}{3}, \frac{3}{8}$
-2	0, $\frac{1}{6}$	4	$\frac{1}{3}, \frac{3}{8}$	-1	$\frac{1}{8}, \frac{1}{6}$	5	$\frac{1}{3}, \frac{3}{8}$
-2	$\frac{1}{8}, \frac{1}{4}$	6	$\frac{1}{3}, \frac{3}{8}$	2	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{3}, \frac{3}{8}$
1	0, $\frac{1}{3}$	4	$\frac{1}{3}, \frac{3}{8}$	$\frac{2}{3}$	$\frac{1}{6}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{3}{8}$
1	$\frac{1}{4}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{3}{8}$	-4	0, $\frac{1}{8}$	$\frac{3}{2}$	$\frac{1}{6}, \frac{1}{2}$
4	$\frac{1}{8}, \frac{1}{6}$	$\frac{5}{2}$	$\frac{1}{6}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{6}$	$\frac{10}{3}$	$\frac{1}{4}, \frac{1}{2}$
-4	0, $\frac{1}{8}$	6	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{6}$	10	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{8}, \frac{1}{4}$	6	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{8}, \frac{1}{3}$	-2	$\frac{1}{3}, \frac{1}{2}$
-6	0, $\frac{1}{6}$	-4	$\frac{3}{8}, \frac{1}{2}$	6	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{1}{2}$
3	0, $\frac{1}{3}$	-4	$\frac{3}{8}, \frac{1}{2}$	3	$\frac{1}{8}, \frac{1}{3}$	-1	$\frac{3}{8}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{3}{8}, \frac{1}{2}$	3	$\frac{1}{4}, \frac{1}{3}$	-4	$\frac{3}{8}, \frac{1}{2}$
$\frac{3}{2}$	$\frac{1}{6}, \frac{3}{8}$	$-\frac{5}{2}$	$\frac{3}{8}, \frac{1}{2}$	6	$\frac{1}{3}, \frac{3}{8}$	2	$\frac{3}{8}, \frac{1}{2}$
$ D \equiv 23 \pmod{24}$				$(\text{mod } 24)$			
$\frac{4}{3}$	$\frac{1}{24}, \frac{1}{12}$	$\frac{4}{3}$	$\frac{1}{8}, \frac{5}{24}$	2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{6}, \frac{5}{24}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{1}{6}, \frac{7}{24}$
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{1}{4}, \frac{7}{24}$
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{1}{4}, \frac{7}{24}$	2	$\frac{1}{24}, \frac{1}{4}$	-2	$\frac{1}{4}, \frac{7}{24}$
2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{7}{24}, \frac{1}{3}$
2	$\frac{1}{24}, \frac{1}{6}$	2	$\frac{7}{24}, \frac{1}{3}$	2	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{7}{24}, \frac{1}{3}$
2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{1}{3}$	4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{24}, \frac{3}{8}$
2	$\frac{1}{24}, \frac{1}{8}$	2	$\frac{7}{24}, \frac{3}{8}$	$\frac{4}{3}$	$\frac{1}{24}, \frac{1}{6}$	$\frac{4}{3}$	$\frac{7}{24}, \frac{3}{8}$
$\frac{4}{3}$	$\frac{1}{24}, \frac{1}{4}$	$\frac{4}{3}$	$\frac{7}{24}, \frac{3}{8}$	1	$\frac{1}{24}, \frac{7}{24}$	2	$\frac{7}{24}, \frac{3}{8}$
-2	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{5}{12}$	-4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{6}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{5}{24}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{5}{12}$
-4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{4}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{5}{24}$	-2	$\frac{1}{4}, \frac{5}{12}$

Table 5.6: $e = 8$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$
-4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{3}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{5}{24}$	-2	$\frac{1}{3}, \frac{5}{12}$
4	$\frac{1}{12}, \frac{1}{6}$	-4	$\frac{3}{8}, \frac{5}{12}$	$\frac{4}{3}$	$\frac{1}{24}, \frac{5}{24}$	$-\frac{4}{3}$	$\frac{3}{8}, \frac{5}{12}$
4	$\frac{1}{12}, \frac{1}{4}$	-4	$\frac{3}{8}, \frac{5}{12}$	4	$\frac{1}{12}, \frac{1}{3}$	-4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{12}, \frac{3}{8}$	-2	$\frac{3}{8}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{8}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{11}{24}$	4	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{5}{24}, \frac{11}{24}$
$\frac{4}{3}$	$\frac{1}{8}, \frac{5}{24}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{11}{24}$	2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{1}{4}, \frac{11}{24}$
-2	$\frac{5}{24}, \frac{1}{4}$	2	$\frac{1}{4}, \frac{11}{24}$	2	$\frac{1}{12}, \frac{1}{6}$	2	$\frac{7}{24}, \frac{11}{24}$
1	$\frac{1}{24}, \frac{5}{24}$	1	$\frac{7}{24}, \frac{11}{24}$	2	$\frac{1}{12}, \frac{1}{4}$	2	$\frac{7}{24}, \frac{11}{24}$
$\frac{4}{3}$	$\frac{1}{8}, \frac{5}{24}$	$\frac{4}{3}$	$\frac{1}{3}, \frac{11}{24}$	2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{1}{3}, \frac{11}{24}$
-2	$\frac{5}{24}, \frac{1}{4}$	2	$\frac{1}{3}, \frac{11}{24}$	-2	$\frac{5}{24}, \frac{1}{3}$	2	$\frac{1}{3}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{3}{8}, \frac{11}{24}$	4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{3}{8}, \frac{11}{24}$
-4	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{3}{8}, \frac{11}{24}$	-4	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{3}{8}, \frac{11}{24}$
2	$\frac{1}{12}, \frac{5}{24}$	2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{1}{12}$	-2	$\frac{5}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{7}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{1}{6}$	2	$\frac{7}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{7}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{1}{12}, \frac{1}{8}$	-4	$\frac{5}{12}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{5}{24}$	2	$\frac{5}{12}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{3}{8}$	4	$\frac{5}{12}, \frac{1}{2}$	$\frac{4}{3}$	$\frac{1}{8}, \frac{5}{24}$	$-\frac{4}{3}$	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{5}{24}$	-2	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{5}{24}, \frac{1}{3}$	-2	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{3}{8}$	-4	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{7}{24}, \frac{5}{12}$	-2	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{5}{24}, \frac{11}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$

For the case $e = 11$ there were 30 formulae, given below.

Table 5.7: Two Term Dirichlet Type Formulae, $e = 11$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$

Table 5.7: $e = 11$ (continued)[illegible]

Table 5.7: $e = 11$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 9 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 17 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 25 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 41 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 49 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$

Table 5.7: $e = 11$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 57 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 65 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 73 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				
$ D \equiv 81 \pmod{88}$							
2	$0, \frac{1}{22}$	-2	$\frac{3}{22}, \frac{2}{11}$	2	$0, \frac{1}{11}$	-2	$\frac{5}{22}, \frac{7}{22}$
2	$0, \frac{1}{22}$	-2	$\frac{3}{11}, \frac{7}{22}$				

For the case $e = 12$ there were 192 formulae, given below.

Table 5.8: Two Term Dirichlet Type Formulae, $e = 12$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 7 \pmod{24}$							
-2	$0, \frac{1}{12}$	2	$\frac{1}{12}, \frac{1}{3}$	-4	$0, \frac{1}{12}$	4	$\frac{1}{6}, \frac{1}{3}$
-4	$0, \frac{1}{12}$	4	$\frac{1}{4}, \frac{1}{3}$	4	$0, \frac{1}{6}$	4	$\frac{1}{3}, \frac{5}{12}$
4	$0, \frac{1}{4}$	4	$\frac{1}{3}, \frac{5}{12}$	2	$0, \frac{1}{3}$	4	$\frac{1}{3}, \frac{5}{12}$
-4	$0, \frac{1}{12}$	-4	$\frac{1}{3}, \frac{1}{2}$				
$ D \equiv 11 \pmod{24}$							
-4	$0, \frac{1}{12}$	-4	$\frac{1}{6}, \frac{1}{4}$	-4	$0, \frac{1}{12}$	4	$\frac{1}{4}, \frac{1}{3}$
-2	$0, \frac{1}{12}$	2	$\frac{1}{4}, \frac{5}{12}$	-4	$0, \frac{1}{6}$	4	$\frac{1}{4}, \frac{5}{12}$
$-\frac{8}{3}$	$0, \frac{1}{12}$	$\frac{4}{3}$	$\frac{1}{12}, \frac{1}{2}$	-4	$0, \frac{1}{12}$	2	$\frac{1}{6}, \frac{1}{2}$
-4	$0, \frac{1}{12}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{4}$	$\frac{4}{3}$	$\frac{1}{4}, \frac{1}{2}$
-4	$0, \frac{1}{12}$	2	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{4}$	2	$\frac{1}{3}, \frac{1}{2}$
-8	$0, \frac{1}{12}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$0, \frac{1}{6}$	-4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{12}, \frac{1}{4}$	4	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{5}{12}, \frac{1}{2}$

Table 5.8: $e = 12$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$0, \frac{1}{3}$	-4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{4}, \frac{1}{3}$	-4	$\frac{5}{12}, \frac{1}{2}$
$\frac{8}{3}$	$0, \frac{5}{12}$	$\frac{-4}{3}$	$\frac{5}{12}, \frac{1}{2}$	$\frac{8}{3}$	$\frac{1}{4}, \frac{5}{12}$	$\frac{-4}{3}$	$\frac{5}{12}, \frac{1}{2}$
$ D \equiv 19 \pmod{24}$							
-12	$0, \frac{1}{12}$	-8	$\frac{1}{12}, \frac{1}{6}$	-4	$0, \frac{1}{12}$	8	$\frac{1}{6}, \frac{1}{4}$
4	$\frac{1}{12}, \frac{1}{6}$	12	$\frac{1}{6}, \frac{1}{4}$	-4	$0, \frac{1}{12}$	$\frac{8}{3}$	$\frac{1}{6}, \frac{1}{3}$
-4	$0, \frac{1}{12}$	4	$\frac{1}{4}, \frac{1}{3}$	4	$\frac{1}{12}, \frac{1}{6}$	6	$\frac{1}{4}, \frac{1}{3}$
$\frac{-12}{5}$	$0, \frac{1}{12}$	$\frac{8}{5}$	$\frac{1}{6}, \frac{5}{12}$	12	$0, \frac{1}{6}$	4	$\frac{1}{6}, \frac{5}{12}$
-2	$0, \frac{1}{12}$	2	$\frac{1}{4}, \frac{5}{12}$	8	$0, \frac{1}{6}$	4	$\frac{1}{4}, \frac{5}{12}$
$\frac{8}{5}$	$\frac{1}{12}, \frac{1}{6}$	$\frac{12}{5}$	$\frac{1}{4}, \frac{5}{12}$	-8	$\frac{1}{6}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{5}{12}$
$\frac{-4}{3}$	$0, \frac{1}{12}$	$\frac{8}{3}$	$\frac{1}{12}, \frac{1}{2}$	-4	$0, \frac{1}{12}$	2	$\frac{1}{6}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{6}$	3	$\frac{1}{6}, \frac{1}{2}$	-4	$0, \frac{1}{12}$	$\frac{8}{3}$	$\frac{1}{4}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{1}{4}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{4}$	$\frac{8}{3}$	$\frac{1}{4}, \frac{1}{2}$
-4	$0, \frac{1}{12}$	8	$\frac{1}{3}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{6}$	12	$\frac{1}{3}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{4}$	8	$\frac{1}{3}, \frac{1}{2}$	4	$0, \frac{1}{12}$	-8	$\frac{5}{12}, \frac{1}{2}$
-4	$0, \frac{1}{6}$	-4	$\frac{5}{12}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{1}{4}$	-8	$\frac{5}{12}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{1}{4}$	-4	$\frac{5}{12}, \frac{1}{2}$	2	$0, \frac{1}{3}$	-4	$\frac{5}{12}, \frac{1}{2}$
$\frac{4}{3}$	$\frac{1}{6}, \frac{1}{3}$	-4	$\frac{5}{12}, \frac{1}{2}$	2	$\frac{1}{4}, \frac{1}{3}$	-4	$\frac{5}{12}, \frac{1}{2}$
$\frac{4}{3}$	$0, \frac{5}{12}$	$\frac{-8}{3}$	$\frac{5}{12}, \frac{1}{2}$	1	$\frac{1}{6}, \frac{5}{12}$	-3	$\frac{5}{12}, \frac{1}{2}$
$\frac{4}{3}$	$\frac{1}{4}, \frac{5}{12}$	$\frac{-8}{3}$	$\frac{5}{12}, \frac{1}{2}$				
$ D \equiv 7 \pmod{24}$							
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{24}, \frac{1}{4}$	-2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{12}, \frac{7}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{7}{24}$	-8	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{24}, \frac{7}{24}$
8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{24}, \frac{7}{24}$	$\frac{8}{3}$	$\frac{1}{12}, \frac{5}{24}$	$\frac{4}{3}$	$\frac{5}{24}, \frac{7}{24}$
8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{7}{24}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{4}, \frac{7}{24}$
2	$\frac{1}{12}, \frac{5}{24}$	2	$\frac{1}{4}, \frac{7}{24}$	4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{7}{24}$
-4	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{7}{24}$	4	$0, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{3}$
4	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{3}{8}$	4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{6}, \frac{3}{8}$
4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{4}, \frac{3}{8}$	4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{3}{8}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{24}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{7}{24}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{8}, \frac{1}{6}$	4	$\frac{3}{8}, \frac{5}{12}$
4	$\frac{1}{8}, \frac{1}{4}$	4	$\frac{3}{8}, \frac{5}{12}$	2	$\frac{1}{8}, \frac{3}{8}$	4	$\frac{3}{8}, \frac{5}{12}$

Table 5.8: $e = 12$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{24}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{4}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{11}{24}$	-4	0, $\frac{1}{24}$	-4	$\frac{1}{3}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{3}{8}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{4}$	-2	$\frac{5}{12}, \frac{11}{24}$	1	$\frac{1}{24}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
$\frac{4}{3}$	$\frac{1}{12}, \frac{7}{24}$	$-\frac{4}{3}$	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{6}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
$\frac{4}{3}$	$\frac{5}{24}, \frac{7}{24}$	$-\frac{8}{3}$	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{4}, \frac{7}{24}$	-2	$\frac{5}{12}, \frac{11}{24}$
$\frac{4}{3}$	$\frac{1}{24}, \frac{5}{12}$	$-\frac{4}{3}$	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{5}{24}, \frac{5}{12}$	-2	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{8}$	-4	$\frac{3}{8}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{7}{24}$	2	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{7}{24}$	4	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{5}{12}$	2	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{5}{24}, \frac{5}{12}$	4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{11}{24}$	8	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 11 \pmod{24}$							
-8	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{5}{24}, \frac{7}{24}$	-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{7}{24}, \frac{1}{3}$
-4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{5}{24}, \frac{3}{8}$	-4	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{7}{24}, \frac{5}{12}$
-2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{7}{24}, \frac{5}{12}$	$\frac{4}{3}$	$\frac{5}{24}, \frac{7}{24}$	$\frac{8}{3}$	$\frac{7}{24}, \frac{5}{12}$
$-\frac{4}{3}$	$\frac{1}{24}, \frac{1}{12}$	$\frac{4}{3}$	$\frac{1}{12}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{6}, \frac{11}{24}$
-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{11}{24}$	-2	$\frac{1}{24}, \frac{5}{24}$	2	$\frac{7}{24}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{3}, \frac{11}{24}$	-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{11}{24}$
-4	$\frac{1}{24}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{11}{24}$	-4	$\frac{1}{8}, \frac{7}{24}$	4	$\frac{3}{8}, \frac{11}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{5}{12}$	-4	$\frac{5}{12}, \frac{11}{24}$
$ D \equiv 19 \pmod{24}$							
4	0, $\frac{1}{24}$	4	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{7}{24}$
-2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{5}{24}, \frac{1}{3}$	-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{7}{24}, \frac{1}{3}$
$-\frac{4}{3}$	$\frac{1}{24}, \frac{1}{12}$	$\frac{4}{3}$	$\frac{5}{24}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{7}{24}, \frac{5}{12}$
-2	$\frac{1}{6}, \frac{5}{24}$	2	$\frac{7}{24}, \frac{5}{12}$	-2	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{6}, \frac{11}{24}$
-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{3}, \frac{11}{24}$	-4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{5}{12}, \frac{11}{24}$

