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Research Paper

Fourier coefficients of a class of ETA quotients of weight 20 with level 12

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Abstract

Williams[18] and later Yao, Xia and Jin[15] discovered explicit formulas for the coefficients of the Fourier series expansions of a class of eta quotients. Williams expressed all coefficients of 126 eta quotients in terms of $\sigma(n), \sigma(\frac{n}{2}), \sigma(\frac{n}{3})$ and $\sigma(\frac{n}{6})$ and Yao, Xia and Jin, following the method of proof of Williams, expressed only even coefficients of 104 eta quotients in terms of $\sigma_3(n), \sigma_3(\frac{n}{2}), \sigma_3(\frac{n}{3})$ and $\sigma_3(\frac{n}{6})$.Here, we will express the even Fourier coefficients of 570 eta quotients in terms of $\sigma_{19}\left(n\right), \sigma_{19}\left(\frac{n}{2}\right), \sigma_{19}\left(\frac{n}{3}\right), \sigma_{19}\left(\frac{n}{4}\right), \sigma_{19}\left(\frac{n}{6}\right)$ and $\sigma_{19}\left(\frac{n}{12}\right)$.

Keywords: *Dedekind eta function; eta quotients; Fourier series.*

1. Introduction

The divisor function $\sigma_i\left(n\right)$ is defined for a positive integer i by

$$\sigma_i\left(n\right) := \sum_{d \text{ positive integer}, d|n} d^i, \text{if } n \text{ is a positive integer, and} \tag{1}$$

$$\sigma_i\left(n\right) := 0, \text{ if } n \text{ is not a positive integer.}$$

The Dedekind eta function is defined by

$$\eta\left(z\right) := q^{1/24} \prod_{n=1}^{\infty} \left(1-q^n\right), \tag{2}$$

where

$$q := e^{2\pi i z}, z \in H = \{x+iy : y > 0\} \tag{3}$$

and an eta quotient of level n is defined by

$$f(z) := \prod_{m|n} \eta(mz)^{a_m}, n, m \in \mathbb{N}, a_m \in Z. \tag{4}$$

It is interesting and important to determine explicit formulas of the Fourier coefficients of eta quotients, because they are the building blocks of modular forms of level n and weight k. The book of Köhler [13] (Chapter 3, pg.39) describes such expansions by means of Hecke Theta series and develops algorithms for the determination of suitable eta quotients. One can find more information in [3], [6], [14], [16], [17]. I have determined the Fourier coefficients of the theta series associated to some quadratic forms, see [7], [8], [9][10], [11] and [12].

Recently, Williams, see [18] discovered explicit formulas for the coefficients of Fourier series expansions of a class of 126 eta quotients in terms of $\sigma(n), \sigma(\frac{n}{2}), \sigma(\frac{n}{3})$ and $\sigma(\frac{n}{6})$. One example is as follows:

$$\frac{\eta^2(2z)\eta^4(4z)\eta^6(6z)}{\eta^2(z)\eta^2(3z)\eta^4(12z)} = 1 + \sum_{n=1}^{\infty} c(n)q^n,$$

where

$$c(n) = 2\sigma(n) - 3\sigma(n/2) + 4\sigma(n/4) + 9\sigma(n/6) - 36\sigma(n/12).$$

Then Yao, Xia and Jin [15] expressed the even Fourier coefficients of 104 eta quotients in terms of $\sigma_3(n), \sigma_3(\frac{n}{2}), \sigma_3(\frac{n}{3})$ and $\sigma_3(\frac{n}{6})$. One example is as follows:

$$\frac{\eta^{25}(2z)\eta^4(3z)}{\eta^{12}(z)\eta^5(4z)\eta^3(6z)\eta(12z)} = 1 + \sum_{n=1}^{\infty} c(n)q^n,$$

where

$$c(2n) = 65\sigma_3(n) - 68\sigma_3(n/2) - 81\sigma_3(n/3) + 324\sigma_3(n/6).$$

After that we find that we can express the even Fourier coefficients of 570 eta quotients in terms of $\sigma_{19}(n), \sigma_{19}\left(\frac{n}{2}\right), \sigma_{19}\left(\frac{n}{3}\right), \sigma_{19}\left(\frac{n}{4}\right), \sigma_{19}\left(\frac{n}{6}\right)$ and $\sigma_{17}\left(\frac{n}{12}\right)$,see Table 3. One example is as follows:

$$\frac{\eta^{36}(2z)\eta^{38}(12z)}{\eta^{18}(4z)\eta^{16}(6z)} = 1 + \sum_{n=1}^{\infty} c(n)q^n,$$

where

$$c(2n) = -\frac{1}{7971615}\sigma_{19}(2n) + \frac{174763}{23914845}\sigma_{19}(n) - \frac{524288}{71744535}\sigma_{19}(n/2).$$

We also see that the odd Fourier coefficients of 1208 eta quotients are zero and even coefficients can be expressed by simple formula. Now let

$$f_1 := \sum_{n=0}^{\infty} f_1(n)q^n = \frac{\eta^{43}(4z)\eta^{43}(6z)}{\eta^{29}(2z)\eta^{17}(12z)},$$

$$f_2 = \sum_{n=0}^{\infty} f_2(n)q^n = \frac{\eta^{38}(4z)\eta^{48}(6z)}{\eta^{28}(2z)\eta^{18}(12z)},$$

$$f_3 = \sum_{n=0}^{\infty} f_3(n)q^n = \frac{\eta^{50}(4z)\eta^{24}(6z)}{\eta^{28}(2z)\eta^{6}(12z)},$$

$$f_4 = \sum_{n=0}^{\infty} f_4(n)q^n = \frac{\eta^{50}(4z)\eta^{48}(6z)}{\eta^{28}(2z)\eta^{30}(12z)},$$

$$f_5 = \sum_{n=0}^{\infty} f_5(n)q^n = \frac{\eta^{45}(4z)\eta^{29}(6z)}{\eta^{27}(2z)\eta^{7}(12z)},$$

$$f_6 = \sum_{n=0}^{\infty} f_6(n) q^n = \frac{\eta^{40}(4z)\eta^{34}(6z)}{\eta^{26}(2z)\eta^{8}(12z)},$$

$$f_7 = \sum_{n=0}^{\infty} f_7(n) q^n = \frac{\eta^{44}(4z)\eta^{36}(12z)}{\eta^{22}(2z)\eta^{18}(6z)},$$

$$f_8 = \sum_{n=0}^{\infty} f_8(n) q^n = \frac{\eta^{47}(4z)\eta^{15}(6z)\eta^{3}(12z)}{\eta^{25}(2z)},$$

$$f_9 = \sum_{n=0}^{\infty} f_9(n) q^n = \frac{\eta^{47}(4z)\eta^{39}(6z)}{\eta^{25}(2z)\eta^{21}(12z)},$$

$$f_{10} = \sum_{n=0}^{\infty} f_{10}(n) q^n = \frac{\eta^{30}(4z)\eta^{44}(6z)}{\eta^{24}(2z)\eta^{10}(12z)},$$

$$f_{11} = \sum_{n=0}^{\infty} f_{11}(n) q^n = \frac{\eta^{44}(4z)\eta^{6}(6z)\eta^{12}(12z)}{\eta^{22}(2z)},$$