Table 5.8: $e = 12$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{12}, \frac{7}{24}$	-4	$\frac{5}{12}, \frac{11}{24}$				
$ D \equiv 23 \pmod{24}$							
$\frac{8}{3}$	$\frac{1}{12}, \frac{5}{24}$	$\frac{4}{3}$	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{7}{24}$
2	$\frac{1}{12}, \frac{5}{24}$	2	$\frac{1}{4}, \frac{7}{24}$	4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{7}{24}$
-4	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{7}{24}$	2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{3}$
4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{3}$	-4	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{1}{3}$
4	$\frac{1}{12}, \frac{1}{8}$	2	$\frac{1}{8}, \frac{3}{8}$	4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{6}, \frac{3}{8}$
4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{5}{24}, \frac{3}{8}$	4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{4}, \frac{3}{8}$
4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{1}{4}, \frac{3}{8}$	4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{3}{8}$
4	$\frac{1}{12}, \frac{1}{8}$	4	$\frac{1}{3}, \frac{3}{8}$	4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{1}{3}, \frac{3}{8}$
4	$\frac{1}{12}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{8}, \frac{1}{6}$	4	$\frac{3}{8}, \frac{5}{12}$	$\frac{4}{3}$	$\frac{1}{24}, \frac{5}{24}$	$\frac{8}{3}$	$\frac{3}{8}, \frac{5}{12}$
4	$\frac{1}{8}, \frac{1}{4}$	4	$\frac{3}{8}, \frac{5}{12}$	4	$\frac{1}{8}, \frac{1}{3}$	4	$\frac{3}{8}, \frac{5}{12}$
2	$\frac{1}{8}, \frac{3}{8}$	4	$\frac{3}{8}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{8}$	-2	$\frac{5}{24}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{4}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{11}{24}$
8	$\frac{1}{8}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{11}{24}$
8	$\frac{1}{8}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{3}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{1}{3}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{3}$	-4	$\frac{1}{3}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{3}{8}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{11}{24}$
4	$\frac{1}{8}, \frac{7}{24}$	-4	$\frac{3}{8}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{6}$	-2	$\frac{5}{12}, \frac{11}{24}$	2	$\frac{1}{24}, \frac{1}{4}$	-2	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{1}{3}$	-2	$\frac{5}{12}, \frac{11}{24}$	$\frac{4}{3}$	$\frac{1}{24}, \frac{5}{12}$	$-\frac{4}{3}$	$\frac{5}{12}, \frac{11}{24}$
2	$\frac{1}{12}, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{8}$	-4	$\frac{3}{8}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{3}{8}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{1}{3}$	4	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{5}{12}$	2	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{11}{24}$	8	$\frac{11}{24}, \frac{1}{2}$

For the case $e = 13$ there were 84 formulae, given below.

Table 5.9: Two Term Dirichlet Type Formulae, $e = 13$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 3 \pmod{104}$							
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
$ D \equiv 7 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 15 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 23 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 27 \pmod{104}$							
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
$ D \equiv 31 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 35 \pmod{104}$							
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
$ D \equiv 43 \pmod{104}$							
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$

Table 5.9: $e = 13$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
$ D \equiv 47 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 51 \pmod{104}$							
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
$ D \equiv 55 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 63 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 71 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 75 \pmod{104}$							
4	$\frac{1}{13}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{9}{26}$	4	$\frac{1}{13}, \frac{5}{26}$	4	$\frac{3}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{7}{26}, \frac{5}{13}$	4	$\frac{1}{13}, \frac{3}{26}$	4	$\frac{4}{13}, \frac{5}{13}$
-4	$\frac{2}{13}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{11}{26}$	4	$\frac{3}{26}, \frac{2}{13}$	4	$\frac{3}{13}, \frac{6}{13}$
-4	$\frac{2}{13}, \frac{5}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	-4	$\frac{1}{26}, \frac{3}{13}$	4	$\frac{4}{13}, \frac{6}{13}$
4	$\frac{1}{13}, \frac{7}{26}$	4	$\frac{4}{13}, \frac{6}{13}$	4	$\frac{1}{13}, \frac{5}{13}$	4	$\frac{11}{26}, \frac{6}{13}$
$ D \equiv 79 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 87 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 95 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$
$ D \equiv 103 \pmod{104}$							
2	$\frac{1}{26}, \frac{2}{13}$	-2	$\frac{5}{26}, \frac{3}{13}$	2	$\frac{1}{13}, \frac{7}{26}$	2	$\frac{9}{26}, \frac{5}{13}$

For the case $e = 15$ there were 1574 formulae, given below.

Table 5.10: Two Term Dirichlet Type Formulae, $e = 15$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{60}$							
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$
4	$0, \frac{2}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$0, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{1}{3}, \frac{7}{15}$	4	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
$ D \equiv 13 \pmod{60}$							
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	8	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{4}{15}$
8	$0, \frac{1}{15}$	4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{2}{5}$
4	$0, \frac{2}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$0, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$				
$ D \equiv 17 \pmod{60}$							
8	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{4}{15}$	4	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
8	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{2}{5}$	4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$0, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{7}{15}$				
$ D \equiv 29 \pmod{60}$							
4	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$
4	$0, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{7}{15}$	4	$0, \frac{2}{15}$	-4	$\frac{1}{3}, \frac{7}{15}$
$ D \equiv 37 \pmod{60}$							
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	8	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{4}{15}$
8	$0, \frac{1}{15}$	4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{2}{5}$
4	$0, \frac{2}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$0, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$				
$ D \equiv 41 \pmod{60}$							
4	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$
4	$0, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{7}{15}$	4	$0, \frac{2}{15}$	-4	$\frac{1}{3}, \frac{7}{15}$
$ D \equiv 49 \pmod{60}$							
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$
4	$0, \frac{2}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$0, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{1}{3}, \frac{7}{15}$	4	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 53 \pmod{60}$							
8	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{4}{15}$	4	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
8	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{2}{5}$	4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$0, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{7}{15}$				
$ D \equiv 1 \pmod{120}$							
8	$0, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{3}$
8	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
-8	$\frac{1}{15}, \frac{1}{3}$	4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{2}{5}$
8	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{13}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{1}{3}$	-8	$\frac{1}{3}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
$ D \equiv 13 \pmod{120}$							
12	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{15}, \frac{2}{15}$
8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{6}$
-4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{2}{15}, \frac{1}{5}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{6}, \frac{1}{5}$
8	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{7}{30}$	4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{1}{10}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{2}{15}, \frac{4}{15}$
4	$0, \frac{1}{15}$	4	$\frac{1}{6}, \frac{4}{15}$	-4	$0, \frac{1}{10}$	8	$\frac{1}{6}, \frac{4}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	6	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{4}{15}$
4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{4}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{3}{10}$
4	$0, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{3}{10}$	8	$0, \frac{2}{15}$	-4	$\frac{1}{6}, \frac{3}{10}$
-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{3}{10}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{5}, \frac{3}{10}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	4	$0, \frac{1}{15}$	4	$\frac{2}{15}, \frac{11}{30}$
-4	$0, \frac{1}{10}$	8	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	6	$\frac{2}{15}, \frac{11}{30}$
-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{6}, \frac{11}{30}$
4	$0, \frac{1}{15}$	2	$\frac{1}{5}, \frac{11}{30}$	-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	3	$\frac{1}{5}, \frac{11}{30}$	2	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{1}{5}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{11}{30}$	4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$
8	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{11}{30}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-8	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{7}{30}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	8	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{11}{30}$
4	0, $\frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{3}{10}, \frac{11}{30}$
2	$\frac{1}{10}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{11}{30}$	4	0, $\frac{1}{10}$	-8	$\frac{2}{15}, \frac{2}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{15}, \frac{2}{5}$	-4	0, $\frac{1}{30}$	4	$\frac{1}{6}, \frac{2}{5}$
-8	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{1}{5}, \frac{2}{5}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{2}{5}$
-8	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{2}{5}$	4	0, $\frac{2}{15}$	-2	$\frac{7}{30}, \frac{2}{5}$
-4	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{2}{5}$	-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	0, $\frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	0, $\frac{1}{10}$	8	$\frac{2}{15}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{2}{15}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{13}{30}$
2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{13}{30}$
4	0, $\frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{3}{10}, \frac{13}{30}$
8	0, $\frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{11}{30}, \frac{13}{30}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{11}{30}, \frac{13}{30}$
8	0, $\frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{2}{15}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{13}{30}$
4	0, $\frac{1}{10}$	4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{1}{10}$	6	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{13}{30}$	4	0, $\frac{4}{15}$	2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{13}{30}$	2	$\frac{1}{5}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{13}{30}$
4	0, $\frac{2}{15}$	-4	$\frac{1}{6}, \frac{7}{15}$	4	0, $\frac{1}{10}$	-8	$\frac{1}{5}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{5}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$
-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{5}, \frac{7}{15}$	4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{8}{3}$	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$
-4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$	-4	0, $\frac{1}{10}$	-8	$\frac{3}{10}, \frac{7}{15}$
-4	$\frac{1}{6}, \frac{3}{10}$	-8	$\frac{3}{10}, \frac{7}{15}$	2	0, $\frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$-\frac{4}{3}$	$0, \frac{1}{10}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	$-\frac{4}{5}$	$\frac{1}{15}, \frac{1}{10}$	$-\frac{12}{5}$	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	1	$\frac{1}{30}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{5}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{7}{15}$
-4	$0, \frac{1}{10}$	-8	$\frac{2}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$0, \frac{1}{15}$	-4	$\frac{13}{30}, \frac{7}{15}$
$\frac{4}{3}$	$0, \frac{1}{10}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{1}{10}$	-3	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{13}{30}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{13}{30}, \frac{7}{15}$
2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
-4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$	1	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{2}{5}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{7}{15}$	8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{1}{2}$	4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$
-4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{1}{2}$	-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$
8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{1}{2}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{4}{15}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$	-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$0, \frac{1}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	$0, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{2}{15}, \frac{4}{15}$	-4	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{3}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{4}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$
4	$0, \frac{3}{10}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{3}{10}$	8	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{4}{15}, \frac{11}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 17 \pmod{120}$							
12	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{15}, \frac{7}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{7}{30}$	4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{1}{10}, \frac{4}{15}$	4	$0, \frac{2}{15}$	4	$\frac{7}{30}, \frac{4}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{3}{10}$	4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{4}{15}, \frac{1}{3}$
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{11}{30}$	-4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{11}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{2}{15}, \frac{11}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{11}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{5}, \frac{11}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{11}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{7}{30}, \frac{11}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{4}{15}, \frac{11}{30}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{2}{5}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{2}{5}$	8	$0, \frac{2}{15}$	4	$\frac{7}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{15}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$0, \frac{2}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{2}{5}, \frac{13}{30}$	-8	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
8	$0, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{2}{15}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$0, \frac{1}{10}$	-8	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{1}{5}, \frac{7}{15}$
4	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{7}{15}$	-4	$0, \frac{1}{10}$	-8	$\frac{7}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{7}{30}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$
4	$0, \frac{1}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$
-4	$0, \frac{3}{10}$	-8	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{1}{6}, \frac{3}{10}$	-8	$\frac{1}{3}, \frac{7}{15}$
4	$0, \frac{1}{10}$	-8	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$	4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{11}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$	8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{2}$
4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{2}$	8	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$	4	$0, \frac{3}{10}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{7}{30}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{7}{15}, \frac{1}{2}$				

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 29$				$(\text{mod } 120)$			
-4	$0, \frac{1}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	-2	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{7}{30}$
-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{7}{30}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{4}{15}$
-4	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{3}{10}$	4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{7}{30}, \frac{3}{10}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{3}$	8	$0, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$
-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{3}$
-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$	2	$0, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$
2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{3}, \frac{11}{30}$
-4	$0, \frac{1}{30}$	4	$\frac{1}{10}, \frac{2}{5}$	-4	$0, \frac{1}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{10}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{2}{5}$
4	$0, \frac{1}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	-4	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$
4	$0, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{13}{30}$	8	$0, \frac{7}{30}$	4	$\frac{2}{5}, \frac{13}{30}$
$\frac{8}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
8	$\frac{1}{5}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
8	$0, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{6}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{3}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{7}{15}$
2	$0, \frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{4}{15}, \frac{1}{3}$	-4	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{3}$	-4	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$	-4	$0, \frac{1}{30}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$	4	$0, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{6}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$0, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{2}{5}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{1}{3}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 37 \pmod{120}$							
12	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{15}, \frac{2}{15}$
8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{6}$
-4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{2}{15}, \frac{1}{5}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{6}, \frac{1}{5}$
8	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{7}{30}$	8	$0, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{30}$
8	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{30}$	4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{1}{10}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{2}{15}, \frac{4}{15}$
4	$0, \frac{1}{15}$	4	$\frac{1}{6}, \frac{4}{15}$	-4	$0, \frac{1}{10}$	8	$\frac{1}{6}, \frac{4}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	6	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$
-4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{4}{15}$
4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$	4	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{4}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{7}{30}$	8	$\frac{7}{30}, \frac{4}{15}$
4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{3}{10}$	4	$0, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{3}{10}$
8	$0, \frac{2}{15}$	-4	$\frac{1}{6}, \frac{3}{10}$	-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{3}{10}$
-4	$0, \frac{1}{30}$	4	$\frac{1}{5}, \frac{3}{10}$	4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$
4	$0, \frac{1}{15}$	4	$\frac{2}{15}, \frac{11}{30}$	-4	$0, \frac{1}{10}$	8	$\frac{2}{15}, \frac{11}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	6	$\frac{2}{15}, \frac{11}{30}$	-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{6}, \frac{11}{30}$	4	$0, \frac{1}{15}$	2	$\frac{1}{5}, \frac{11}{30}$
-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{1}{15}, \frac{1}{10}$	3	$\frac{1}{5}, \frac{11}{30}$
2	$\frac{1}{30}, \frac{2}{15}$	1	$\frac{1}{5}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$	8	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{7}{30}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{8}{3}$	$\frac{4}{15}, \frac{11}{30}$
-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{11}{30}$	4	$0, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{11}{30}$
4	0, $\frac{1}{10}$	-8	$\frac{2}{15}, \frac{2}{5}$	4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{15}, \frac{2}{5}$
-4	0, $\frac{1}{30}$	4	$\frac{1}{6}, \frac{2}{5}$	-8	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{1}{5}, \frac{2}{5}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{2}{5}$
4	0, $\frac{2}{15}$	-2	$\frac{7}{30}, \frac{2}{5}$	-4	$\frac{2}{15}, \frac{1}{6}$	-2	$\frac{7}{30}, \frac{2}{5}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{7}{30}$	8	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	0, $\frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{3}{10}, \frac{2}{5}$
4	0, $\frac{1}{10}$	8	$\frac{2}{15}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{2}{15}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{13}{30}$	2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{13}{30}$	4	0, $\frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{3}{10}, \frac{13}{30}$	8	0, $\frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{11}{30}, \frac{13}{30}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{11}{30}, \frac{13}{30}$	8	0, $\frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$
8	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$
8	$\frac{2}{15}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{13}{30}$	4	0, $\frac{1}{10}$	4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{1}{10}$	6	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{2}{15}, \frac{1}{5}$	2	$\frac{2}{5}, \frac{13}{30}$
4	0, $\frac{4}{15}$	2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$
4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{5}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{13}{30}$	4	0, $\frac{2}{15}$	-4	$\frac{1}{6}, \frac{7}{15}$
4	0, $\frac{1}{10}$	-8	$\frac{1}{5}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{5}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{5}, \frac{7}{15}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{8}{3}$	$\frac{3}{10}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$
-4	0, $\frac{3}{10}$	-8	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{1}{6}, \frac{3}{10}$	-8	$\frac{3}{10}, \frac{7}{15}$
2	0, $\frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	$-\frac{4}{3}$	0, $\frac{1}{10}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
$-\frac{4}{5}$	$\frac{1}{15}, \frac{1}{10}$	$-\frac{12}{5}$	$\frac{11}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
1	$\frac{1}{30}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
-4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{5}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$0, \frac{1}{10}$	-8	$\frac{2}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{2}{5}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{2}{5}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$0, \frac{1}{15}$	-4	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$0, \frac{1}{10}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{1}{10}$	-3	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{13}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{1}{10}, \frac{1}{6}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{13}{30}, \frac{7}{15}$	2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{1}{5}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{5}, \frac{2}{5}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{7}{15}$
8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{2}$	-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{1}{2}$	4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{1}{2}$
4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{1}{2}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{4}{15}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$
-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$	-4	$0, \frac{1}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{2}{15}, \frac{4}{15}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{3}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$
4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{4}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$
4	$0, \frac{3}{10}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{3}{10}$	8	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{4}{15}, \frac{11}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{7}{15}, \frac{1}{2}$
$ D \equiv 41 \pmod{120}$							
8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{4}{15}, \frac{1}{3}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$	8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{3}$
8	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{11}{30}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{13}{30}$
8	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{4}{15}, \frac{1}{3}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{1}{5}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{1}{3}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{7}{30}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 49 \pmod{120}$							
8	$0, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{3}$
8	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
-8	$\frac{1}{15}, \frac{1}{3}$	4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{2}{5}$
8	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{13}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{1}{3}$	-8	$\frac{1}{3}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 53$				$(\text{mod } 120)$			
-4	$0, \frac{1}{30}$	4	$\frac{1}{15}, \frac{2}{15}$	12	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{2}{15}$
4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{2}{15}, \frac{1}{6}$
-4	$0, \frac{1}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	-2	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{7}{30}$
-4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{2}{15}, \frac{7}{30}$	-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{7}{30}$
4	$0, \frac{2}{15}$	2	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{7}{30}$
-4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{7}{30}$	4	$0, \frac{1}{15}$	4	$\frac{1}{6}, \frac{4}{15}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{4}{15}$
-4	$0, \frac{1}{10}$	8	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{1}{5}, \frac{4}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{4}{15}$	-4	$0, \frac{1}{10}$	-8	$\frac{7}{30}, \frac{4}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{7}{30}, \frac{4}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{1}{30}, \frac{7}{30}$	8	$\frac{7}{30}, \frac{4}{15}$
12	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{3}{10}$	-4	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{3}{10}$
8	$0, \frac{1}{15}$	4	$\frac{1}{6}, \frac{3}{10}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{6}, \frac{3}{10}$
-8	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{3}{10}$	4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{3}{10}$
4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$	4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$
2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{7}{30}, \frac{3}{10}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{3}{10}$
4	$0, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{3}{10}$	4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{3}{10}$
4	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{3}{10}$	4	$0, \frac{1}{15}$	4	$\frac{2}{15}, \frac{11}{30}$
-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{6}, \frac{11}{30}$
8	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{11}{30}$	4	$0, \frac{1}{10}$	8	$\frac{4}{15}, \frac{11}{30}$
-4	$\frac{1}{10}, \frac{2}{15}$	12	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{4}{15}, \frac{11}{30}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	8	$\frac{4}{15}, \frac{11}{30}$	2	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{11}{30}$
-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{11}{30}$	2	$0, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$
2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$	4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{3}{10}, \frac{11}{30}$
-4	$0, \frac{1}{30}$	4	$\frac{1}{10}, \frac{2}{5}$	8	$\frac{1}{10}, \frac{2}{15}$	12	$\frac{1}{5}, \frac{2}{5}$
-8	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{2}{5}$	4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{2}{5}$
-4	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{4}{15}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{4}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$	-4	$0, \frac{1}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{10}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{2}{5}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{1}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{2}{15}$	-6	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$	-4	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$
4	$0, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{1}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{13}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$0, \frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$
8	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{3}{10}$	-12	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{2}{15}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{13}{30}$
$\frac{8}{3}$	$0, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	$\frac{8}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
8	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
8	$\frac{1}{5}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
8	$0, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{6}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$
-12	$0, \frac{1}{10}$	-8	$\frac{1}{10}, \frac{7}{15}$	-4	$0, \frac{1}{10}$	-8	$\frac{1}{6}, \frac{7}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{1}{6}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{6}, \frac{7}{15}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{7}{15}$	2	$0, \frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{7}{15}$	-4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$0, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	$-\frac{4}{5}$	$\frac{1}{15}, \frac{3}{10}$	$-\frac{12}{5}$	$\frac{11}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{1}{6}, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$	-4	$0, \frac{1}{15}$	-4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$
2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$0, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
1	$\frac{1}{15}, \frac{3}{10}$	-3	$\frac{13}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{6}, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{7}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{7}{15}$
$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{2}{15}, \frac{1}{2}$	-4	$0, \frac{1}{30}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{1}{2}$	4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$
8	$0, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$
8	$0, \frac{4}{15}$	4	$\frac{3}{10}, \frac{1}{2}$	8	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{3}{10}$	-12	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$
-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$	4	$0, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{2}{15}, \frac{4}{15}$	-4	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$
4	$0, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$	-4	$\frac{2}{5}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{1}{2}$
-4	$0, \frac{1}{10}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{4}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{4}{15}, \frac{11}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{7}{15}$	12	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 61 \pmod{120}$							
4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{7}{30}$
8	$0, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{30}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{3}{10}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{5}, \frac{3}{10}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{3}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{3}$	4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{3}{10}, \frac{1}{3}$
-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{3}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{4}{15}$	$\frac{-4}{3}$	$\frac{3}{10}, \frac{1}{3}$
-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$	-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$
4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$
4	$0, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{3}, \frac{11}{30}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{6}, \frac{2}{5}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$0, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$0, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$	4	$0, \frac{1}{10}$	4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{5}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{3}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{7}{15}$
-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{1}{3}, \frac{7}{15}$	2	$0, \frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{1}{3}$	$\frac{-8}{3}$	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{1}{3}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{3}$	-8	$\frac{2}{5}, \frac{7}{15}$
2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{3}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{1}{2}$	-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{10}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$	-4	$0, \frac{1}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	$\frac{4}{3}, \frac{1}{5}, \frac{7}{30}$	$\frac{7}{30}$	$\frac{-8}{3}$	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{3}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 73 \pmod{120}$							
4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{7}{30}$
8	$0, \frac{1}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{7}{30}$	4	$0, \frac{1}{10}$	8	$\frac{7}{30}, \frac{4}{15}$
4	$0, \frac{2}{15}$	4	$\frac{7}{30}, \frac{4}{15}$	4	$0, \frac{1}{15}$	-4	$\frac{1}{15}, \frac{3}{10}$
6	$0, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{3}{10}$	12	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{3}{10}$
-12	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{10}{30}$
-6	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{10}{30}$
12	$0, \frac{4}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{10}{30}$
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{11}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$
8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{2}{5}$
8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{2}{5}$	4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{2}{5}$
8	$0, \frac{1}{15}$	4	$\frac{11}{30}, \frac{2}{5}$	8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
8	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
-8	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{15}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{2}{15}, \frac{13}{30}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{13}{30}$	8	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$
8	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$0, \frac{2}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{7}{15}$
-4	$0, \frac{1}{10}$	-8	$\frac{1}{10}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{7}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$	4	$0, \frac{1}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{3}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$
4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{11}{30}, \frac{7}{15}$
-4	$0, \frac{3}{10}$	-8	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{3}{10}$	-6	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{2}{5}, \frac{7}{15}$	4	$0, \frac{3}{10}$	-8	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{2}$
-4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{1}{2}$
4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$	8	$0, \frac{1}{15}$	4	$\frac{3}{10}, \frac{1}{2}$
8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{1}{2}$	8	$0, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{1}{10}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{7}{15}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 77 \pmod{120}$							
-4	$0, \frac{1}{30}$	4	$\frac{1}{15}, \frac{2}{15}$	12	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{2}{15}$
4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{2}{15}, \frac{1}{6}$
-4	$0, \frac{1}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	-2	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{7}{30}$
-4	$\frac{1}{15}, \frac{1}{10}$	4	$\frac{2}{15}, \frac{7}{30}$	-4	$0, \frac{1}{10}$	4	$\frac{1}{5}, \frac{7}{30}$
4	$0, \frac{2}{15}$	2	$\frac{1}{5}, \frac{7}{30}$	2	$\frac{1}{10}, \frac{2}{15}$	3	$\frac{1}{5}, \frac{7}{30}$
4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{2}{15}, \frac{1}{6}$	2	$\frac{1}{5}, \frac{7}{30}$
4	$0, \frac{1}{15}$	4	$\frac{1}{6}, \frac{4}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{4}{15}$	-4	$0, \frac{1}{10}$	8	$\frac{1}{5}, \frac{4}{15}$
2	$\frac{1}{10}, \frac{2}{15}$	6	$\frac{1}{5}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{1}{5}, \frac{4}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{4}{15}$	-4	$0, \frac{1}{10}$	-8	$\frac{7}{30}, \frac{4}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{4}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	-6	$\frac{7}{30}, \frac{4}{15}$
4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{4}{15}$
4	$\frac{1}{30}, \frac{7}{30}$	8	$\frac{7}{30}, \frac{4}{15}$	12	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{3}{10}$
-4	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{3}{10}$	8	$0, \frac{1}{15}$	4	$\frac{1}{6}, \frac{3}{10}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$\frac{4}{3}$	$\frac{1}{6}, \frac{3}{10}$	-8	$\frac{1}{15}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{3}{10}$
4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{3}{10}$	4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{7}{30}, \frac{3}{10}$
4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	4	$0, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{3}{10}$
4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{3}{10}$	4	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{3}{10}$
4	$0, \frac{1}{15}$	4	$\frac{2}{15}, \frac{11}{30}$	-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{6}, \frac{11}{30}$	8	$0, \frac{2}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$
8	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{7}{30}, \frac{11}{30}$
4	$0, \frac{1}{10}$	8	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{1}{10}, \frac{2}{15}$	12	$\frac{4}{15}, \frac{11}{30}$
-4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{4}{15}, \frac{11}{30}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{8}{3}$	$\frac{4}{15}, \frac{11}{30}$
2	$\frac{1}{5}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{11}{30}$	-4	$\frac{7}{30}, \frac{4}{15}$	4	$\frac{4}{15}, \frac{11}{30}$
2	$0, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$
4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{3}{10}, \frac{11}{30}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{10}, \frac{2}{5}$
8	$\frac{1}{10}, \frac{2}{15}$	12	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{2}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{4}{15}, \frac{2}{5}$
-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{4}{15}, \frac{2}{5}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{-8}{3}$	$\frac{4}{15}, \frac{2}{5}$
2	$\frac{1}{5}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{4}{15}$	-2	$\frac{4}{15}, \frac{2}{5}$
-4	$0, \frac{1}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{10}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{2}{5}$	4	$0, \frac{1}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{1}{10}, \frac{2}{15}$	-6	$\frac{11}{30}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$\frac{-4}{3}$	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$
2	$\frac{1}{30}, \frac{4}{15}$	-1	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{5}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$
-4	$\frac{7}{30}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{13}{30}$	4	$0, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{7}{30}$	4	$\frac{4}{15}, \frac{13}{30}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$0, \frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$0, \frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{3}{10}$	-12	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$\frac{2}{15}, \frac{11}{30}$	4	$\frac{11}{30}, \frac{13}{30}$	$\frac{8}{3}$	$0, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
$\frac{8}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{5}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{13}{30}$
8	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$	8	$0, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$
8	$\frac{1}{6}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$0, \frac{1}{10}$	-8	$\frac{1}{6}, \frac{7}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{1}{6}, \frac{7}{15}$	2	$\frac{1}{10}, \frac{2}{15}$	-6	$\frac{1}{6}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{6}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{1}{5}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{7}{15}$
2	$0, \frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{2}{15}, \frac{1}{5}$	-2	$\frac{11}{30}, \frac{7}{15}$
-4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	$\frac{4}{3}$	$0, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
$-\frac{4}{5}$	$\frac{1}{15}, \frac{3}{10}$	$-\frac{12}{5}$	$\frac{11}{30}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{1}{6}, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$0, \frac{1}{15}$	-4	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{15}, \frac{4}{15}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
$\frac{4}{3}$	$0, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	1	$\frac{1}{15}, \frac{3}{10}$	-3	$\frac{13}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{1}{6}, \frac{3}{10}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{7}{15}$
-2	$\frac{1}{5}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{7}{15}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{13}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{7}{15}$
4	$0, \frac{1}{10}$	-8	$\frac{2}{5}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{2}{15}$	-12	$\frac{2}{5}, \frac{1}{2}$
-4	$0, \frac{1}{30}$	-4	$\frac{1}{5}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$	8	$0, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
$\frac{8}{3}$	$\frac{1}{30}, \frac{2}{15}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$	8	$0, \frac{4}{15}$	4	$\frac{3}{10}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{1}{15}, \frac{3}{10}$	-12	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$	-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$
-4	$0, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$
4	$0, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$
2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{2}{15}, \frac{4}{15}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$0, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{2}{5}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{1}{2}$	-4	$0, \frac{1}{10}$	8	$\frac{7}{15}, \frac{1}{2}$
4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{2}{15}$	6	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{6}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{4}{15}$	-4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{4}{15}, \frac{11}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$
-2	$\frac{11}{30}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$	4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{7}{15}$	12	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 89 \pmod{120}$							
8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{3}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{4}{15}, \frac{1}{3}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$	8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{3}$
8	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{11}{30}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{13}{30}$
8	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{4}{15}, \frac{1}{3}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{1}{5}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{1}{3}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{7}{30}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$				