$$f_{12} = \sum_{n=0}^{\infty} f_{12}(n) q^n = \frac{\eta^{15}(2z)\eta^{35}(4z)\eta^{11}(12z)}{\eta^{21}(6z)},$$

$$f_{13} = \sum_{n=0}^{\infty} f_{13}(n) q^n = \frac{\eta^{25}(4z)\eta^{49}(6z)}{\eta^{23}(2z)\eta^{11}(12z)},$$

$$f_{14} = \sum_{n=0}^{\infty} f_{14}(n) q^n = \frac{\eta^{27}(4z)\eta^{11}(6z)\eta^{23}(12z)}{\eta^{21}(2z)},$$

$$f_{15} = \sum_{n=0}^{\infty} f_{15}(n) q^n = \frac{\eta^{5}(4z)\eta^{45}(6z)\eta^{9}(12z)}{\eta^{19}(2z)},$$

$$f_{16} = \sum_{n=0}^{\infty} f_{16}(n) q^n = \frac{\eta^{49}(4z)\eta(6z)\eta^{13}(12z)}{\eta^{23}(2z)},$$

$$f_{17} = \sum_{n=0}^{\infty} f_{17}(n) q^n = \frac{\eta^{43}(4z)\eta^{31}(12z)}{\eta^{17}(2z)\eta^{17}(6z)},$$

$$f_{18} = \sum_{n=0}^{\infty} f_{18}(n) q^n = \frac{\eta^{50}(6z)\eta^{8}(12z)}{\eta^{18}(2z)},$$

$$f_{19} = \sum_{n=0}^{\infty} f_{19}(n) q^n = \frac{\eta^{12}(4z)\eta^{20}(6z)\eta^{20}(12z)}{\eta^{12}(2z)},$$

$$f_{20} = \sum_{n=0}^{\infty} f_{20}(n) q^n = \frac{\eta^{16}(4z)\eta^{16}(6z)\eta^{16}(12z)}{\eta^{8}(2z)},$$

$$f_{21} = \sum_{n=0}^{\infty} f_{21}(n) q^n = \frac{\eta^{20}(4z)\eta^{12}(6z)\eta^{12}(12z)}{\eta^{4}(2z)},$$

$$f_{22} = \sum_{n=0}^{\infty} f_{22}(n) q^n = \frac{\eta^{15}(4z)\eta^{17}(6z)\eta^{11}(12z)}{\eta^{3}(2z)},$$

$$f_{23} = \sum_{n=0}^{\infty} f_{23}(n) q^n = \frac{\eta^{11}(2z)\eta^{17}(4z)\eta^{15}(6z)}{\eta^{3}(12z)},$$

$$f_{24} = \sum_{n=0}^{\infty} f_{24}(n) q^n = \eta(2z)\eta^{7}(4z)\eta^{13}(6z)\eta^{19}(12z),$$

$$f_{25}=\sum_{n=0}^{\infty} f_{25}(n)\, q^{n}=\eta(2z)\,\eta^{19}(4z)\,\eta^{13}(6z)\,\eta^{7}(12z),$$

$$f_{26}=\sum_{n=0}^{\infty} f_{26}(n)\, q^{n}=\eta^{2}(2z)\,\eta^{2}(4z)\,\eta^{18}(6z)\,\eta^{18}(12z),$$

$$f_{27}=\sum_{n=0}^{\infty} f_{27}(n)\, q^{n}=\frac{\eta^{12}(2z)\,\eta^{20}(6z)\,\eta^{20}(12z)}{\eta^{12}(4z)},$$

$$f_{28}=\sum_{n=0}^{\infty} f_{28}(n)\, q^{n}=\eta^{4}(2z)\,\eta^{16}(4z)\,\eta^{4}(6z)\,\eta^{16}(12z),$$

$$f_{29}=\sum_{n=0}^{\infty} f_{29}(n)\, q^{n}=\frac{\eta^{16}(2z)\,\eta^{16}(6z)\,\eta^{16}(12z)}{\eta^{8}(4z)},$$

$$f_{30}=\sum_{n=0}^{\infty} f_{30}(n)\, q^{n}=\frac{\eta^{16}(2z)\,\eta^{16}(4z)\,\eta^{16}(12z)}{\eta^{8}(6z)},$$

$$f_{31}=\sum_{n=0}^{\infty} f_{31}(n)\, q^{n}=\eta^{6}(2z)\,\eta^{18}(4z)\,\eta^{14}(6z)\,\eta^{2}(12z),$$

$$f_{32}=\sum_{n=0}^{\infty} f_{32}(n)\, q^{n}=\frac{\eta^{16}(2z)\,\eta^{16}(4z)\,\eta^{16}(6z)}{\eta^{8}(12z)},$$

$$f_{33}=\sum_{n=0}^{\infty} f_{33}(n)\, q^{n}=\frac{\eta^{20}(2z)\,\eta^{20}(4z)\,\eta^{12}(12z)}{\eta^{12}(6z)},$$

$$f_{34}=\sum_{n=0}^{\infty} f_{34}(n)\, q^{n}=\frac{\eta^{20}(2z)\,\eta^{20}(4z)\,\eta^{12}(6z)}{\eta^{12}(12z)},$$

$$f_{35}=\sum_{n=0}^{\infty} f_{35}(n)\, q^{n}=\frac{\eta^{30}(2z)\,\eta^{30}(4z)}{\eta^{10}(6z)\,\eta^{10}(12z)}.$$

The proof of the following Lemma about these coefficients is obvious.

Lemma 1.1 *For* $n=1,2,\ldots,$

$$f_{1}(2n)=\cdots=f_{18}(2n)=0,$$

$$f_{19}(2n-1)=\cdots=f_{35}(2n-1)=0.$$

2. Main results

Now we can state our main Theorem:

Theorem 2.1 *Let* $b_1, b_2, \cdots, b_5$ *be non-negative integers satisfying*

$$b_1+b_2+\cdots+b_5 \leq 40. \tag{5}$$

Define the integers $a_1, a_2, a_3, a_4, a_6, a_{12}$ *by*

$$a_1:=-b_1+2b_2-2b_3-4b_4-b_5+40, \tag{6}$$

$$a_2:=3b_1+b_2+3b_3+10b_4+b_5-100, \tag{7}$$

$$a_3 := 3b_1 + 2b_2 + 6b_3 + 4b_4 + 3b_5 - 120, \tag{8}$$

$$a_4 := -2b_1 - b_2 - b_3 - 4b_4 + 2b_5 + 40, \tag{9}$$

$$a_6 := -9b_1 - 7b_2 - 9b_3 - 10b_4 - 7b_5 + 300, \tag{10}$$

$$a_{12} := 6b_1 + 3b_2 + 3b_3 + 4b_4 + 2b_5 - 120. \tag{11}$$

Now define the rational numbers $\{k_i : i = 0, \ldots, 40\}$ *by*

$$\frac{1}{2^{b_1+b_5}} x^{b_1}(1-x)^{b_2}(1+x)^{b_3}(1+2x)^{b_4}(2+x)^{b_5} = \sum_{i=0}^{40} k_i x^i. \tag{12}$$

Define the rational numbers

$c_1, c_2, c_3, c_4, c_6, c_{12}, r_1, r_2, \ldots, r_{34}$

and r_{35} *as in www.bariskendirli.com.tr/weight20/Table 1. Here* $\{f_1, \ldots f_{35}\} \setminus \{f_7, f_{12}, f_{14}, f_{15}, f_{17}, f_{18}, f_{35}\} \in S_{20}(\Gamma_0(12))$, $f_7, f_{12}, f_{14}, f_{15}, f_{17}, f_{18}, f_{35} \in M_{20}(\Gamma_0(12)) \setminus S_{20}(\Gamma_0(12))$ *and*

$$\eta^{a_1}(z)\,\eta^{a_2}(2z)\,\eta^{a_3}(3z)\,\eta^{a_4}(4z)\,\eta^{a_6}(6z)\,\eta^{a_{12}}(12z) = \delta(b_1) + \sum_{n=1}^{\infty} c(n) q^n,$$

where for $n \in \mathbb{N}$,

$$\begin{aligned} c(n) &= c_1\sigma_{19}(n) + c_2\sigma_{19}\left(\frac{n}{2}\right) + c_3\sigma_{19}\left(\frac{n}{3}\right) + c_4\sigma_{19}\left(\frac{n}{4}\right) + c_6\sigma_{19}\left(\frac{n}{6}\right) + c_{12}\sigma_{19}\left(\frac{n}{12}\right) \\ &\quad + r_1 f_1(n) + \cdots + r_{35} f_{35}(n). \end{aligned}$$

In particular,

$$\begin{aligned} c(2n) &= c_1\sigma_{19}(2n) + c_2\sigma_{19}(n) + c_4\sigma_{19}\left(\frac{n}{2}\right) + (1048\,577c_3 + c_6)\,\sigma_{19}\left(\frac{n}{3}\right) \\ &\quad + (c_{12} - 1048\,576c_3)\sigma_{19}\left(\frac{n}{6}\right) + r_1 f_1(2n) + \cdots + r_{35} f_{35}(2n), \end{aligned}$$

$$\begin{aligned} c(2n-1) &= c_1\sigma_{19}(2n-1) + c_3\sigma_{19}\left(\frac{2n-1}{3}\right) \\ &\quad + r_{19} f_{19}(2n-1) + \cdots + r_{35} f_{35}(2n-1), \end{aligned}$$

for $n \in \mathbb{N}$.

Proof: It follows from (6)-(11) that

$$a_1 + 2a_2 + 3a_3 + 4a_4 + 6a_6 + 12a_{12} = 24b_1, \tag{13}$$

$$a_1 + a_2 + a_3 + a_4 + a_6 + a_{12} = 40, \tag{14}$$

$$-\frac{a_1}{6} - \frac{a_2}{3} - \frac{a_3}{6} - \frac{2a_4}{3} - \frac{a_6}{3} - \frac{2a_{12}}{3} = -b_1 - b_5.$$

Now we will use (p,k) parametrization of Alaca, Alaca and Williams, see [1]:

$$p(q) := \frac{\varphi^2(q) - \varphi^2(q^3)}{2\varphi^2(q^3)}, k(q) := \frac{\varphi^3(q^3)}{\varphi(q)}, \tag{15}$$

where the theta function $\varphi(q)$ is defined by

$$\varphi(q) = \sum_{-\infty}^{\infty} q^{n^2}.$$

Setting $x = p$ in (12), and multiplying both sides by k^{20},we obtain

$$\frac{k^{20}}{2^{b_1+b_5}} p^{b_1}(1-p)^{b_2}(1+p)^{b_3}(1+2p)^{b_4}(2+p)^{b_5}$$

$$= (\sum_{i=0}^{40} k_i p^i) k^{20}.$$

Alaca, Alaca and Williams [2] have established the following representations in terms of p and k:

$$\eta(q) = 2^{-1/6} p^{1/24}(1-p)^{1/2}(1+p)^{1/6}(1+2p)^{1/8}(2+p)^{1/8}k^{1/2}, \tag{16}$$

$$\eta(q^2) = 2^{-1/3} p^{1/12}(1-p)^{1/4}(1+p)^{1/12}(1+2p)^{1/4}(2+p)^{1/4}k^{1/2}, \tag{17}$$

$$\eta(q^3) = 2^{-1/6} p^{1/8}(1-p)^{1/6}(1+p)^{1/2}(1+2p)^{1/24}(2+p)^{1/24}k^{1/2}, \tag{18}$$

$$\eta(q^4) = 2^{-2/3} p^{1/6}(1-p)^{1/8}(1+p)^{1/24}(1+2p)^{1/8}(2+p)^{1/2}k^{1/2}, \tag{19}$$

$$\eta(q^6) = 2^{-1/3} p^{1/4}(1-p)^{1/12}(1+p)^{1/4}(1+2p)^{1/12}(2+p)^{1/12}k^{1/2}, \tag{20}$$

$$\eta(q^{12}) = 2^{-2/3} p^{1/2}(1-p)^{1/24}(1+p)^{1/8}(1+2p)^{1/24}(2+p)^{1/6}k^{1/2}, \tag{21}$$

$$E_6(q) := 1 - 504 \sum_{n=1}^{\infty} \sigma_5(n) q^n$$

$$\begin{aligned} = \;& (1 - 246p - 5532p^2 - 38614p^3 - 135369p^4 - 276084p^5 \\ & -348024p^6 - 276084p^7 - 135369p^8 - 38614p^9 - 5532p^{10} \\ & -246p^{11} + p^{12})k^6, \end{aligned}$$

$$E_4(q) := 1 + 240 \sum_{n=1}^{\infty} \sigma_3(n) q^n$$

$$\begin{aligned} = \;& (1 + 124p + 964p^2 + 2788p^3 + 3910p^4 + 2788p^5 \\ & +964p^6 + 124p^7 + p^8)k^4. \end{aligned}$$

Therefore, since

$$E_{20}\left(q\right)=\frac{121250}{174611}E_6^2\left(q\right)E_4^2\left(q\right)+\frac{53361}{174611}E_4^5\left(q\right),$$