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 97 \pmod{120}$							
4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{7}{30}$
8	$0, \frac{1}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{7}{30}$	4	$0, \frac{1}{10}$	8	$\frac{7}{30}, \frac{4}{15}$
4	$0, \frac{2}{15}$	4	$\frac{7}{30}, \frac{4}{15}$	4	$0, \frac{1}{15}$	-4	$\frac{1}{15}, \frac{3}{10}$
6	$0, \frac{1}{15}$	-2	$\frac{4}{15}, \frac{3}{10}$	12	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{4}{15}, \frac{3}{10}$
-12	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{3}{10}$
-6	$\frac{2}{15}, \frac{7}{30}$	-2	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{3}{10}$
12	$0, \frac{4}{15}$	4	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{3}{10}$
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{11}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$
8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{7}{30}, \frac{11}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{2}{5}$
8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{2}{5}$	4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{2}{5}$
8	$0, \frac{1}{15}$	4	$\frac{11}{30}, \frac{2}{5}$	8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{11}{30}, \frac{2}{5}$
8	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$
-8	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{15}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{2}{15}, \frac{13}{30}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{13}{30}$	8	$0, \frac{2}{15}$	4	$\frac{1}{5}, \frac{13}{30}$
8	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{13}{30}$	-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$0, \frac{2}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{7}{15}$
-4	$0, \frac{1}{10}$	-8	$\frac{1}{10}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{1}{5}, \frac{7}{15}$
4	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$	4	$0, \frac{1}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$	-4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{1}{3}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$
4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{11}{30}, \frac{7}{15}$
-4	$0, \frac{3}{10}$	-8	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{7}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-2	$\frac{4}{15}, \frac{3}{10}$	-6	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{2}{5}, \frac{7}{15}$	4	$0, \frac{3}{10}$	-8	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{5}, \frac{7}{15}$
-4	$\frac{1}{30}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$	-4	$\frac{11}{30}, \frac{2}{5}$	-8	$\frac{2}{5}, \frac{7}{15}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{2}$
-4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{1}{2}$
4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$	8	$0, \frac{1}{15}$	4	$\frac{3}{10}, \frac{1}{2}$
8	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{1}{2}$	8	$0, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{4}{15}, \frac{3}{10}$	-12	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{1}{10}$	8	$\frac{7}{15}, \frac{1}{2}$	4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{7}{15}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 101 \pmod{120}$							
-4	$0, \frac{1}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	-2	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{7}{30}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-4	$\frac{2}{15}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{4}{15}$
-4	$0, \frac{1}{30}$	2	$\frac{1}{10}, \frac{3}{10}$	4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{3}{10}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{7}{30}, \frac{3}{10}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{3}$	8	$0, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{1}{3}$
-8	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{4}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{3}$
-2	$0, \frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$	2	$0, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$
2	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{3}, \frac{11}{30}$
-4	$0, \frac{1}{30}$	4	$\frac{1}{10}, \frac{2}{5}$	-4	$0, \frac{1}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{10}, \frac{7}{30}$	4	$\frac{3}{10}, \frac{2}{5}$
4	$0, \frac{1}{10}$	-4	$\frac{11}{30}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{1}{6}$	-4	$\frac{11}{30}, \frac{2}{5}$
$\frac{4}{3}$	$\frac{1}{30}, \frac{7}{30}$	$-\frac{4}{3}$	$\frac{11}{30}, \frac{2}{5}$	2	$\frac{1}{5}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{2}{5}$
4	$0, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{13}{30}$	$\frac{8}{3}$	$0, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$\frac{8}{3}$	$\frac{1}{6}, \frac{7}{30}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$	$\frac{8}{3}$	$\frac{1}{30}, \frac{3}{10}$	$\frac{4}{3}$	$\frac{2}{5}, \frac{13}{30}$
8	$\frac{1}{5}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
8	0, $\frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{6}, \frac{2}{5}$	4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{10}$	-2	$\frac{7}{30}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{3}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{7}{15}$
2	0, $\frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{4}{15}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{4}{15}, \frac{1}{3}$	-4	$\frac{11}{30}, \frac{7}{15}$
$\frac{4}{3}$	$\frac{3}{10}, \frac{1}{3}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{10}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	0, $\frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{3}$	-4	$\frac{13}{30}, \frac{7}{15}$
2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$	-4	0, $\frac{1}{30}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{1}{5}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-2	0, $\frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$	-4	0, $\frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{1}{2}$	-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{3}{10}$	-2	$\frac{11}{30}, \frac{1}{2}$	4	0, $\frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{7}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{3}{10}$	4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{3}{10}, \frac{11}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$	2	0, $\frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{3}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	0, $\frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{2}{5}, \frac{13}{30}$	-8	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{1}{3}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$				
$ D \equiv 109 \pmod{120}$							
4	$\frac{1}{30}, \frac{1}{10}$	4	$\frac{1}{6}, \frac{1}{5}$	8	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{7}{30}$
8	0, $\frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{1}{5}, \frac{7}{30}$
2	$\frac{1}{30}, \frac{2}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	4	$\frac{1}{10}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{4}{15}$
4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{10}, \frac{3}{10}$	-4	0, $\frac{1}{30}$	4	$\frac{1}{5}, \frac{3}{10}$
4	$\frac{1}{30}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{3}{10}$	8	0, $\frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{3}$
-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{1}{3}$	4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{3}$
-8	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{3}$	8	$\frac{1}{30}, \frac{4}{15}$	$-\frac{4}{3}$	$\frac{3}{10}, \frac{1}{3}$
-2	0, $\frac{1}{30}$	2	$\frac{1}{6}, \frac{11}{30}$	-4	0, $\frac{1}{10}$	4	$\frac{1}{5}, \frac{11}{30}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{1}{5}, \frac{11}{30}$	-4	$\frac{1}{15}, \frac{1}{5}$	4	$\frac{4}{15}, \frac{11}{30}$
4	$0, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$	4	$\frac{1}{6}, \frac{1}{5}$	4	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{5}, \frac{7}{30}$	8	$\frac{3}{10}, \frac{11}{30}$	2	$\frac{1}{10}, \frac{3}{10}$	4	$\frac{3}{10}, \frac{11}{30}$
-4	$\frac{1}{15}, \frac{2}{15}$	4	$\frac{1}{3}, \frac{11}{30}$	-4	$0, \frac{1}{30}$	4	$\frac{1}{6}, \frac{2}{5}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$0, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$	4	$\frac{1}{6}, \frac{7}{30}$	-4	$\frac{3}{10}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{3}{10}, \frac{2}{5}$	2	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{1}{6}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{10}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$0, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$
4	$\frac{1}{6}, \frac{7}{30}$	2	$\frac{7}{30}, \frac{13}{30}$	4	$\frac{2}{15}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{13}{30}$
4	$\frac{1}{30}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{13}{30}$	4	$0, \frac{1}{10}$	4	$\frac{2}{5}, \frac{13}{30}$
-4	$\frac{1}{10}, \frac{1}{6}$	4	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{15}, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$
2	$\frac{1}{5}, \frac{11}{30}$	2	$\frac{2}{5}, \frac{13}{30}$	4	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{7}{15}$
4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{7}{15}$
-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{15}$	2	$\frac{1}{30}, \frac{4}{15}$	-2	$\frac{3}{10}, \frac{7}{15}$
-4	$\frac{2}{15}, \frac{1}{6}$	-4	$\frac{1}{3}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{4}{15}$	4	$\frac{1}{3}, \frac{7}{15}$
-4	$\frac{3}{10}, \frac{1}{3}$	-8	$\frac{1}{3}, \frac{7}{15}$	2	$0, \frac{1}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{11}{30}, \frac{7}{15}$
2	$\frac{1}{10}, \frac{4}{15}$	-2	$\frac{11}{30}, \frac{7}{15}$	$\frac{4}{3}$	$\frac{1}{10}, \frac{1}{3}$	$-\frac{8}{3}$	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{4}{15}, \frac{1}{3}$	-4	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{15}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{3}$	-8	$\frac{2}{5}, \frac{7}{15}$
2	$0, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{1}{6}, \frac{4}{15}$	-2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{1}{3}$	-4	$\frac{13}{30}, \frac{7}{15}$	2	$\frac{2}{15}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{7}{15}$
4	$\frac{2}{15}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{10}$	-4	$\frac{1}{5}, \frac{1}{2}$
4	$0, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{1}{2}$	2	$\frac{1}{30}, \frac{2}{15}$	-2	$\frac{4}{15}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{7}{30}$	-2	$\frac{3}{10}, \frac{1}{2}$	-2	$0, \frac{1}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{6}$	-2	$\frac{11}{30}, \frac{1}{2}$	2	$\frac{1}{10}, \frac{7}{30}$	-2	$\frac{11}{30}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{1}{2}$	-4	$0, \frac{1}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$\frac{1}{30}, \frac{1}{6}$	-4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{1}{2}$
4	$0, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{1}{2}$
2	$\frac{1}{30}, \frac{1}{10}$	-2	$\frac{13}{30}, \frac{1}{2}$	-4	$0, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$0, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
2	$\frac{1}{6}, \frac{7}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$	$\frac{4}{3}$	$\frac{1}{5}, \frac{7}{30}$	$-\frac{8}{3}$	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{1}{10}, \frac{3}{10}$	-4	$\frac{13}{30}, \frac{1}{2}$	2	$\frac{3}{10}, \frac{11}{30}$	-2	$\frac{13}{30}, \frac{1}{2}$
-4	$\frac{1}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$	4	$\frac{3}{10}, \frac{2}{5}$	-4	$\frac{13}{30}, \frac{1}{2}$
-2	$\frac{7}{30}, \frac{13}{30}$	-4	$\frac{13}{30}, \frac{1}{2}$				
$ D \equiv 113 \pmod{120}$							
12	$0, \frac{1}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{1}{5}$
4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{15}, \frac{1}{5}$	4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{1}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{7}{30}$	4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{15}, \frac{7}{30}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{7}{30}$	4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{4}{15}$
4	$\frac{1}{15}, \frac{1}{10}$	12	$\frac{1}{10}, \frac{4}{15}$	4	$0, \frac{2}{15}$	4	$\frac{7}{30}, \frac{4}{15}$
4	$0, \frac{2}{15}$	-4	$\frac{2}{15}, \frac{3}{10}$	4	$\frac{1}{10}, \frac{1}{6}$	-8	$\frac{4}{15}, \frac{1}{3}$
4	$0, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{11}{30}$	-4	$0, \frac{1}{10}$	-8	$\frac{2}{15}, \frac{11}{30}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{2}{15}, \frac{11}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{11}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{5}, \frac{11}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{1}{5}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{11}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{7}{30}, \frac{11}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{7}{30}, \frac{11}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{7}{30}, \frac{11}{30}$
4	$\frac{1}{10}, \frac{2}{15}$	-4	$\frac{4}{15}, \frac{11}{30}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{5}, \frac{2}{5}$
8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{2}{5}$	8	$0, \frac{2}{15}$	4	$\frac{7}{30}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{2}{5}$
4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{1}{15}, \frac{13}{30}$	-4	$\frac{1}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{13}{30}$
-4	$\frac{1}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$0, \frac{2}{15}$	4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$
8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{13}{30}$	-8	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{11}{30}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{11}{30}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$0, \frac{1}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{30}, \frac{2}{15}$	4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{2}{5}, \frac{13}{30}$	-8	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{2}{5}, \frac{13}{30}$
8	$0, \frac{4}{15}$	4	$\frac{2}{5}, \frac{13}{30}$	8	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{2}{5}, \frac{13}{30}$
-8	$\frac{2}{15}, \frac{11}{30}$	4	$\frac{2}{5}, \frac{13}{30}$	-4	$0, \frac{1}{10}$	-8	$\frac{1}{5}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{1}{5}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{1}{5}, \frac{7}{15}$
4	$0, \frac{1}{15}$	-4	$\frac{7}{30}, \frac{7}{15}$	-4	$0, \frac{1}{10}$	-8	$\frac{7}{30}, \frac{7}{15}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{7}{30}, \frac{7}{15}$

Table 5.10: $e = 15$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{7}{30}, \frac{7}{15}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{7}{30}, \frac{7}{15}$
4	$0, \frac{1}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{10}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{7}{15}$
4	$\frac{1}{10}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$
4	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{7}{15}$
-4	$0, \frac{3}{10}$	-8	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{1}{6}, \frac{3}{10}$	-8	$\frac{1}{3}, \frac{7}{15}$
4	$0, \frac{1}{10}$	-8	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{2}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$	4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$	4	$0, \frac{4}{15}$	-4	$\frac{11}{30}, \frac{7}{15}$
4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{11}{30}, \frac{7}{15}$	-4	$\frac{1}{5}, \frac{11}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$
-4	$\frac{7}{30}, \frac{11}{30}$	-8	$\frac{11}{30}, \frac{7}{15}$	8	$0, \frac{1}{15}$	-4	$\frac{1}{10}, \frac{1}{2}$
-8	$\frac{1}{15}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{2}$	4	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{2}{15}, \frac{1}{2}$
4	$0, \frac{1}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$0, \frac{1}{10}$	-8	$\frac{4}{15}, \frac{1}{2}$
-2	$\frac{1}{15}, \frac{1}{10}$	-6	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{1}{5}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{1}{5}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{7}{30}$	-8	$\frac{4}{15}, \frac{1}{2}$
-4	$\frac{2}{15}, \frac{7}{30}$	-4	$\frac{4}{15}, \frac{1}{2}$	-4	$\frac{1}{15}, \frac{4}{15}$	-8	$\frac{4}{15}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{4}{15}$	-4	$\frac{4}{15}, \frac{1}{2}$	8	$\frac{1}{30}, \frac{1}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
8	$0, \frac{2}{15}$	4	$\frac{3}{10}, \frac{1}{2}$	8	$\frac{1}{5}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$
8	$\frac{7}{30}, \frac{4}{15}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{2}{15}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{2}{15}$	4	$\frac{7}{15}, \frac{1}{2}$	4	$0, \frac{3}{10}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{7}{30}, \frac{2}{5}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{4}{15}, \frac{2}{5}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{1}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{1}{15}, \frac{13}{30}$	4	$\frac{7}{15}, \frac{1}{2}$	-4	$\frac{11}{30}, \frac{13}{30}$	8	$\frac{7}{15}, \frac{1}{2}$
-4	$\frac{3}{10}, \frac{7}{15}$	4	$\frac{7}{15}, \frac{1}{2}$				

For the case $e = 20$ there were 165 formulae, given below.

Table 5.11: Two Term Dirichlet Type Formulae, $e = 20$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{40}$							
4	$0, \frac{1}{20}$	-4	$\frac{1}{20}, \frac{1}{10}$	4	$0, \frac{1}{20}$	-4	$\frac{3}{20}, \frac{1}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{3}{20}, \frac{1}{5}$	4	$0, \frac{3}{20}$	-4	$\frac{3}{20}, \frac{3}{10}$
8	$0, \frac{3}{20}$	4	$\frac{3}{20}, \frac{7}{20}$	6	$0, \frac{3}{20}$	2	$\frac{3}{10}, \frac{7}{20}$

Table 5.11: $e = 20$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-12	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{20}$	12	$0, \frac{3}{10}$	8	$\frac{3}{10}, \frac{7}{20}$
-12	$\frac{3}{20}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{7}{20}$	8	$0, \frac{3}{20}$	4	$\frac{1}{5}, \frac{2}{5}$
-8	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{2}{5}$	4	$0, \frac{1}{20}$	-4	$\frac{7}{20}, \frac{2}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{7}{20}, \frac{2}{5}$	8	$0, \frac{1}{20}$	4	$\frac{1}{20}, \frac{9}{20}$
6	$0, \frac{1}{20}$	2	$\frac{1}{10}, \frac{9}{20}$	12	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{9}{20}$
-12	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{1}{10}, \frac{9}{20}$	8	$0, \frac{1}{20}$	4	$\frac{1}{10}, \frac{1}{2}$
-8	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{1}{10}, \frac{1}{2}$	8	$0, \frac{3}{20}$	4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{3}{20}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{3}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$0, \frac{3}{10}$	-8	$\frac{7}{20}, \frac{1}{2}$
-4	$\frac{3}{20}, \frac{7}{20}$	-8	$\frac{7}{20}, \frac{1}{2}$	-4	$\frac{3}{10}, \frac{7}{20}$	-12	$\frac{7}{20}, \frac{1}{2}$
4	$0, \frac{1}{20}$	-4	$\frac{9}{20}, \frac{1}{2}$	4	$0, \frac{1}{10}$	-8	$\frac{9}{20}, \frac{1}{2}$
-4	$\frac{1}{20}, \frac{9}{20}$	-8	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{9}{20}$	-12	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 9 \pmod{40}$							
4	$0, \frac{1}{20}$	-4	$\frac{1}{20}, \frac{1}{10}$	4	$0, \frac{1}{20}$	-4	$\frac{3}{20}, \frac{1}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{3}{20}, \frac{1}{5}$	4	$0, \frac{3}{20}$	-4	$\frac{3}{20}, \frac{3}{10}$
8	$0, \frac{3}{20}$	4	$\frac{3}{20}, \frac{7}{20}$	6	$0, \frac{3}{20}$	2	$\frac{3}{10}, \frac{7}{20}$
-12	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{7}{20}$	12	$0, \frac{3}{10}$	8	$\frac{3}{10}, \frac{7}{20}$
-12	$\frac{3}{20}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{7}{20}$	8	$0, \frac{3}{20}$	4	$\frac{1}{5}, \frac{2}{5}$
-8	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{1}{5}, \frac{2}{5}$	4	$0, \frac{1}{20}$	-4	$\frac{7}{20}, \frac{2}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{7}{20}, \frac{2}{5}$	8	$0, \frac{1}{20}$	4	$\frac{1}{20}, \frac{9}{20}$
6	$0, \frac{1}{20}$	2	$\frac{1}{10}, \frac{9}{20}$	12	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{9}{20}$
-12	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{1}{10}, \frac{9}{20}$	8	$0, \frac{1}{20}$	4	$\frac{1}{10}, \frac{1}{2}$
-8	$\frac{1}{20}, \frac{1}{10}$	-4	$\frac{1}{10}, \frac{1}{2}$	8	$0, \frac{3}{20}$	4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{3}{20}, \frac{3}{10}$	-4	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{3}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$0, \frac{3}{10}$	-8	$\frac{7}{20}, \frac{1}{2}$
-4	$\frac{3}{20}, \frac{7}{20}$	-8	$\frac{7}{20}, \frac{1}{2}$	-4	$\frac{3}{10}, \frac{7}{20}$	-12	$\frac{7}{20}, \frac{1}{2}$
4	$0, \frac{1}{20}$	-4	$\frac{9}{20}, \frac{1}{2}$	4	$0, \frac{1}{10}$	-8	$\frac{9}{20}, \frac{1}{2}$
-4	$\frac{1}{20}, \frac{9}{20}$	-8	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{1}{10}, \frac{9}{20}$	-12	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 13 \pmod{40}$							
8	$0, \frac{3}{20}$	4	$\frac{1}{4}, \frac{3}{10}$	4	$0, \frac{1}{20}$	4	$\frac{1}{5}, \frac{7}{20}$
4	$0, \frac{3}{20}$	4	$\frac{1}{4}, \frac{7}{20}$	4	$\frac{1}{4}, \frac{3}{10}$	8	$\frac{3}{10}, \frac{7}{20}$
-4	$\frac{1}{10}, \frac{1}{4}$	-8	$\frac{7}{20}, \frac{2}{5}$	4	$0, \frac{7}{20}$	4	$\frac{2}{5}, \frac{9}{20}$