we have

$$\begin{aligned}E_{20}\left(q\right) &= (p^{40}+\frac{3498\,820}{174\,611}p^{39}+\frac{1761\,712\,380}{174\,611}p^{38}+\frac{1950\,771\,349\,900}{174\,611}p^{37}\\
&+\frac{262\,533\,149\,598\,050}{174\,611}p^{36}+\frac{12\,244\,560\,329\,615\,724}{174\,611}p^{35}\\
&+\frac{297\,550\,209\,630\,645\,660}{174\,611}p^{34}+\frac{4540\,576\,615\,265\,413\,860}{174\,611}p^{33}\\
&+\frac{48\,205\,011\,029\,576\,752\,215}{174\,611}p^{32}+\frac{379\,279\,886\,962\,492\,426\,000}{174\,611}p^{31}\\
&+\frac{2306\,867\,772\,376\,889\,866\,544}{174\,611}p^{30}+\frac{11\,172\,752\,277\,687\,684\,748\,080}{174\,611}p^{29}\\
&+\frac{44\,032\,939\,445\,831\,353\,072\,280}{174\,611}p^{28}+\frac{143\,523\,588\,642\,250\,460\,471\,920}{174\,611}p^{27}\\
&+\frac{391\,710\,935\,624\,818\,929\,715\,440}{174\,611}p^{26}+\frac{903\,703\,297\,519\,950\,364\,759\,248}{174\,611}p^{25}\\
&+\frac{1775\,257\,667\,109\,763\,890\,078\,870}{174\,611}p^{24}+\frac{2985\,782\,926\,019\,838\,802\,293\,240}{174\,611}p^{23}\\
&+\frac{4316\,791\,070\,784\,960\,278\,738\,760}{174\,611}p^{22}+\frac{5379\,734\,920\,300\,102\,006\,356\,840}{174\,611}p^{21}\\
&+\frac{5788\,306\,667\,816\,968\,534\,061\,580}{174\,611}p^{20}+\frac{5379\,734\,920\,300\,102\,006\,356\,840}{174\,611}p^{19}\\
&+\frac{4316\,791\,070\,784\,960\,278\,738\,760}{174\,611}p^{18}+\frac{2985\,782\,926\,019\,838\,802\,293\,240}{174\,611}p^{17}\\
&+\frac{1775\,257\,667\,109\,763\,890\,078\,870}{174\,611}p^{16}+\frac{903\,703\,297\,519\,950\,364\,759\,248}{174\,611}p^{15}\\
&+\frac{391\,710\,935\,624\,818\,929\,715\,440}{174\,611}p^{14}+\frac{143\,523\,588\,642\,250\,460\,471\,920}{174\,611}p^{13}\\
&+\frac{44\,032\,939\,445\,831\,353\,072\,280}{174\,611}p^{12}+\frac{11\,172\,752\,277\,687\,684\,748\,080}{174\,611}p^{11}\\
&+\frac{2306\,867\,772\,376\,889\,866\,544}{174\,611}p^{10}+\frac{379\,279\,886\,962\,492\,426\,000}{174\,611}p^{9}\\
&+\frac{48\,205\,011\,029\,576\,752\,215}{174\,611}p^{8}+\frac{4540\,576\,615\,265\,413\,860}{174\,611}p^{7}\\
&+\frac{297\,550\,209\,630\,645\,660}{174\,611}p^{6}+\frac{12\,244\,560\,329\,615\,724}{174\,611}p^{5}+\frac{262\,533\,149\,598\,050}{174\,611}\\
&p^{4}+\frac{1950\,771\,349\,900}{174\,611}p^{3}+\frac{1761\,712\,380}{174\,611}p^{2}+\frac{3498\,820}{174\,611}p+1)k^{20},\end{aligned}$$

$$\begin{aligned}
E_{20}\left(q^{2}\right) &= (p^{40}+20p^{39}+\frac{31\,433\,280}{174\,611}p^{38}+\frac{165\,943\,150}{174\,611}p^{37}+\frac{987\,462\,125}{174\,611}p^{36} \\
&+\frac{8929\,248\,174}{174\,611}p^{35}+\frac{303\,281\,329\,710}{174\,611}p^{34}+\frac{4364\,341\,784\,610}{174\,611}p^{33} \\
&+\frac{91\,493\,235\,452\,655}{349\,222}p^{32}+\frac{361\,444\,851\,257\,800}{174\,611}p^{31}+\frac{2201\,013\,342\,701\,144}{174\,611}p^{30} \\
&+\frac{10\,656\,464\,415\,766\,680}{174\,611}p^{29}+\frac{41\,990\,748\,446\,379\,980}{174\,611}p^{28} \\
&+\frac{136\,870\,946\,815\,364\,920}{174\,611}p^{27}+\frac{373\,567\,300\,252\,984\,440}{174\,611}p^{26} \\
&+\frac{861\,845\,414\,133\,190\,248}{174\,611}p^{25}+\frac{1693\,017\,415\,776\,001\,995}{174\,611}p^{24} \\
&+\frac{2847\,457\,351\,673\,446\,140}{174\,611}p^{23}+\frac{4116\,809\,048\,699\,351\,460}{174\,611}p^{22} \\
&+\frac{5130\,518\,121\,215\,151\,540}{174\,611}p^{21}+\frac{5520\,165\,078\,218\,375\,430}{174\,611}p^{20} \\
&+\frac{5130\,518\,121\,215\,151\,540}{174\,611}p^{19}+\frac{4116\,809\,048\,699\,351\,460}{174\,611}p^{18} \\
&+\frac{2847\,457\,351\,673\,446\,140}{174\,611}p^{17}+\frac{1693\,017\,415\,776\,001\,995}{174\,611}p^{16} \\
&+\frac{861\,845\,414\,133\,190\,248}{174\,611}p^{15}+\frac{373\,567\,300\,252\,984\,440}{174\,611}p^{14} \\
&+\frac{136\,870\,946\,815\,364\,920}{174\,611}p^{13}+\frac{41\,990\,748\,446\,379\,980}{174\,611}p^{12} \\
&+\frac{10\,656\,464\,415\,766\,680}{174\,611}p^{11}+\frac{2201\,013\,342\,701\,144}{174\,611}p^{10} \\
&+\frac{361\,444\,851\,257\,800}{174\,611}p^{9}+\frac{91\,493\,235\,452\,655}{349\,222}p^{8} \\
&+\frac{4364\,341\,784\,610}{174\,611}p^{7}+\frac{303\,281\,329\,710}{174\,611}p^{6}+\frac{8929\,248\,174}{174\,611}p^{5} \\
&+\frac{987\,462\,125}{174\,611}p^{4}+\frac{165\,943\,150}{174\,611}p^{3}+\frac{31\,433\,280}{174\,611}p^{2}+20p+1)k^{20},
\end{aligned}$$

$$\begin{aligned}
E_{20}\left(q^{3}\right) &= (p^{40}+20p^{39}+180p^{38}+\frac{165\,882\,100}{174\,611}p^{37}+\frac{554\,420\,450}{174\,611}p^{36} \\
&+\frac{1141\,160\,724}{174\,611}p^{35}+\frac{1164\,216\,060}{174\,611}p^{34}+\frac{539\,536\,860}{174\,611}p^{33} \\
&+\frac{8009\,545\,815}{174\,611}p^{32}+\frac{82\,124\,642\,800}{174\,611}p^{31}+\frac{622\,305\,005\,744}{174\,611}p^{30} \\
&+\frac{3416\,310\,121\,680}{174\,611}p^{29}+\frac{13\,238\,543\,613\,080}{174\,611}p^{28}+\frac{40\,264\,423\,711\,120}{174\,611}p^{27} \\
&+\frac{108\,624\,031\,190\,640}{174\,611}p^{26}+\frac{261\,168\,091\,468\,848}{174\,611}p^{25}+\frac{521\,667\,517\,163\,670}{174\,611}p^{24} \\
&+\frac{854\,113\,070\,472\,840}{174\,611}p^{23}+\frac{1212\,499\,060\,327\,560}{174\,611}p^{22}+\frac{1543\,771\,577\,414\,040}{174\,611}p^{21} \\
&+\frac{1692\,495\,554\,535\,180}{174\,611}p^{20}+\frac{1543\,771\,577\,414\,040}{174\,611}p^{19} \\
&+\frac{1212\,499\,060\,327\,560}{174\,611}p^{18}+\frac{854\,113\,070\,472\,840}{174\,611}p^{17}+\frac{521\,667\,517\,163\,670}{174\,611}p^{16} \\
&+\frac{261\,168\,091\,468\,848}{174\,611}p^{15}+\frac{108\,624\,031\,190\,640}{174\,611}p^{14}+\frac{40\,264\,423\,711\,120}{174\,611}p^{13} \\
&+\frac{13\,238\,543\,613\,080}{174\,611}p^{12}+\frac{3416\,310\,121\,680}{174\,611}p^{11}+\frac{622\,305\,005\,744}{174\,611}p^{10} \\
&+\frac{82\,124\,642\,800}{174\,611}p^{9}+\frac{8009\,545\,815}{174\,611}p^{8}+\frac{539\,536\,860}{174\,611}p^{7}+\frac{1164\,216\,060}{174\,611}p^{6} \\
&+\frac{1141\,160\,724}{174\,611}p^{5}+\frac{554\,420\,450}{174\,611}p^{4}+\frac{165\,882\,100}{174\,611}p^{3}+180p^{2}+20p+1)k^{20},
\end{aligned}$$

$$
\begin{aligned}
E_{20}\left(q^{4}\right) = {} & (\frac{1}{1048\,576}p^{40}+\frac{871\,405}{45\,773\,225\,984}p^{39}+\frac{440\,363\,745}{45\,773\,225\,984}p^{38} \\
& -\frac{117\,793\,359\,275}{11\,443\,306\,496}p^{37}+\frac{23\,947\,134\,429\,775}{22\,886\,612\,992}p^{36} \\
& -\frac{254\,868\,233\,968\,161}{11\,443\,306\,496}p^{35}+\frac{302\,463\,836\,011\,515}{2860\,826\,624}p^{34} \\
& +\frac{1160\,663\,370\,518\,955}{5721\,653\,248}p^{33}-\frac{28\,749\,261\,448\,742\,445}{22\,886\,612\,992}p^{32} \\
& -\frac{2100\,550\,371\,547\,975}{1430\,413\,312}p^{31}+\frac{8316\,909\,253\,331\,623}{1430\,413\,312}p^{30} \\
& +\frac{2649\,051\,448\,593\,615}{357\,603\,328}p^{29}-\frac{9448\,705\,577\,013\,595}{715\,206\,656}p^{28} \\
& -\frac{3737\,818\,023\,814\,145}{178\,801\,664}p^{27}+\frac{195\,006\,967\,788\,285}{11\,175\,104}p^{26} \\
& +\frac{3816\,495\,781\,888\,401}{89\,400\,832}p^{25}+\frac{3875\,892\,669\,469\,395}{715\,206\,656}p^{24} \\
& -\frac{4402\,258\,116\,918\,165}{178\,801\,664}p^{23}+\frac{1872\,902\,744\,061\,915}{178\,801\,664}p^{22} \\
& +\frac{2346\,702\,805\,920\,615}{44\,700\,416}p^{21}+\frac{4147\,844\,506\,625\,385}{89\,400\,832}p^{20} \\
& +\frac{951\,687\,682\,156\,815}{44\,700\,416}p^{19}+\frac{147\,096\,539\,206\,365}{11\,175\,104}p^{18} \\
& +\frac{331\,640\,077\,115\,295}{22\,350\,208}p^{17}+\frac{1052\,959\,610\,032\,065}{89\,400\,832}p^{16} \\
& +\frac{62\,680\,520\,061\,747}{11\,175\,104}p^{15}+\frac{19\,650\,005\,782\,785}{11\,175\,104}p^{14} \\
& +\frac{1564\,837\,152\,745}{2793\,776}p^{13}+\frac{1661\,596\,819\,735}{5587\,552}p^{12} \\
& +\frac{24\,368\,406\,705}{174\,611}p^{11}+\frac{3494\,456\,413}{349\,222}p^{10}-\frac{7531\,426\,175}{174\,611}p^{9} \\
& -\frac{93\,384\,029\,385}{2793\,776}p^{8}-\frac{5207\,303\,235}{698\,444}p^{7}+\frac{4219\,951\,665}{698\,444}p^{6} \\
& +\frac{1140\,923\,124}{174\,611}p^{5}+\frac{554\,390\,750}{174\,611}p^{4}+950p^{3}+180p^{2}+20p+1)k^{20},
\end{aligned}
$$

$$
\begin{aligned}
E_{20}\left(q^{6}\right) = {} & (p^{40}+20p^{39}+180p^{38}+950p^{37}+3175p^{36}+6534p^{35} \\
& +\frac{1054\,868\,910}{174\,611}p^{34}-\frac{1302\,376\,290}{174\,611}p^{33}-\frac{11\,730\,204\,945}{349\,222}p^{32} \\
& -\frac{7966\,512\,200}{174\,611}p^{31}-\frac{1308\,580\,456}{174\,611}p^{30}+\frac{12\,073\,490\,280}{174\,611}p^{29} \\
& +\frac{18\,399\,531\,980}{174\,611}p^{28}+\frac{6936\,773\,320}{174\,611}p^{27}-\frac{12\,990\,377\,160}{174\,611}p^{26} \\
& -\frac{20\,113\,138\,152}{174\,611}p^{25}-\frac{7670\,974\,005}{174\,611}p^{24}+\frac{8584\,483\,140}{174\,611}p^{23} \\
& +\frac{11\,628\,731\,460}{174\,611}p^{22}+\frac{3054\,606\,540}{174\,611}p^{21}-\frac{2512\,795\,770}{174\,611}p^{20} \\
& +\frac{3054\,606\,540}{174\,611}p^{19}+\frac{11\,628\,731\,460}{174\,611}p^{18}+\frac{8584\,483\,140}{174\,611}p^{17} \\
& -\frac{7670\,974\,005}{174\,611}p^{16}-\frac{20\,113\,138\,152}{174\,611}p^{15}-\frac{12\,990\,377\,160}{174\,611}p^{14} \\
& +\frac{6936\,773\,320}{174\,611}p^{13}+\frac{18\,399\,531\,980}{174\,611}p^{12}+\frac{12\,073\,490\,280}{174\,611}p^{11} \\
& -\frac{1308\,580\,456}{174\,611}p^{10}-\frac{7966\,512\,200}{174\,611}p^{9}-\frac{11\,730\,204\,945}{349\,222}p^{8} \\
& -\frac{1302\,376\,290}{174\,611}p^{7}+\frac{1054\,868\,910}{174\,611}p^{6}+6534p^{5}+3175p^{4}+950p^{3} \\
& +180p^{2}+20p+1)k^{20},
\end{aligned}
$$