Table 5.11: $e = 20$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{7}{20}, \frac{1}{2}$	-4	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{7}{20}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{4}$	-8	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{7}{20}, \frac{2}{5}$	-4	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 17 \pmod{40}$							
4	$0, \frac{1}{20}$	-4	$\frac{3}{20}, \frac{1}{5}$	4	$0, \frac{3}{20}$	4	$\frac{1}{4}, \frac{7}{20}$
4	$0, \frac{1}{20}$	-4	$\frac{7}{20}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{1}{4}$	-8	$\frac{7}{20}, \frac{2}{5}$
-4	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{3}{10}$	-8	$\frac{7}{20}, \frac{1}{2}$
$ D \equiv 21 \pmod{40}$							
12	$0, \frac{1}{20}$	4	$\frac{1}{20}, \frac{1}{10}$	12	$0, \frac{3}{20}$	4	$\frac{3}{20}, \frac{3}{10}$
8	$0, \frac{3}{20}$	4	$\frac{3}{20}, \frac{7}{20}$	4	$0, \frac{1}{20}$	4	$\frac{1}{5}, \frac{7}{20}$
-4	$0, \frac{1}{10}$	8	$\frac{1}{5}, \frac{7}{20}$	-2	$\frac{1}{20}, \frac{1}{10}$	6	$\frac{1}{5}, \frac{7}{20}$
4	$0, \frac{3}{10}$	8	$\frac{3}{10}, \frac{7}{20}$	4	$\frac{3}{20}, \frac{3}{10}$	12	$\frac{3}{10}, \frac{7}{20}$
8	$0, \frac{1}{20}$	4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{1}{20}, \frac{1}{10}$	12	$\frac{1}{5}, \frac{2}{5}$
4	$0, \frac{1}{10}$	-8	$\frac{7}{20}, \frac{2}{5}$	4	$\frac{1}{20}, \frac{1}{10}$	-12	$\frac{7}{20}, \frac{2}{5}$
4	$\frac{1}{5}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{2}{5}$	8	$0, \frac{1}{20}$	4	$\frac{1}{20}, \frac{9}{20}$
4	$0, \frac{1}{10}$	8	$\frac{1}{10}, \frac{9}{20}$	4	$\frac{1}{20}, \frac{1}{10}$	12	$\frac{1}{10}, \frac{9}{20}$
4	$0, \frac{3}{10}$	8	$\frac{2}{5}, \frac{9}{20}$	4	$\frac{3}{20}, \frac{3}{10}$	12	$\frac{2}{5}, \frac{9}{20}$
4	$0, \frac{7}{20}$	4	$\frac{2}{5}, \frac{9}{20}$	4	$\frac{3}{20}, \frac{7}{20}$	8	$\frac{2}{5}, \frac{9}{20}$
8	$0, \frac{1}{20}$	-4	$\frac{1}{10}, \frac{1}{2}$	-8	$\frac{1}{20}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{2}$
8	$0, \frac{3}{20}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{3}{20}, \frac{3}{10}$	-12	$\frac{3}{10}, \frac{1}{2}$	4	$0, \frac{3}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$
-4	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{7}{20}, \frac{1}{2}$	-4	$0, \frac{3}{10}$	-8	$\frac{7}{20}, \frac{1}{2}$
-2	$\frac{3}{20}, \frac{3}{10}$	-6	$\frac{7}{20}, \frac{1}{2}$	-4	$\frac{3}{20}, \frac{7}{20}$	-8	$\frac{7}{20}, \frac{1}{2}$
4	$\frac{3}{10}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$0, \frac{1}{20}$	-4	$\frac{9}{20}, \frac{1}{2}$
-4	$0, \frac{1}{10}$	-8	$\frac{9}{20}, \frac{1}{2}$	-2	$\frac{1}{20}, \frac{1}{10}$	-6	$\frac{9}{20}, \frac{1}{2}$
-4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{7}{20}, \frac{2}{5}$	-4	$\frac{9}{20}, \frac{1}{2}$
-4	$\frac{1}{20}, \frac{9}{20}$	-8	$\frac{9}{20}, \frac{1}{2}$	4	$\frac{1}{10}, \frac{9}{20}$	-4	$\frac{9}{20}, \frac{1}{2}$
$ D \equiv 29 \pmod{40}$							
12	$0, \frac{1}{20}$	4	$\frac{1}{20}, \frac{1}{10}$	12	$0, \frac{3}{20}$	4	$\frac{3}{20}, \frac{3}{10}$
8	$0, \frac{3}{20}$	4	$\frac{3}{20}, \frac{7}{20}$	4	$0, \frac{1}{20}$	4	$\frac{1}{5}, \frac{7}{20}$
-4	$0, \frac{1}{10}$	8	$\frac{1}{5}, \frac{7}{20}$	-2	$\frac{1}{20}, \frac{1}{10}$	6	$\frac{1}{5}, \frac{7}{20}$
4	$0, \frac{3}{10}$	8	$\frac{3}{10}, \frac{7}{20}$	4	$\frac{3}{20}, \frac{3}{10}$	12	$\frac{3}{10}, \frac{7}{20}$
-8	$\frac{1}{20}, \frac{1}{10}$	12	$\frac{1}{5}, \frac{2}{5}$	4	$\frac{1}{20}, \frac{1}{10}$	-12	$\frac{7}{20}, \frac{2}{5}$

Table 5.11: $e = 20$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{5}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{2}{5}$	4	$\frac{1}{20}, \frac{1}{10}$	12	$\frac{1}{10}, \frac{9}{20}$
4	$0, \frac{3}{10}$	8	$\frac{2}{5}, \frac{9}{20}$	4	$\frac{3}{20}, \frac{3}{10}$	12	$\frac{2}{5}, \frac{9}{20}$
4	$0, \frac{7}{20}$	4	$\frac{2}{5}, \frac{9}{20}$	4	$\frac{3}{20}, \frac{7}{20}$	8	$\frac{2}{5}, \frac{9}{20}$
-8	$\frac{1}{20}, \frac{1}{10}$	-12	$\frac{1}{10}, \frac{1}{2}$	8	$0, \frac{3}{20}$	-4	$\frac{3}{10}, \frac{1}{2}$
-8	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{3}{10}, \frac{1}{2}$	-8	$\frac{3}{20}, \frac{3}{10}$	-12	$\frac{3}{10}, \frac{1}{2}$
4	$0, \frac{3}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$	-4	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{7}{20}, \frac{1}{2}$
-4	$0, \frac{3}{10}$	-8	$\frac{7}{20}, \frac{1}{2}$	-2	$\frac{3}{20}, \frac{3}{10}$	-6	$\frac{7}{20}, \frac{1}{2}$
-4	$\frac{3}{20}, \frac{7}{20}$	-8	$\frac{7}{20}, \frac{1}{2}$	4	$\frac{3}{10}, \frac{7}{20}$	-4	$\frac{7}{20}, \frac{1}{2}$
4	$0, \frac{1}{20}$	-4	$\frac{9}{20}, \frac{1}{2}$	-4	$0, \frac{1}{10}$	-8	$\frac{9}{20}, \frac{1}{2}$
-2	$\frac{1}{20}, \frac{1}{10}$	-6	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{1}{5}, \frac{2}{5}$	-8	$\frac{9}{20}, \frac{1}{2}$
-4	$\frac{7}{20}, \frac{2}{5}$	-4	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{1}{20}, \frac{9}{20}$	-8	$\frac{9}{20}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{9}{20}$	-4	$\frac{9}{20}, \frac{1}{2}$				
$ D \equiv 33 \pmod{40}$							
4	$0, \frac{1}{20}$	-4	$\frac{3}{20}, \frac{1}{5}$	8	$0, \frac{1}{20}$	4	$\frac{1}{10}, \frac{1}{4}$
-8	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{3}{10}$	4	$0, \frac{3}{20}$	4	$\frac{1}{4}, \frac{7}{20}$
4	$0, \frac{1}{20}$	-4	$\frac{7}{20}, \frac{2}{5}$	-4	$\frac{1}{10}, \frac{1}{4}$	-8	$\frac{7}{20}, \frac{2}{5}$
-4	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{7}{20}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{3}{10}$	-8	$\frac{7}{20}, \frac{1}{2}$
$ D \equiv 37 \pmod{40}$							
8	$0, \frac{3}{20}$	4	$\frac{1}{4}, \frac{3}{10}$	4	$0, \frac{1}{20}$	4	$\frac{1}{5}, \frac{7}{20}$
4	$0, \frac{3}{20}$	4	$\frac{1}{4}, \frac{7}{20}$	4	$\frac{1}{4}, \frac{3}{10}$	8	$\frac{3}{10}, \frac{7}{20}$
-4	$\frac{1}{10}, \frac{1}{4}$	-8	$\frac{7}{20}, \frac{2}{5}$	4	$0, \frac{7}{20}$	4	$\frac{2}{5}, \frac{9}{20}$
-4	$\frac{1}{20}, \frac{1}{5}$	-4	$\frac{7}{20}, \frac{1}{2}$	-4	$\frac{3}{20}, \frac{1}{4}$	-4	$\frac{7}{20}, \frac{1}{2}$
4	$\frac{1}{10}, \frac{1}{4}$	-8	$\frac{9}{20}, \frac{1}{2}$	-4	$\frac{7}{20}, \frac{2}{5}$	-4	$\frac{9}{20}, \frac{1}{2}$

For the case $e = 24$ there were 468 formulae, given below.

Table 5.12: Two Term Dirichlet Type Formulae, $e = 24$

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
$ D \equiv 1 \pmod{24}$							
4	$0, \frac{1}{24}$	-4	$\frac{1}{24}, \frac{1}{12}$	4	$0, \frac{1}{24}$	-4	$\frac{5}{24}, \frac{1}{4}$
4	$0, \frac{1}{12}$	-8	$\frac{5}{24}, \frac{1}{4}$	8	$0, \frac{5}{24}$	4	$\frac{5}{24}, \frac{7}{24}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$0, \frac{5}{24}$	4	$\frac{1}{4}, \frac{1}{3}$	-8	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{1}{3}$
4	$0, \frac{1}{24}$	-4	$\frac{7}{24}, \frac{1}{3}$	4	$0, \frac{1}{12}$	-8	$\frac{7}{24}, \frac{1}{3}$
-8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{5}{12}$	-4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{5}{24}, \frac{5}{12}$
4	$0, \frac{5}{24}$	-4	$\frac{5}{24}, \frac{5}{12}$	-12	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{7}{24}, \frac{5}{12}$
6	$0, \frac{5}{24}$	-2	$\frac{7}{24}, \frac{5}{12}$	-12	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{7}{24}, \frac{5}{12}$
12	$0, \frac{7}{24}$	4	$\frac{7}{24}, \frac{5}{12}$	-12	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$
8	$0, \frac{1}{24}$	4	$\frac{1}{24}, \frac{11}{24}$	6	$0, \frac{1}{24}$	2	$\frac{1}{12}, \frac{11}{24}$
12	$0, \frac{1}{12}$	8	$\frac{1}{12}, \frac{11}{24}$	-12	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{1}{12}, \frac{11}{24}$
8	$0, \frac{1}{24}$	4	$\frac{1}{12}, \frac{1}{2}$	-8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{1}{12}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{5}{24}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{7}{24}, \frac{1}{2}$
4	$0, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$
8	$0, \frac{5}{24}$	4	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{5}{12}, \frac{1}{2}$
8	$0, \frac{7}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{1}{24}, \frac{1}{3}$	4	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{7}{24}, \frac{5}{12}$	-12	$\frac{5}{12}, \frac{1}{2}$
4	$0, \frac{1}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$0, \frac{1}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{11}{24}$	-12	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 5 \pmod{24}$							
8	$0, \frac{1}{24}$	4	$\frac{1}{24}, \frac{5}{24}$	4	$0, \frac{1}{24}$	4	$\frac{1}{12}, \frac{5}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{5}{24}$	4	$0, \frac{1}{24}$	4	$\frac{1}{6}, \frac{5}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{5}{24}$
8	$0, \frac{1}{24}$	4	$\frac{1}{24}, \frac{7}{24}$	4	$0, \frac{1}{24}$	4	$\frac{1}{12}, \frac{7}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{7}{24}$	4	$0, \frac{1}{24}$	4	$\frac{1}{6}, \frac{7}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{7}{24}$
4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{5}{24}, \frac{3}{8}$	4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{3}{8}$
4	$0, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{3}{8}$	4	$\frac{1}{12}, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{3}{8}$
4	$\frac{1}{6}, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{3}{8}$	4	$\frac{1}{8}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{3}{8}$
4	$0, \frac{1}{24}$	-4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{24}, \frac{5}{12}$
-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{5}{24}, \frac{5}{12}$
8	$\frac{1}{8}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{5}{12}$	4	$0, \frac{1}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$
-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{5}{12}$
-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$
8	$0, \frac{1}{24}$	-4	$\frac{5}{24}, \frac{11}{24}$	-8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{24}, \frac{11}{24}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{24}, \frac{11}{24}$	8	$0, \frac{5}{24}$	4	$\frac{5}{24}, \frac{11}{24}$
8	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{11}{24}$	8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{11}{24}$
8	$0, \frac{1}{24}$	-4	$\frac{7}{24}, \frac{11}{24}$	-8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{11}{24}$
-8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{11}{24}$	8	$0, \frac{5}{24}$	4	$\frac{7}{24}, \frac{11}{24}$
8	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{7}{24}, \frac{11}{24}$	8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{7}{24}, \frac{11}{24}$
8	$0, \frac{1}{24}$	4	$\frac{7}{24}, \frac{11}{24}$	8	$\frac{1}{12}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{11}{24}$
8	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{11}{24}$	4	$0, \frac{5}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{12}, \frac{11}{24}$	4	$0, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{7}{24}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$	-4	$\frac{5}{24}, \frac{5}{12}$	4	$\frac{5}{12}, \frac{11}{24}$
-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{5}{12}, \frac{11}{24}$	4	$0, \frac{1}{24}$	-4	$\frac{5}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{5}{24}, \frac{1}{2}$	8	$\frac{1}{8}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{1}{2}$
4	$0, \frac{1}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$	4	$0, \frac{5}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{5}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$0, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{7}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{7}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 7 \pmod{24}$							
8	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{5}{24}$
4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{1}{6}, \frac{5}{24}$	8	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{1}{4}$
4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{5}{24}, \frac{1}{4}$
4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{1}{4}$	6	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{12}, \frac{7}{24}$
4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{7}{24}$
4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{4}, \frac{7}{24}$
-4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{1}{4}, \frac{7}{24}$	-2	$\frac{1}{12}, \frac{5}{24}$	6	$\frac{1}{4}, \frac{7}{24}$
-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{1}{12}, \frac{1}{4}$	8	$\frac{1}{4}, \frac{7}{24}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$0, \frac{1}{24}$	4	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{5}{24}, \frac{3}{8}$
8	$\frac{1}{24}, \frac{1}{12}$	2	$\frac{1}{12}, \frac{5}{12}$	8	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{5}{12}$
8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{24}, \frac{5}{12}$
-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{5}{12}$
-2	$\frac{1}{12}, \frac{5}{24}$	6	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{5}{12}$
8	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{4}, \frac{5}{12}$	8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{4}, \frac{5}{12}$
-8	$\frac{1}{12}, \frac{5}{24}$	12	$\frac{1}{4}, \frac{5}{12}$	-8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{1}{4}, \frac{5}{12}$
8	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{1}{4}, \frac{5}{12}$	8	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{4}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{12}, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{5}{12}$	2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$
2	$\frac{1}{12}, \frac{7}{24}$	-6	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	2	$\frac{5}{24}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{4}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{4}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{1}{4}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{1}{4}$	8	$\frac{1}{4}, \frac{11}{24}$
8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{11}{24}$	8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{7}{24}, \frac{11}{24}$
-8	$\frac{1}{12}, \frac{5}{24}$	-12	$\frac{7}{24}, \frac{11}{24}$	-8	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{11}{24}$
8	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{7}{24}, \frac{11}{24}$	8	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{11}{24}$
8	$\frac{1}{12}, \frac{7}{24}$	12	$\frac{7}{24}, \frac{11}{24}$	8	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{11}{24}$
8	$\frac{1}{4}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{11}{24}$	4	$0, \frac{7}{24}$	4	$\frac{1}{3}, \frac{11}{24}$
4	$\frac{1}{8}, \frac{7}{24}$	4	$\frac{3}{8}, \frac{11}{24}$	6	$\frac{1}{24}, \frac{1}{6}$	2	$\frac{5}{12}, \frac{11}{24}$
12	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{5}{12}, \frac{11}{24}$	12	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{12}, \frac{11}{24}$
6	$\frac{1}{24}, \frac{1}{4}$	2	$\frac{5}{12}, \frac{11}{24}$	12	$\frac{1}{12}, \frac{1}{4}$	8	$\frac{5}{12}, \frac{11}{24}$
3	$\frac{1}{24}, \frac{7}{24}$	2	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
6	$\frac{1}{6}, \frac{7}{24}$	2	$\frac{5}{12}, \frac{11}{24}$	6	$\frac{1}{4}, \frac{7}{24}$	2	$\frac{5}{12}, \frac{11}{24}$
6	$\frac{1}{12}, \frac{5}{12}$	8	$\frac{5}{12}, \frac{11}{24}$	12	$\frac{1}{6}, \frac{5}{12}$	8	$\frac{5}{12}, \frac{11}{24}$
6	$\frac{5}{24}, \frac{5}{12}$	2	$\frac{5}{12}, \frac{11}{24}$	12	$\frac{1}{4}, \frac{5}{12}$	8	$\frac{5}{12}, \frac{11}{24}$
8	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{12}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{5}{24}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$	-2	$\frac{1}{12}, \frac{5}{24}$	-6	$\frac{7}{24}, \frac{1}{2}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
-4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{1}{2}$
4	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{7}{24}$	-12	$\frac{7}{24}, \frac{1}{2}$
8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{1}{12}, \frac{5}{24}$	-12	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{5}{24}, \frac{1}{4}$	-4	$\frac{5}{12}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{12}, \frac{7}{24}$	12	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{4}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{24}, \frac{5}{12}$	12	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{5}{24}, \frac{5}{12}$	4	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{5}{12}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{4}$	-8	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{7}{24}$	-6	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
2	$\frac{1}{24}, \frac{5}{12}$	-6	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{5}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{5}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{4}, \frac{5}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{11}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{7}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$				
$ D \equiv 11 \pmod{24}$							
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{3}$
4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{24}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{1}{3}, \frac{5}{12}$	-4	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{11}{24}$
-8	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{7}{24}, \frac{11}{24}$	8	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{7}{24}, \frac{11}{24}$
-4	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{1}{3}, \frac{11}{24}$	4	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{1}{3}, \frac{11}{24}$
-4	$\frac{7}{24}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{11}{24}$	4	0, $\frac{1}{12}$	8	$\frac{3}{8}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{3}{8}, \frac{11}{24}$	-4	$\frac{1}{12}, \frac{1}{4}$	8	$\frac{3}{8}, \frac{11}{24}$
-4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{12}, \frac{11}{24}$	-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{5}{12}, \frac{11}{24}$
$ D \equiv 13 \pmod{24}$							
8	0, $\frac{1}{24}$	-4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{1}{24}, \frac{1}{12}$	-12	$\frac{1}{12}, \frac{1}{6}$
12	0, $\frac{1}{12}$	8	$\frac{1}{12}, \frac{5}{24}$	4	0, $\frac{1}{12}$	8	$\frac{1}{6}, \frac{5}{24}$
-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{5}{24}$	8	0, $\frac{1}{24}$	4	$\frac{1}{6}, \frac{1}{4}$
-8	$\frac{1}{24}, \frac{1}{12}$	12	$\frac{1}{6}, \frac{1}{4}$	-8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{1}{4}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
12	$0, \frac{1}{12}$	-8	$\frac{5}{24}, \frac{1}{4}$	-12	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{5}{24}, \frac{1}{4}$
8	$0, \frac{1}{24}$	4	$\frac{1}{24}, \frac{7}{24}$	4	$0, \frac{1}{12}$	8	$\frac{1}{12}, \frac{7}{24}$
4	$0, \frac{1}{24}$	4	$\frac{1}{6}, \frac{7}{24}$	-4	$0, \frac{1}{12}$	8	$\frac{1}{6}, \frac{7}{24}$
-2	$\frac{1}{24}, \frac{1}{12}$	6	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{7}{24}$
4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{7}{24}$	8	$0, \frac{1}{24}$	4	$\frac{5}{24}, \frac{7}{24}$
-8	$\frac{1}{24}, \frac{1}{12}$	12	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{7}{24}$
8	$0, \frac{5}{24}$	4	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{1}{12}, \frac{5}{24}$	12	$\frac{5}{24}, \frac{7}{24}$
8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{7}{24}$	4	$0, \frac{1}{12}$	8	$\frac{1}{4}, \frac{7}{24}$
-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{4}, \frac{7}{24}$	4	$0, \frac{1}{4}$	8	$\frac{1}{4}, \frac{7}{24}$
4	$\frac{1}{6}, \frac{1}{4}$	8	$\frac{1}{4}, \frac{7}{24}$	8	$0, \frac{1}{24}$	4	$\frac{1}{8}, \frac{3}{8}$
-8	$\frac{1}{24}, \frac{1}{12}$	12	$\frac{1}{8}, \frac{3}{8}$	8	$0, \frac{1}{24}$	4	$\frac{1}{6}, \frac{5}{12}$
-8	$\frac{1}{24}, \frac{1}{12}$	12	$\frac{1}{6}, \frac{5}{12}$	-8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{5}{12}$
12	$0, \frac{1}{12}$	-8	$\frac{5}{24}, \frac{5}{12}$	-12	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{5}{24}, \frac{5}{12}$
4	$0, \frac{1}{12}$	-8	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{7}{24}, \frac{5}{12}$
4	$0, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{6}, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{5}{12}$
4	$0, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$
8	$0, \frac{1}{24}$	4	$\frac{1}{24}, \frac{11}{24}$	4	$0, \frac{1}{12}$	8	$\frac{1}{12}, \frac{11}{24}$
4	$0, \frac{1}{24}$	4	$\frac{1}{6}, \frac{11}{24}$	-4	$0, \frac{1}{12}$	8	$\frac{1}{6}, \frac{11}{24}$
-2	$\frac{1}{24}, \frac{1}{12}$	6	$\frac{1}{6}, \frac{11}{24}$	-4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{11}{24}$	8	$0, \frac{1}{24}$	4	$\frac{5}{24}, \frac{11}{24}$
-8	$\frac{1}{24}, \frac{1}{12}$	12	$\frac{5}{24}, \frac{11}{24}$	-8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{11}{24}$
8	$0, \frac{5}{24}$	4	$\frac{5}{24}, \frac{11}{24}$	8	$\frac{1}{12}, \frac{5}{24}$	12	$\frac{5}{24}, \frac{11}{24}$
8	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{5}{24}, \frac{11}{24}$	4	$0, \frac{1}{12}$	8	$\frac{1}{4}, \frac{11}{24}$
-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{4}, \frac{11}{24}$	4	$0, \frac{1}{4}$	8	$\frac{1}{4}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{1}{4}$	8	$\frac{1}{4}, \frac{11}{24}$	4	$0, \frac{1}{12}$	8	$\frac{5}{12}, \frac{11}{24}$
-4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$0, \frac{1}{4}$	8	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{1}{4}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$0, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{7}{24}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{8}, \frac{3}{8}$	8	$\frac{5}{12}, \frac{11}{24}$
4	$0, \frac{5}{12}$	8	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{6}, \frac{5}{12}$	8	$\frac{5}{12}, \frac{11}{24}$
8	$0, \frac{1}{24}$	-4	$\frac{1}{12}, \frac{1}{2}$	-8	$\frac{1}{24}, \frac{1}{12}$	-12	$\frac{1}{12}, \frac{1}{2}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$0, \frac{1}{12}$	-8	$\frac{5}{24}, \frac{1}{2}$	-4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{5}{24}, \frac{1}{2}$
8	$0, \frac{1}{24}$	-4	$\frac{1}{4}, \frac{1}{2}$	-8	$\frac{1}{24}, \frac{1}{12}$	-12	$\frac{1}{4}, \frac{1}{2}$
-8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{4}, \frac{1}{2}$	8	$0, \frac{5}{24}$	-4	$\frac{1}{4}, \frac{1}{2}$
8	$\frac{1}{12}, \frac{5}{24}$	-12	$\frac{1}{4}, \frac{1}{2}$	8	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{1}{4}, \frac{1}{2}$
-8	$\frac{1}{24}, \frac{1}{4}$	-12	$\frac{1}{4}, \frac{1}{2}$	-8	$\frac{5}{24}, \frac{1}{4}$	-12	$\frac{1}{4}, \frac{1}{2}$
4	$0, \frac{1}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$	-4	$0, \frac{1}{12}$	-8	$\frac{7}{24}, \frac{1}{2}$
-2	$\frac{1}{24}, \frac{1}{12}$	-6	$\frac{7}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{7}{24}, \frac{1}{2}$	4	$0, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$
2	$\frac{1}{12}, \frac{5}{24}$	-6	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$
-4	$0, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{1}{4}$	-6	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{1}{4}$	-8	$\frac{7}{24}, \frac{1}{2}$	-2	$\frac{5}{24}, \frac{1}{4}$	-6	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$
-4	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{7}{24}, \frac{1}{2}$
8	$0, \frac{1}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{1}{24}, \frac{1}{12}$	-12	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{5}{12}, \frac{1}{2}$	8	$0, \frac{5}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{12}, \frac{5}{24}$	-12	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{1}{24}, \frac{1}{4}$	-12	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{5}{24}, \frac{1}{4}$	-12	$\frac{5}{12}, \frac{1}{2}$
8	$0, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{12}, \frac{7}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{1}{24}, \frac{5}{12}$	-12	$\frac{5}{12}, \frac{1}{2}$	-8	$\frac{5}{24}, \frac{5}{12}$	-12	$\frac{5}{12}, \frac{1}{2}$
-8	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{5}{12}, \frac{1}{2}$	4	$0, \frac{1}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
-4	$0, \frac{1}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{1}{12}$	-6	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{12}, \frac{1}{6}$	-8	$\frac{11}{24}, \frac{1}{2}$
4	$0, \frac{5}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	2	$\frac{1}{12}, \frac{5}{24}$	-6	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{5}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$0, \frac{1}{4}$	-8	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{1}{24}, \frac{1}{4}$	-6	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{1}{6}, \frac{1}{4}$	-8	$\frac{11}{24}, \frac{1}{2}$
-2	$\frac{5}{24}, \frac{1}{4}$	-6	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{7}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{12}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{1}{8}, \frac{3}{8}$	-8	$\frac{11}{24}, \frac{1}{2}$
-4	$0, \frac{5}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{1}{24}, \frac{5}{12}$	-6	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{1}{6}, \frac{5}{12}$	-8	$\frac{11}{24}, \frac{1}{2}$	-2	$\frac{5}{24}, \frac{5}{12}$	-6	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{7}{24}, \frac{5}{12}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
4	$\frac{1}{12}, \frac{11}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{5}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$
4	$\frac{1}{4}, \frac{11}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{5}{12}, \frac{11}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 17 \pmod{24}$							
8	$0, \frac{1}{24}$	4	$\frac{1}{24}, \frac{5}{24}$	4	$0, \frac{1}{24}$	4	$\frac{1}{12}, \frac{7}{24}$
4	$0, \frac{1}{24}$	-4	$\frac{7}{24}, \frac{1}{3}$	-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{7}{24}, \frac{1}{3}$
4	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{7}{24}, \frac{3}{8}$	-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{5}{24}, \frac{5}{12}$
8	$\frac{1}{8}, \frac{5}{24}$	-4	$\frac{1}{4}, \frac{5}{12}$	-4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{5}{12}$
-8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{11}{24}$	8	$0, \frac{7}{24}$	4	$\frac{7}{24}, \frac{11}{24}$
4	$0, \frac{5}{24}$	4	$\frac{5}{12}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$	-4	$\frac{7}{24}, \frac{1}{3}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$0, \frac{1}{24}$	-4	$\frac{5}{24}, \frac{1}{2}$	-4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{5}{24}, \frac{1}{2}$
-4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{1}{2}$	4	$0, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{11}{24}, \frac{1}{2}$	-4	$\frac{7}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$
$ D \equiv 19 \pmod{24}$							
2	$\frac{1}{24}, \frac{1}{12}$	6	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{1}{6}, \frac{7}{24}$
-4	$\frac{1}{24}, \frac{1}{12}$	12	$\frac{1}{4}, \frac{7}{24}$	-4	$0, \frac{5}{24}$	4	$\frac{1}{4}, \frac{7}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{3}$	8	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{1}{6}, \frac{5}{12}$
-6	$0, \frac{1}{24}$	2	$\frac{5}{24}, \frac{5}{12}$	-12	$0, \frac{1}{24}$	4	$\frac{7}{24}, \frac{5}{12}$
12	$\frac{1}{24}, \frac{1}{4}$	4	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{1}{3}, \frac{5}{12}$
-4	$0, \frac{1}{24}$	4	$\frac{1}{4}, \frac{11}{24}$	-4	$\frac{1}{12}, \frac{5}{24}$	4	$\frac{1}{3}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{1}{3}, \frac{11}{24}$	4	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{5}{12}$	8	$\frac{5}{12}, \frac{11}{24}$	-8	$0, \frac{1}{24}$	4	$\frac{1}{12}, \frac{1}{2}$
8	$\frac{1}{24}, \frac{1}{12}$	-12	$\frac{5}{12}, \frac{1}{2}$	-8	$0, \frac{5}{24}$	4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{5}{12}, \frac{1}{2}$				
$ D \equiv 23 \pmod{24}$							
4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{1}{6}, \frac{5}{24}$	4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{4}$
4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{1}{4}$	4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{6}, \frac{7}{24}$
8	$\frac{1}{8}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{7}{24}$	4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{1}{4}, \frac{7}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{3}$	4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{1}{3}$
4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{1}{3}$	4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{5}{24}, \frac{3}{8}$
4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{5}{24}, \frac{3}{8}$	4	$\frac{5}{24}, \frac{7}{24}$	8	$\frac{1}{3}, \frac{3}{8}$
8	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{1}{6}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{12}$	4	$\frac{5}{24}, \frac{5}{12}$