$$
\begin{aligned}
E_{20}\left(q^{12}\right) = & \left(\frac{1}{1048\,576}p^{40}+\frac{5}{262\,144}p^{39}+\frac{45}{262\,144}p^{38}+\frac{10\,367\,425}{11\,443\,306\,496}p^{37}\right. \\
&+\frac{69\,294\,925}{22\,886\,612\,992}p^{36}+\frac{71\,290\,989}{11\,443\,306\,496}p^{35}+\frac{36\,305\,955}{5721\,653\,248}p^{34} \\
&+\frac{16\,633\,755}{5721\,653\,248}p^{33}+\frac{999\,590\,355}{22\,886\,612\,992}p^{32}+\frac{173\,342\,075}{1430\,413\,312}p^{31} \\
&-\frac{2395\,113\,227}{1430\,413\,312}p^{30}-\frac{5705\,331\,435}{357\,603\,328}p^{29}-\frac{44\,179\,109\,845}{715\,206\,656}p^{28} \\
&-\frac{16\,087\,374\,695}{178\,801\,664}p^{27}+\frac{19\,855\,618\,155}{89\,400\,832}p^{26}+\frac{124\,711\,192\,701}{89\,400\,832}p^{25} \\
&+\frac{1987\,639\,824\,195}{715\,206\,656}p^{24}+\frac{99\,698\,108\,985}{178\,801\,664}p^{23}-\frac{1697\,890\,834\,635}{178\,801\,664}p^{22} \\
&-\frac{935\,935\,221\,585}{44\,700\,416}p^{21}-\frac{1056\,483\,866\,565}{89\,400\,832}p^{20}+\frac{1341\,018\,629\,565}{44\,700\,416}p^{19} \\
&+\frac{1552\,706\,681\,055}{22\,350\,208}p^{18}+\frac{982\,091\,824\,695}{22\,350\,208}p^{17}-\frac{4430\,721\,627\,135}{89\,400\,832}p^{16} \\
&-\frac{1318\,772\,631\,303}{11\,175\,104}p^{15}-\frac{840\,497\,560\,965}{11\,175\,104}p^{14}+\frac{110\,625\,563\,695}{2793\,776}p^{13} \\
&+\frac{588\,727\,287\,385}{5587\,552}p^{12}+\frac{138\,285}{2}p^{11}-7496p^{10}-45\,625p^{9}-\frac{537\,435}{16}p^{8} \\
&\left.-\frac{29\,835}{4}p^{7}+\frac{24\,165}{4}p^{6}+6534p^{5}+3175p^{4}+950p^{3}+180p^{2}+20p+1\right)k^{20}.
\end{aligned}
$$

We can also similarly determine $f_1, \cdots, f_{30}$ and f_{31} in terms of p and k as in www.bariskendirli.com.tr/weight20/Table 2. Obviously, $f_1, \ldots f_{35}$ are functions of q, see (3),(15). We see that $\{f_1, \ldots f_{35}\} \setminus \{f_7, f_{12}, f_{14}, f_{15}, f_{17}, f_{18}, f_{35}\} \in S_{20}\left(\Gamma_0\left(12\right)\right)$, $f_7, f_{12}, f_{14}, f_{15}, f_{17}, f_{18}, f_{35} \in M_{20}\left(\Gamma_0\left(12\right)\right) \setminus S_{20}\left(\Gamma_0\left(12\right)\right)$ by [4]. Now

$$
\begin{aligned}
& \eta^{a_1}(z)\,\eta^{a_2}(2z)\,\eta^{a_3}(3z)\,\eta^{a_4}(4z)\,\eta^{a_6}(6z)\,\eta^{a_{12}}(12z) \\
= & \; q^{b_1}\prod_{n=1}^{\infty}(1-q^n)^{a_1}\left(1-q^{2n}\right)^{a_2}\left(1-q^{3n}\right)^{a_3}\left(1-q^{4n}\right)^{a_4}\left(1-q^{6n}\right)^{a_6}\left(1-q^{12n}\right)^{a_{12}} \\
= & \; 2^{-\frac{a_1}{6}-\frac{a_2}{3}-\frac{a_3}{6}-\frac{2a_4}{3}-\frac{a_6}{3}-\frac{2a_{12}}{3}}p^{\frac{a_1}{24}+\frac{a_2}{12}+\frac{a_3}{8}+\frac{a_4}{6}+\frac{a_6}{4}+\frac{a_{12}}{2}}(1-p)^{\frac{a_1}{2}+\frac{a_2}{4}+\frac{a_3}{6}+\frac{a_4}{8}+\frac{a_6}{12}+\frac{a_{12}}{24}} \\
& (1+p)^{\frac{a_1}{6}+\frac{a_2}{12}+\frac{a_3}{2}+\frac{a_4}{24}+\frac{a_6}{4}+\frac{a_{12}}{8}}(1+2p)^{\frac{a_1}{8}+\frac{a_2}{4}+\frac{a_3}{24}+\frac{a_4}{8}+\frac{a_6}{12}+\frac{a_{12}}{24}}(2+p)^{\frac{a_1}{8}+\frac{a_2}{4}+\frac{a_3}{24}+\frac{a_4}{2}+\frac{a_6}{12}+\frac{a_{12}}{6}} \\
& k^{\frac{a_1+a_2+a_3+a_4+a_6+a_{12}}{2}} = \frac{k^{20}}{2^{b_1+b_5}}p^{b_1}(1-p)^{b_2}(1+p)^{b_3}(1+2p)^{b_4}(2+p)^{b_5}
\end{aligned}
$$

$$
= \left(\sum_{i=0}^{40} k_i p^i\right)k^{20}
$$

$$\begin{aligned}
= \quad & \frac{174\,611c_1}{13\,200}\left(1+\frac{13200}{174611}\sum_{n=1}^{\infty}\sigma_{19}\left(n\right)q^{n}\right)+\frac{174\,611c_2}{13\,200}\left(1+\frac{13200}{174611}\sum_{n=1}^{\infty}\sigma_{19}\left(n\right)q^{2n}\right)\\
&+\frac{174\,611c_3}{13\,200}\left(1+\frac{13200}{174611}\sum_{n=1}^{\infty}\sigma_{19}\left(n\right)q^{3n}\right)+\frac{174\,611c_4}{13\,200}\left(1+\frac{13200}{174611}\sum_{n=1}^{\infty}\sigma_{19}\left(n\right)q^{4n}\right)\\
&+\frac{174\,611c_6}{13\,200}\left(1+\frac{13200}{174611}\sum_{n=1}^{\infty}\sigma_{19}\left(n\right)q^{6n}\right)+\frac{174\,611c_{12}}{13\,200}\left(1+\frac{13200}{174611}\sum_{n=1}^{\infty}\sigma_{19}\left(n\right)q^{12n}\right)\\
&+r_1q^7\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{43}\left(1-q^{6n}\right)^{43}}{\left(1-q^{2n}\right)^{29}\left(1-q^{12n}\right)^{17}}\\
&+r_2q^7\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{38}\left(1-q^{6n}\right)^{48}}{\left(1-q^{2n}\right)^{28}\left(1-q^{12}\right)^{18}}\\
&+r_3q^9\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{50}\left(1-q^{6n}\right)^{24}}{\left(1-q^{2n}\right)^{28}\left(1-q^{12n}\right)^{6}}\\
&+r_4q^3\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{50}\left(1-q^{6n}\right)^{48}}{\left(1-q^{2n}\right)^{28}\left(1-q^{12n}\right)^{30}}\\
&+r_5.q^9\prod_{n=1}^{\infty}\frac{\left(\left(1-q^{4n}\right)^{45}\left(1-q^{6n}\right)^{29}}{\left(1-q^{2n}\right)^{27}\left(1-q^{12n}\right)^{7}}\\
&+r_6q^9\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{40}\left(1-q^{6n}\right)^{34}}{\left(1-q^{2n}\right)^{26}\left(1-q^{12n}\right)^{8}}\\
&+r_7q^{19}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{44}\left(1-q^{12n}\right)^{36}}{\left(1-q^{2n}\right)^{22}\left(1-q^{6n}\right)^{18}}\\
&+r_8q^{19}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{47}\left(1-q^{6n}\right)^{15}\left(1-q^{12n}\right)^{3}}{\left(1-q^{2n}\right)^{25}}\\
&+r_9q^5\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{47}\left(1-q^{6n}\right)^{39}}{\left(1-q^{2n}\right)^{25}\left(1-q^{12n}\right)^{21}}\\
&+r_{10}q^9\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{30}\left(1-q^{6n}\right)^{44}}{\left(1-q^{2n}\right)^{24}\left(1-q^{12n}\right)^{10}}
\end{aligned}$$