Table 5.12: $e = 24$ (continued)

c_1	q_1, q_2	c_2	q_3, q_4	c_1	q_1, q_2	c_2	q_3, q_4
8	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{1}{4}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{6}$	-4	$\frac{7}{24}, \frac{5}{12}$
4	$\frac{1}{24}, \frac{5}{24}$	-8	$\frac{7}{24}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{4}$	-4	$\frac{7}{24}, \frac{5}{12}$
8	$\frac{1}{24}, \frac{1}{8}$	-4	$\frac{1}{3}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{7}{24}$	-4	$\frac{1}{3}, \frac{5}{12}$
8	$\frac{1}{8}, \frac{7}{24}$	-4	$\frac{1}{3}, \frac{5}{12}$	4	$\frac{1}{24}, \frac{1}{8}$	2	$\frac{5}{24}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{11}{24}$	8	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{11}{24}$
4	$\frac{1}{6}, \frac{7}{24}$	4	$\frac{1}{3}, \frac{11}{24}$	4	$\frac{1}{4}, \frac{7}{24}$	4	$\frac{1}{3}, \frac{11}{24}$
-4	$\frac{7}{24}, \frac{1}{3}$	4	$\frac{1}{3}, \frac{11}{24}$	4	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{3}{8}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{1}{6}$	8	$\frac{3}{8}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{1}{4}$	8	$\frac{3}{8}, \frac{11}{24}$
2	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{3}{8}, \frac{11}{24}$	4	$\frac{1}{8}, \frac{7}{24}$	4	$\frac{3}{8}, \frac{11}{24}$
4	$\frac{1}{12}, \frac{1}{3}$	8	$\frac{3}{8}, \frac{11}{24}$	4	$\frac{1}{12}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{11}{24}$
4	$\frac{1}{24}, \frac{1}{6}$	4	$\frac{5}{24}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{5}{24}$	8	$\frac{5}{24}, \frac{1}{2}$
4	$\frac{1}{24}, \frac{1}{12}$	-4	$\frac{7}{24}, \frac{1}{2}$	4	$\frac{5}{24}, \frac{7}{24}$	-8	$\frac{3}{8}, \frac{1}{2}$
8	$\frac{1}{24}, \frac{1}{8}$	4	$\frac{5}{12}, \frac{1}{2}$	4	$\frac{1}{24}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$
8	$\frac{1}{8}, \frac{7}{24}$	4	$\frac{5}{12}, \frac{1}{2}$	8	$\frac{5}{24}, \frac{3}{8}$	-4	$\frac{5}{12}, \frac{1}{2}$
4	$\frac{1}{6}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{1}{4}, \frac{7}{24}$	-4	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{7}{24}, \frac{1}{3}$	-4	$\frac{11}{24}, \frac{1}{2}$	4	$\frac{5}{24}, \frac{5}{12}$	-4	$\frac{11}{24}, \frac{1}{2}$
-4	$\frac{7}{24}, \frac{11}{24}$	-8	$\frac{11}{24}, \frac{1}{2}$				

5.4 Proof of One Formula

We give the details of the proof of one of the formulae in Table 5.2 based on the methods used by the computer programs. On page 84, the last entry in the left hand column of the section $|D| \equiv 13 \pmod{24}$ contains the formula

$$h(-3|D|) = 2 \sum_{\frac{1}{12}|D| < n < \frac{1}{3}|D|} \left(\frac{D}{n} \right) - 2 \sum_{\frac{5}{12}|D| < n < \frac{1}{2}|D|} \left(\frac{D}{n} \right), \quad |D| \equiv 13 \pmod{24}. \quad (5.20)$$

Using short character sum symmetries and $|D| \equiv 13 \pmod{24}$, we obtain the

following parametric equations for the “shortest” short character sums $S(D, r, 12)$

that we need, since the least common denominator of q_1, q_2, q_3 and q_4 is 12:

$$\begin{array}{llll} S(D, 1, 12) = k_1 & S(D, 2, 12) = -k_1 & S(D, 3, 12) = k_1 & S(D, 4, 12) = k_2 \\ S(D, 5, 12) = -k_2 & S(D, 6, 12) = -k_1 & S(D, 7, 12) = -k_1 & S(D, 8, 12) = -k_2 \\ S(D, 9, 12) = k_2 & S(D, 10, 12) = k_1 & S(D, 11, 12) = -k_1 & S(D, 12, 12) = k_1 \end{array}$$

where $k_1, k_2 \in \mathbb{Z}$ are parameters.

From Lemma 5.1 we have

$$\begin{aligned} h(-3|D|) &= 2 \sum_{1 \leq a \leq 3/2} \left(\sum_{a \leq k \leq 3/2} \left(\frac{-3}{k} \right) \right) S(D, a, 3) \\ &= 2S(D, 1, 3) \\ &= 2S(D, 1, 12) + 2S(D, 2, 12) + 2S(D, 3, 12) + 2S(D, 4, 12). \end{aligned}$$

Using the parametric equations for the short character sums $S(D, r, 12)$, we obtain

$$h(-3|D|) = 2(k_1) + 2(-k_1) + 2(k_1) + 2(k_2) = 2k_1 + 2k_2$$

Similarly, using the parametric equations for the short character sums $S(D, r, 12)$

in the right hand side of (5.20), we obtain

$$\begin{aligned} & 2 \sum_{\frac{1}{12}|D| < n < \frac{1}{3}|D|} \left(\frac{D}{n} \right) - 2 \sum_{\frac{5}{12}|D| < n < \frac{1}{2}|D|} \left(\frac{D}{n} \right) \\ &= 2(S(D, 2, 12) + S(D, 3, 12) + S(D, 4, 12)) - 2S(D, 6, 12) \\ &= 2(-k_1) + 2(k_1) + 2(k_2) - 2(-k_1) \\ &= 2k_1 + 2k_2. \end{aligned}$$

This completes the proof of (5.20) $\square$.

5.5 One Numerical Example

In this section we use one of the formulae of Table 5.4 to calculate a class number.

On page 109 the third entry in the right column of the $e = 5$ table is the formula

$$h(-5|D|) = -4 \sum_{\frac{1}{10}|D| < n < \frac{1}{5}|D|} \left(\frac{D}{n} \right) + 2 \sum_{\frac{3}{10}|D| < n < \frac{1}{2}|D|} \left(\frac{D}{n} \right), \quad |D| \equiv 3 \pmod{40}.$$

Since 5 is a fundamental discriminant, we must have $D < 0$. Thus if we choose $D = -43$ it satisfies the congruence $|D| \equiv 3 \pmod{40}$, and we have

$$\begin{aligned} h(-5|-43|) &= -4 \sum_{\frac{1}{10}|-43| < n < \frac{1}{5}|-43|} \left(\frac{-43}{n} \right) + 2 \sum_{\frac{3}{10}|-43| < n < \frac{1}{2}|-43|} \left(\frac{-43}{n} \right) \\ h(-215) &= -4 \left[\left(\frac{-43}{5} \right) + \left(\frac{-43}{6} \right) + \left(\frac{-43}{7} \right) + \left(\frac{-43}{8} \right) \right] \\ &\quad + 2 \left[\left(\frac{-43}{13} \right) + \left(\frac{-43}{14} \right) + \left(\frac{-43}{15} \right) + \left(\frac{-43}{16} \right) + \left(\frac{-43}{17} \right) \right. \\ &\quad \left. + \left(\frac{-43}{18} \right) + \left(\frac{-43}{19} \right) + \left(\frac{-43}{20} \right) + \left(\frac{-43}{21} \right) \right] \\ &= -4[-1 + 1 - 1 - 1] + 2[1 + 1 + 1 + 1 + 1 - 1 - 1 - 1 + 1] \\ &= 14. \end{aligned}$$

This result corresponds with the value calculated by the Maple routine $h(d)$ and the value listed in the tables in [5].

Conclusion

We have extended the work started in [18] and [26] by looking at two term class number formulae of Dirichlet type. Our computer search found 8202 solutions within the computational bounds $1 \leq e \leq 30$ and $1 \leq r \leq 30$.

The programs could easily be modified to increase the limits of search or the number of short character sums involved. We would expect the number of N -term class number formulae of Dirichlet type to increase rapidly with N .

In our results we noticed that some formulae had the same values of c_1 , q_1 , q_2 and c_2 which implies that we are dealing with short sums over different ranges of q_3 and q_4 that were equal (there were similar instances with different ranges of q_1 and q_2 that were equal). These imply the existence of vanishing two term linear combinations of short character sums. A natural extension would be to use Theorem 5.3 and a new program to extend the work of Johnson and Mitchell and look at generalized symmetries in short character sums.

A second place where the work could be extended using the existing algorithms is finding class number formulae in terms of the "basis" of the sums $S(D, k, n)$. Using Lemmas 5.1 and 5.2 and the symmetries based on Theorem 5.3 one could write the class number as a linear combination of the parameters in the parametric equations for the sums $S(D, k, n)$. Each of the parameters themselves represent one of the sums $S(D, k, n)$, so we would have a class number formula based on a linear combination

of short sums, the number of which depends on the number of parameters in the parametric equations for the sums $S(D, k, n)$.

Thus we have extended the work that began in [18] and [26]. Along the way we have opened up the path for new work to be done.

Appendix A

Common Maple Routines

The Appendices contain the Maple code used to do three separate jobs:

1. the *WilliamsPaper* package was used to reproduce the results in [18],
2. the *Book* package was used to reproduce the results in [26] and [27],
3. the *Thesis* package was used to produce the two term class number formulae of the Dirichlet type.

All three packages make use of some of Maple's built in functions and packages.

Some of these are

- **option remember** allows Maple to remember values that it has calculated.

Thus if you call the routine `h(-7)` at one point in time, Maple runs the routine and returns the desired result. Later, if `h(-7)` is called again, it remembers that it was called and returns the same value that it did the first time without having to rerun the routine. This saves computational time.

- **with(numtheory)** loads the Maple package of number theory routines. Routines for calculating the Legendre and Jacobi symbols are built into this package as well as calculating a list of unique primes dividing an integer.
- **with(linearalgebra)** loads the Maple package of matrix routines used to solve a linear system of equations.

What follows in the rest of this appendix are routines that were used by more than one of the packages. The other three appendices then contain the routines that are unique to the given package.

A.1 Class Number

The following routine calculates the class number for a given negative discriminant by counting the number of reduced binary quadratic forms of that discriminant. This routine was used by all three packages.

```
h := proc(d)
local a,b,c,count,k;
option remember;
if d >= 0 then return "non negative" end if;
count := 0;
if d mod 4 = 2 or d mod 4 = 3 then
    return "not a disc"
end if;

#    We know that  $b \equiv d \pmod{2}$ 

for b from d mod 2 to evalf(sqrt(-1*d/3)) by 2 do
    k:= (b*b - d)/4;
```

```

for a from max(1,b) to evalf(sqrt(k)) do
  if k mod a = 0 then
    c := k/a;
    if gcd(gcd(a,b),c) = 1 then
      if a = c or a = b then
        count := count + 1;
      else
        if b = 0 then
          count := count + 1;
        else
          count := count + 2;
        end if;
      end if;
    end if;
  end if;
end do;
return count;
end proc;

```

A.2 Product of Primes

The following routine calculates the products of the unique primes dividing a number.

This is used to calculate the modulus of the congruence for the class number formulae of Dirichlet type. This routine was used in all three packages.

```

prodprime := proc(n)
local hold,i;
option remember;
with(numtheory);
hold := 1;
for i from 1 to nops(factorset(n)) do
  hold := hold*factorset(n)[i];
end do;
return hold;

```

```
end proc;
```

A.3 Nextmodprime and Nextmoddisc

The following routines inputs two values p (or D) and m and returns the next prime number congruent to $p \bmod m$ (for *WilliamsPaper*) or the next fundamental discriminant congruent to $d \bmod m$ (for *Book* and *Thesis*).

```
nextmodprime := proc(p,m)
local hold;
option remember;
hold := p+m;
while not(isprime(hold)) do
    hold:= hold+m;
end do;
return(hold);
end proc;
```

```
nextmoddisc := proc(D,m)
local hold;
option remember;
hold := D + m;
while not(isfundamental(hold)) do
    hold := hold + m;
end do;
return(hold);
end proc;
```

A.4 Isfundamental

The following routine returns *true* if d is a fundamental discriminant, *false* otherwise.

The routine is used by the *Book* and *Thesis* packages.

```
isfundamental := proc(d)
local hold;
option remember;
if d mod 4 = 0 then
    hold := d/4;
    return( (issqrfree(hold)) and
            ( (hold mod 4 = 2) or (hold mod 4 = 3) ) );
else
    if d mod 4 = 1 then
        return(issqrfree(d));
    else
        return(false);
    end if;
end if;
end proc;
```

A.5 Kron

The following routine calculates the value of the Kroneker symbol $\left(\frac{D}{n}\right)$. The routine is used by all three packages.

```
kron := proc(D,n)
local hold,N;
option remember;
if gcd(D,n) > 1 or D = 0 or n = 0 then
    return(0);
end if;
hold := 1;
N := n;
```

```

while N mod 2 = 0 do
  if D mod 8 = 5 then
    hold := -1*hold;
  end if;
  N := N/2;
end do;
hold := hold*jacobi(D,N);
return(hold);
end proc:

```

A.6 Sumleg and Sumkron

The following routines calculates the sum of the Legendre symbol $\left(\frac{n}{p}\right)$ for a prime p for the *WilliamsPaper* package and similarly the sum of the Kroneker symbol $\left(\frac{D}{n}\right)$ for the *Book* and *Thesis* packages. In sumleg the values p , $denom = ld$ and k are sent to the routine and the Legendre symbols are summed over the range $\frac{(k-1)p}{denom} < n < \frac{kp}{denom}$ as in [18]. In sumkron the values D , q_1 and q_2 are sent to the routine and the Kroneker symbols are summed over the range $q_1|D| < n < q_2|D|$ as in [26]. For the *Thesis* package this routine would be called twice for the two sums.

```

sumleg := proc(p,denom, k)
local s,n,b,e;
option remember;
s := 0;
b := ceil(p*(k-1)/denom);
e := floor(p*k/denom);
for n from b to e do
  s := s + legendre(n,p);
end do;
return(s);
end proc:

```

```

sumkron := proc(D,q1,q2)
local s, n, b, e;
option remember;
s := 0;
b := ceil(abs(D)*q1);
e := floor(abs(D)*q2);
for n from b to e do
    s := s + kron(D,n);
end do;
return(s);
end proc;

```

A.7 JandM

This calculates the parametric equations for the $S(D, k, l)$ for $|D| \equiv r \pmod{m}$ using Theorem 5.3 and the other relations discussed in §5.1. This routine is used in the *Book* and *Thesis* packages. The *WilliamsPaper* package uses a similar routine, but instead of using the Kronecker symbol, it uses the Legendre symbol, and Theorem 4.1 is used instead of Theorem 5.3.

```

JandM := proc(l,r,m)
local i,j,a,b,c,syms,A,B,numberofrows,p,q,fact,count;
option remember;
with(LinearAlgebra);
with(numtheory);
p := r+m;
while (not(isprime(p))) do
    p := p + m;
end do;
numberofrows := 1+floor(l/2);

```

```

fact := factorset(l);
for i from 1 to nops(fact) do
    numberofrows := numberofrows + 1/fact[i];
end do;
A := Matrix(numberofrows,1,0);
B := Matrix(numberofrows,1,0);
count := 0;
for i from 1 to l/2 do
    A[i,i] := 1;
    A[i,l-i+1] := -1*legendre(-1,p);
    count := count + 1;
end do;
count := count + 1;
for i from 1 to l do
    A[count,i] := 1;
end do;
for i from 1 to nops(fact) do
    q := fact[i];
    for j from 0 to l/q-1 do
        count := count + 1;
        for a from 1 to q do
            A[count,j*q+a] := legendre(q,p);
        end do;
        for a from 0 to floor((q-1)/2) do
            A[count,a*l/q+j+1] := A[count,a*l/q+j+1] - 1;
        end do;
        for a from 1 to floor(q/2) do
            A[count,a*l/q-j] := A[count,a*l/q-j] - legendre(-1,p);
        end do;
    end do;
end do;
return(LinearSolve(A,B));
end proc:

```


A.8 ClassSum

This routine uses the parametric equations for the short sums found in JandM along with Lemmas 5.1 and 5.2 to write the class number in terms of the parametric equations for the sums $S(D, k, n)$. This routine is used in the *Book* and *Thesis* packages. The program listed below is actually the analogous program used in the *WilliamsPaper* package, the difference being the use of the Legendre symbol, and the use of Theorems 5.1 and 5.2 instead of the Lemmas.

```

ClassSum := proc(d,l)
local i,j,c,A;
option remember;
with(numtheory);
A := array(1..l);
for i from 1 to l do
    A[i] := 0;
end do;
if d mod 4 = 3 then
    for i from 0 to d-1 do
        c := 0;
        for j from i+1 to d do
            c := c + jacobi(-1*d,j);
        end do;
        for j from 1 to l/d do
            A[i*l/d + j] := c;
        end do;
    end do;
else
    for i from 0 to d/2-1 do
        c := 0;
        for j from 1 to i do
            c := c + 2*Thesis[kron](d,j);
        end do;
        for j from 1 to l/d do

```

```
        A[i*l/d + j] := c;  
    end do;  
end do;  
end if;  
return(A);  
end proc;
```

Appendix B

The WilliamsPaper Package

B.1 Iscoeff

The following checks to see if there is a possible class number formula of Dirichlet type. If, after a number of iterations, a possible class number formula of Dirichlet type is found the routine returns *true*. Otherwise the routine returns *false*.

```
iscoeff := proc(d,l,k,r)
local check,p,q,s,i;
option remember;
q := prodprime(d*l)*4;
if isprime(r) and r > 3 then
    p := r;
else
    p := nextmodprime(r,q);
end if;
s := sumleg(p,l*d,k);
if s = 0 then return(false); end if;
check := h(-1*d*p)/s;
```

Through experimentation we found that after 10 passes short lived false formulae were eliminated.

```
for i from 1 to 10 do
```

```

    p := nextmodprime(p,q);
    s := sumleg(p,l*d,k);
    if s = 0 then return(false); end if;
    if not(h(-1*d*p)/s = check) then return(false); end if;
end do;
return(true);
end proc:

```

B.2 Formula

The following routine takes, as input, d the discriminant of a binary quadratic form. The routine then checks through the limits given in [18] for possible class number formulae. When a possibility is found, it is sent to proof which uses the symmetries in [19] and the class number formula to check if it is true. All true formulae are returned by the routine in a list.

```

formula := proc(d)
local l, k, r, m, lmax, kmax,c,p,rstart,rstep;
if d mod 4 = 2 then return() end if;
lmax := floor(30/d);
for l from 1 to lmax do
    m := 4*prodprime(l*d);
    if d mod 4 = 0 then
        rstart := 3;
        rstep := 4;
        if d = 4 then rstart := 1 end if;
    else
        if not(issqrfree(d)) then return() end if;
        rstep := 4;
        if -1*d mod 4 = 1 then
            rstart := 1;
        else
            rstart := 3;
        end if;
    end if;
end for;
end proc;

```

```

        end if;
    end if;
    for r from rstart to m by rstep do
        if gcd(r,l*d) = 1 then
            kmax := floor((l*d+1)/2);
            for k from 1 to kmax do
                if iscoeff(d,l,k,r) then
                    p := nextmodprime(r,m);
                    c := h(-1*d*p)/sumleg(p, l*d,k);
                    print(d,l,k,c,r,m,proof(d,l,k,c,r,m));
                end if;
            end do;
        end if;
    end do;
end do;
end proc:

```

B.3 Proof

This works out proofs of class number formulas by comparing the class number in terms of the parametric equations on the $s(p, k, n)$ to the formula found.

```

proof := proc(d,l,k,c,r,m)
local A,B,i,j,check,L;
option remember;
if d*l mod 2 = 1 then
    L := 2*l;
else
    L := l;
end if;
if d = 1 then
    A := array(1..L);
    for i from 1 to L do
        A[i] := 0;
    end do;
    for i from 0 to lcm(8,m)/m-1 do

```

```

    for j from 1 to L/2 do
      if r+i*m mod 8 = 3 then
        A[j] := 1/3;
      else
        A[j] := 1;
      end if;
    end do;
    B := JandM(d*L,r+i*m,lcm(8,m));
    check := c*B[k,1];
    if L>1 then
      check := c*(B[2*k-1,1]+B[2*k,1]);
    end if;
    for j from 1 to d*L do
      check := check - A[j]*B[j,1];
    end do;
    if check<>0 then
      return(false);
    end if;
  end do;
  return(true);
else
  A := ClassSum(d,d*L);
  B := JandM(d*L,r,m);
  check := c*B[k,1];
  for i from 1 to d*L do
    check := check - A[i]*B[i,1];
  end do;
  if check=0 then
    return(true);
  else
    return(false);
  end if;
end if;
end proc:

```

Appendix C

The Book Package

C.1 Iscoeff

The following routine checks to see if there is a class number formula of Dirichlet type for a given e , q_1 , q_2 , s_0 and m . If so, *true* is returned.

```
iscoeff := proc(e,q1,q2,s0)
local check, D, m, i, sgn, s;
option remember;
m := prodprime(lcm(denom(q1),denom(q2)))*4;
if s0 mod 4 = 1 then
    sgn := 1;
else
    sgn := -1;
end if;
if isfundamental(sgn*s0) and e*s0 > 4 and s0 > 1 then
    D := sgn*s0;
else
    D := nextmoddisc(sgn*s0, sgn*m);
end if;
s := sumkron(D,q1,q2);
if s = 0 then
    return(false);
end if;
check := h(-1*e*abs(D))/s;
```

```

for i from 1 to maxpass do
  D := nextmoddisc(D, sgn*m);
  s := sumkron(D, q1, q2);
  if s = 0 then
    return(false);
  end if;
  if not(h(-1*e*abs(D))/s = check) then
    return(false);
  end if;
end do;
return(true);
end proc:

```

C.2 Formula

The following routine calculates the class number formulae of Dirichlet type for a given value of e and returns them in a list.

```

formula := proc(e)
local l,q1,q2,m,lmax,a,astart,aend,b,bmax,
      c,D,s0,sstart,sgn,sstep, F;
F := [];
if e mod 4 = 2 then return(F) end if;
lmax := floor(maxdenom/e);
for l from 1 to lmax do
  m := 4*prodprime(l*e);
  if not(e mod 4 = 0) and not(issqrfree(e)) then
    return(F);
  end if;
  sstep := 4;
  if -1*e mod 4 = 1 then
    sstart := 1;
  else
    if -1*e mod 4 = 3 then
      sstart := 3;
    else

```



```

    if  $-1*e/4 \bmod 4 = 2$  then
        sstart := 1;
        sstep := 2;
    else
        if  $-1*e/4 \bmod 4 = 1$  then
            sstart := 3;
        else
            sstart := 1;
        end if;
    end if;
end if;
for s0 from sstart to m by sstep do
    if gcd(s0, l*e) = 1 then
        bmax := l*e - 1;
        if  $s0 \bmod 4 = 3$  then bmax := l*e/2 end if;
        for b from 1 to bmax do
            if  $b/(l*e) > 1/2$  then
                astart := 1;
            else
                astart := 0;
            end if;
            aend := min(b-1, l*e-b);
            for a from astart to aend do
                q1 := a/(l*e);
                q2 := b/(l*e);
                if lcm(denom(q1), denom(q2)) = l*e then
                    if iscoeff(e, q1, q2, s0) then
                        if  $s0 \bmod 4 = 1$  then
                            sgn := 1;
                        else
                            sgn := -1;
                        end if;
                        D := nextmoddisc(sgn*s0, sgn*m);
                        c := h(-1*e*abs(D))/sumkron(D, q1, q2);
                        F := [op(F), [e, q1, q2, c, s0, m]];
                    end if;
                end if;
            end do;
        end do;
    end do;
end do;

```

```

        end if;
    end do;
end do;
return(F);
end proc:

```

C.3 Proof

This works out proofs of class number formulas by comparing the class number in terms of the parametric equations on the $s(p, k, n)$ to the formula found.

```

proof := proc(d,c1,q1,q2,c2,q3,q4,r,m)
local A,B,i,j,check,l,L;
option remember;
l := lcm(denom(q1),denom(q2),denom(q3),denom(q4));
if l mod 2 = 1 then
    L := 2*l;
else
    L := l;
end if;
if d = 1 then
    A := array(1..L);
    for i from 1 to L do
        A[i] := 0;
    end do;
    for i from 0 to lcm(8,m)/m-1 do
        for j from 1 to L/2 do
            if r+i*m mod 8 = 3 then
                A[j] := 1/3;
            else
                A[j] := 1;
            end if;
        end do;
    end do;
    B := JandM(L,r+i*m,lcm(8,m));
    check := 0;
    for j from q1*L+1 to q2*L do

```

```

        check := check + c1*B[j,1];
    end do;
    for j from q3*L+1 to q4*L do
        check := check + c2*B[j,1];
    end do;
    for j from 1 to L do
        check := check - A[j]*B[j,1];
    end do;
    if check<>0 then
        return(false);
    end if;
end do;
return(true);
else
    A := ClassSum(d,L,r);
    B := JandM(L,r,m);
    check := 0;
    for j from q1*L+1 to q2*L do
        check := check + c1*B[j,1];
    end do;
    for i from 1 to L/2 do
        check := check - A[i]*B[i,1];
    end do;
    if check=0 then
        return(true);
    else
        return(false);
    end if;
end if;
end proc:

```

Appendix D

The Thesis Package

This section contains the Maple code used to generate two term class number formulae of the Dirichlet type and prove them. The programs were put together in a package.

D.1 Iscoeff

The following checks to see if there is a possible two term class number formula of Dirichlet type. If a possible formula is found the routine returns *true*. Otherwise the routine returns *false*.

```
iscoeff := proc(e,q1,q2,q3,q4,s0)
local check1,check2,check3, ch, D, m, i, sgn, s1,s2,k3 ,isnew,hold,cd;
option remember;
coeff := [0,0];
isnew := false;
m := prodprime(lcm(denom(q1),denom(q2),denom(q3),denom(q4)))*4;
if s0 mod 4 = 1 then
    sgn := 1;
else
    sgn := -1;
end if;
if isfundamental(sgn*s0) and e*s0 4 and s0 > 1 then
    D := sgn*s0;
else
```

```

    D := nextmoddisc(sgn*s0, sgn*m);
end if;
s1 := sumkron(D,q1,q2);
s2 := sumkron(D,q3,q4);
if s1 = 0 and s2 = 0 then
    return([false,0,0]);
end if;
ch := h(-1*e*abs(D));
hold := [s1,s2,ch];
check1 := s1/ch;
check2 := s2/ch;
if s2 = 0 then
    check3 := 0;
else
    check3 := s1/s2;
end if;
for i from 1 to maxpass do
    D := nextmoddisc(D, sgn*m);
    s1 := sumkron(D, q1, q2);
    s2 := sumkron(D, q3, q4);
    ch := h(-1*e*abs(D));
    if s1 = 0 and s2 = 0 then
        return([false,0,0]);
    end if;
    if not(isnew) then
        if s2 = 0 then
            k3 := 0;
        else
            k3 := s1/s2;
        end if;
        if s1/ch <> check1 or s2/ch <> check2 or k3 <> check3 then
            if s1/ch = check1 and s2/ch <> check2 then
                return([false,0,0]);
            end if;
            if s1/ch <> check1 and s2/ch = check2 then
                return([false,0,0]);
            end if;
            if k3 = check3 then
                return([false,0,0]);
            end if;

```

```

        cd := (hold[1]*s2-hold[2]*s1);
        coeff := [(hold[3]*s2-ch*hold[2])/cd, -1*(hold[3]*s1-ch*hold[1])/cd];
        isnew := true;
    end if;
else
    if not(coeff[1]*s1+coeff[2]*s2 = ch) then
        return([false,0,0]);
    end if;
end if;
end do;
return([isnew,coeff[1],coeff[2]]);
end proc:

```

D.2 Formula

The following routine finds two term class number formulae of Dirichlet type for a given value of e and returns them in a list.

```

formula := proc(e)
local l,q1,q2,q3,q4,m,lmax,k,a,amax,b, c,cmax,
      d,dmax,D,s0,sstart,sgn,sstep, F;
F := [];
if e mod 4 = 2 then return(F) end if;
lmax := floor(maxdenom/e);
for l from 1 to lmax do
    m := 4*prodprime(l*e);
    if not(e mod 4 = 0) and not(issqrfree(e)) then
        return(F);
    end if;
    sstep := 4;
    if -1*e mod 4 = 1 then
        sstart := 1;
    else
        if -1*e mod 4 = 3 then
            sstart := 3;
        else

```

```

    if  $-1*e/4 \bmod 4 = 2$  then
        sstart := 1;
        sstep := 2;
    else
        if  $-1*e/4 \bmod 4 = 1$  then
            sstart := 3;
        else
            sstart := 1;
        end if;
    end if;
end if;
for s0 from sstart to m by sstep do
    if gcd(s0, l*e) = 1 then
        dmax := l*e/2;
        for d from 2 to dmax do
            cmax := d-1;
            for c from 1 to cmax do
                amax := b-1;
                for a from 0 to amax do
                    q1 := a/(l*e);
                    q2 := b/(l*e);
                    q3 := c/(l*e);
                    q4 := d/(l*e);
                    if lcm(denom(q1),denom(q2), denom(q3),denom(q4))
                        = l*e then
                        k := iscoeff(e, q1, q2, q3, q4, s0);
                        if k[1] then
                            if not( q3 = q2 and k[2] = k[3]) then
                                F := [op(F), [e,k[2],q1,q2, k[3],q3,q4,s0,m]];
                            end if;
                        end if;
                    end if;
                end do;
            end do;
        end do;
    end do;
end if;
end do;

```

```

end do;
return(F);
end proc:

```

D.3 Proof

This works out proofs of class number formulas by comparing the class number in terms of the parametric equations on the $s(p, k, n)$ to the formula found.

```

proof := proc(d,c1,q1,q2,c2,q3,q4,r,m)
local A,B,i,j,check,l,L;
option remember;
l := lcm(denom(q1),denom(q2),denom(q3),denom(q4));
if l mod 2 = 1 then
  L := 2*l;
else
  L := l;
end if;
if d = 1 then
  A := array(1..L);
  for i from 1 to L do
    A[i] := 0;
  end do;
  for i from 0 to lcm(8,m)/m-1 do
    for j from 1 to L/2 do
      if r+i*m mod 8 = 3 then
        A[j] := 1/3;
      else
        A[j] := 1;
      end if;
    end do;
    B := JandM(L,r+i*m,lcm(8,m));
    check := 0;
    for j from q1*L+1 to q2*L do
      check := check + c1*B[j,1];
    end do;
  end do;
end do;

```



```

    for j from q3*L+1 to q4*L do
        check := check + c2*B[j,1];
    end do;
    for j from 1 to L do
        check := check - A[j]*B[j,1];
    end do;
    if check<>0 then
        return(false);
    end if;
end do;
return(true);
else
    A := ClassSum(d,L,r);
    B := JandM(L,r,m);
    check := 0;
    for j from q1*L+1 to q2*L do
        check := check + c1*B[j,1];
    end do;
    for j from q3*L+1 to q4*L do
        check := check + c2*B[j,1];
    end do;
    for i from 1 to L/2 do
        check := check - A[i]*B[i,1];
    end do;
    if check=0 then
        return(true);
    else
        return(false);
    end if;
end if;
end proc:

```

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