$$+r_{11}q^{13}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{44}\left(1-q^{6n}\right)^{6}\left(1-q^{12n}\right)^{12}}{\left(1-q^{2n}\right)^{22}}$$
$$+r_{12}q^{15}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{15}\left(1-q^{4n}\right)^{35}\left(1-q^{12n}\right)^{11}}{\left(1-q^{6n}\right)^{21}}$$
$$+r_{13}q^{9}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{25}\left(1-q^{6n}\right)^{49}}{\left(1-q^{2n}\right)^{23}\left(1-q^{12n}\right)^{11}}$$
$$+r_{14}q^{17}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{27}\left(1-q^{6n}\right)^{11}\left(1-q^{12n}\right)^{23}}{\left(1-q^{2n}\right)^{21}}$$
$$+r_{15}q^{15}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{5}\left(1-q^{6n}\right)^{45}\left(1-q^{12n}\right)^{9}}{\left(1-q^{2n}\right)^{19}}$$
$$+r_{16}q^{13}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{49}\left(1-q^{6n}\right)\left(1-q^{12n}\right)^{13}}{\left(1-q^{2n}\right)^{23}}$$
$$+r_{17}q^{17}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{43}\left(1-q^{12n}\right)^{31}}{\left(1-q^{2n}\right)^{17}\left(1-q^{6n}\right)^{17}}$$
$$+r_{18}q^{15}\prod_{n=1}^{\infty}\frac{\left(1-q^{6n}\right)^{50}\left(1-q^{12n}\right)^{8}}{\left(1-q^{2n}\right)^{18}}$$
$$+r_{19}q^{16}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{12}\left(1-q^{6n}\right)^{20}\left(1-q^{12n}\right)^{20}}{\left(1-q^{2n}\right)^{12}}$$
$$+r_{20}q^{14}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{16}\left(1-q^{6n}\right)^{16}\left(1-q^{12n}\right)^{16}}{\left(1-q^{2n}\right)^{8}}$$
$$+r_{21}q^{12}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{20}\left(1-q^{6n}\right)^{12}\left(1-q^{12n}\right)^{12}}{\left(1-q^{2n}\right)^{4}}$$
$$+r_{22}q^{12}\prod_{n=1}^{\infty}\frac{\left(1-q^{4n}\right)^{15}\left(1-q^{6n}\right)^{17}\left(1-q^{12n}\right)^{11}}{\left(1-q^{2n}\right)^{3}}$$
$$+r_{23}q^{6}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{11}\left(1-q^{4n}\right)^{17}\left(1-q^{6n}\right)^{15}}{\left(1-q^{12n}\right)^{3}}$$
$$+r_{24}q^{14}\prod_{n=1}^{\infty}\left(1-q^{2n}\right)\left(1-q^{4n}\right)^{7}\left(1-q^{6n}\right)^{13}\left(1-q^{12n}\right)^{19}$$
$$+r_{25}q^{10}\prod_{n=1}^{\infty}\left(1-q^{2n}\right)\left(1-q^{4n}\right)^{19}\left(1-q^{6n}\right)^{13}\left(1-q^{12n}\right)^{17}$$

$$+r_{26}q^{14}\prod_{n=1}^{\infty}\left(1-q^{2n}\right)^{2}\left(1-q^{4n}\right)^{2}\left(1-q^{6n}\right)^{18}\left(1-q^{12n}\right)^{18}$$
$$+r_{27}q^{14}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{12}\left(1-q^{6n}\right)^{20}\left(1-q^{12n}\right)^{20}}{\left(1-q^{4n}\right)^{12}}$$
$$+r_{28}q^{12}\prod_{n=1}^{\infty}\left(1-q^{2n}\right)^{4}\left(1-q^{4n}\right)^{16}\left(1-q^{6n}\right)^{4}\left(1-q^{12n}\right)^{16}$$
$$+r_{29}q^{12}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{16}\left(1-q^{6n}\right)^{16}\left(1-q^{12n}\right)^{16}}{\left(1-q^{4n}\right)^{8}}$$
$$+r_{30}q^{10}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{16}\left(1-q^{4n}\right)^{16}\left(1-q^{12n}\right)^{16}}{\left(1-q^{6n}\right)^{8}}$$
$$+r_{31}q^{8}\prod_{n=1}^{\infty}\left(1-q^{2n}\right)^{6}\left(1-q^{4n}\right)^{18}\left(1-q^{6n}\right)^{14}\left(1-q^{12n}\right)^{2}$$
$$+r_{32}q^{4}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{16}\left(1-q^{4n}\right)^{16}\left(1-q^{6n}\right)^{16}}{\left(1-q^{12n}\right)^{8}}$$
$$+r_{33}q^{8}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{20}\left(1-q^{4n}\right)^{20}\left(1-q^{12n}\right)^{12}}{\left(1-q^{6n}\right)^{12}}$$
$$+r_{34}q^{2}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{20}\left(1-q^{4n}\right)^{20}\left(1-q^{6n}\right)^{12}}{\left(1-q^{12n}\right)^{12}}$$
$$+r_{35}\prod_{n=1}^{\infty}\frac{\left(1-q^{2n}\right)^{30}\left(1-q^{4n}\right)^{30}}{\left(1-q^{6n}\right)^{10}\left(1-q^{12n}\right)^{10}}$$

$$= \delta(b_1)+\sum_{n=1}^{\infty}(c_1\sigma_{19}(n)+c_2\sigma_{19}\left(\frac{n}{2}\right)+c_3\sigma_{19}\left(\frac{n}{3}\right)+c_4\sigma_{19}\left(\frac{n}{4}\right)$$
$$+c_6\sigma_{19}\left(\frac{n}{6}\right)+c_{12}\sigma_{19}\left(\frac{n}{12}\right))+r_1f_1(n)+....+r_{35}f_{35}(n),$$

where

$$\delta(b_1)=\begin{cases}0 \text{ if } b_1\neq 0\\ 1 \text{ if } b_1=0\end{cases}.$$

So

$$c(n) = (c_1\sigma_{19}(n)+c_2\sigma_{19}\left(\frac{n}{2}\right)+c_3\sigma_{19}\left(\frac{n}{3}\right)+c_4\sigma_{19}\left(\frac{n}{4}\right)$$
$$+c_6\sigma_{19}\left(\frac{n}{6}\right)+c_{12}\sigma_{19}\left(\frac{n}{12}\right))+r_1f_1(n)+....+r_{35}f_{35}(n).$$

Therefore, for n=1,2,. . . ,

$$c(2n) = c_1\sigma_{19}(2n)+c_2\sigma_{19}(n)+c_4\sigma_{19}\left(\frac{n}{2}\right)+(1048\,577c_3+c_6)\,\sigma_{19}\left(\frac{n}{3}\right)$$
$$+(c_{12}-1048\,576c_3)\sigma_{19}\left(\frac{n}{6}\right)+r_{19}f_{19}(2n)+\cdots+r_{35}f_{35}(2n),$$

$$c(2n-1) = c_1\sigma_{19}(2n-1)+c_3\sigma_{19}\left(\frac{2n-1}{3}\right)$$
$$+r_1f_1(2n-1)+\cdots+r_{18}f_{18}(2n-1),$$

since it is easy to see that

$$\sigma_k\left(\frac{2n}{3}\right)=\left(2^k+1\right)\sigma_k\left(\frac{n}{3}\right)-2^k\sigma_k\left(\frac{n}{6}\right)$$

hence,

$$\sigma_{19}\left(\frac{2n}{3}\right)=1048\,577\sigma_{19}\left(\frac{n}{3}\right)-1048\,576\sigma_{19}\left(\frac{n}{6}\right)$$

and use the Lemma before the Theorem.

3. Conclusion

We have found 570 eta quotients, see Table 4, such that, for $n=1,2,\cdots$,

$$\begin{aligned} & c(2n)=c_1\sigma_{19}\left(2n\right)+c_2\sigma_{19}\left(n\right)+c_4\sigma_{19}\left(\frac{n}{2}\right)+\left(1048\,577c_3+c_6\right)\sigma_{19}\left(\frac{n}{3}\right) \\ & +(c_{12}-1048\,576c_3)\sigma_{19}\left(\frac{n}{6}\right) \\ c(2n-1) &= c_1\sigma_{19}\left(2n-1\right)+c_3\sigma_{19}\left(\frac{2n-1}{3}\right)+r_1f_1(2n-1)+\cdots+r_{18}f_{18}(2n-1). \end{aligned}$$

and 1208 eta quotients, such that for $n=1,2,\cdots$,

$$\begin{aligned} c(2n) &= c_1\sigma_{19}\left(2n\right)+c_2\sigma_{19}\left(n\right)+c_4\sigma_{19}\left(\frac{n}{2}\right)+c_6\sigma_{19}\left(\frac{n}{3}\right) \\ & +c_{12}\sigma_{19}\left(\frac{n}{6}\right)+r_{19}f_{19}(2n)+\cdots+r_{35}f_{35}(2n), \\ c(2n-1) &= 0. \end{aligned}$$

Moreover, if f is an eta quotient, then the coefficients of $\frac{1}{2}\left(f(q)+f(-q)\right)$ are exactly the even coefficients of f. In particular, it means that we have obtained all coefficients of some sum of 570 eta quotients.

Table 4

THE ETA QUOTIENTS WHOSE EVEN COEFFICIENTS CAN BE EXPLICITLY CALCULATED

t	HAM	HPM								
No	a_2	a_4	a_6	a_{12}	c_1	c_2	c_3	c_4	c_6	c_{12}
1	−41	31	103	−53	$\frac{1}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{12\,709\,329\,141\,645}$	0	$\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
2	−40	26	108	−54	$\frac{7}{38\,127\,987\,424\,935}$	$-\frac{1223\,341}{12\,709\,329\,141\,645}$	0	$\frac{3670\,016}{38\,127\,987\,424\,935}$	0	0
3	−39	21	113	−55	$-\frac{708\,362\,521\,963}{114\,383\,962\,274\,805}$	$\frac{123\,795\,559\,425\,819\,769}{38\,127\,987\,424\,935}$	$\frac{1}{19\,683}$	$-\frac{371\,385\,969\,914\,937\,344}{114\,383\,962\,274\,805}$	$-\frac{174\,763}{6561}$	$\frac{524\,288}{19\,683}$
4	−33	27	95	−49	$\frac{1}{4236\,443\,047\,215}$	$-\frac{174\,763}{1412\,147\,682\,405}$	0	$\frac{524\,288}{4236\,443\,047\,215}$	0	0
5	−32	22	100	−50	$\frac{11}{7625\,597\,484\,987}$	$-\frac{1922\,393}{2541\,865\,828\,329}$	0	$\frac{5767\,168}{7625\,597\,484\,987}$	0	0
6	−31	17	105	−51	$-\frac{425\,017\,513\,189}{7625\,597\,484\,987}$	$\frac{74\,277\,335\,657\,449\,207}{2541\,865\,828\,329}$	$\frac{1}{2187}$	$-\frac{222\,831\,581\,954\,834\,432}{7625\,597\,484\,987}$	$-\frac{174\,763}{729}$	$\frac{524\,288}{2187}$
7	−25	23	87	−45	$\frac{1}{470\,715\,894\,135}$	$-\frac{174\,763}{156\,905\,298\,045}$	0	$\frac{524\,288}{470\,715\,894\,135}$	0	0
8	−24	18	92	−46	$\frac{47}{4236\,443\,047\,215}$	$-\frac{8213\,861}{1412\,147\,682\,405}$	0	$\frac{24\,641\,536}{4236\,443\,047\,215}$	0	0
9	−23	13	97	−47	$-\frac{3825\,157\,618\,789}{7625\,597\,484\,987}$	$\frac{668\,496\,020\,932\,422\,007}{2541\,865\,828\,329}$	$\frac{1}{243}$	$-\frac{2005\,484\,237\,639\,647\,232}{7625\,597\,484\,987}$	$-\frac{174\,763}{81}$	$\frac{524\,288}{243}$
10	−17	19	79	−41	$\frac{1}{52\,301\,766\,015}$	$-\frac{174\,763}{17\,433\,922\,005}$	0	$\frac{524\,288}{52\,301\,766\,015}$	0	0
11	−16	14	84	−42	$\frac{13}{156\,905\,298\,045}$	$-\frac{2271\,919}{52\,301\,766\,015}$	0	$\frac{6815\,744}{156\,905\,298\,045}$	0	0
12	−15	9	89	−43	$-\frac{6375\,262\,698\,107}{1412\,147\,682\,405}$	$\frac{1114\,160\,034\,909\,273\,641}{470\,715\,894\,135}$	$\frac{1}{27}$	$-\frac{3342\,473\,729\,465\,122\,816}{1412\,147\,682\,405}$	$-\frac{174\,763}{9}$	$\frac{524\,288}{27}$
13	−9	15	71	−37	$\frac{1}{5811\,307\,335}$	$-\frac{174\,763}{1937\,102\,445}$	0	$\frac{524\,288}{5811\,307\,335}$	0	0
14	−8	10	76	−38	$\frac{31}{52\,301\,766\,015}$	$-\frac{5417\,653}{17\,433\,922\,005}$	0	$\frac{16\,252\,928}{52\,301\,766\,015}$	0	0
15	−7	5	81	−39	$-\frac{6375\,262\,698\,211}{156\,905\,298\,045}$	$\frac{1114\,160\,034\,927\,448\,993}{52\,301\,766\,015}$	$\frac{1}{3}$	$-\frac{3342\,473\,729\,519\,648\,768}{156\,905\,298\,045}$	−174 763	$\frac{524\,288}{3}$
16	−1	11	63	−33	$\frac{1}{645\,700\,815}$	$-\frac{174\,763}{215\,233\,605}$	0	$\frac{524\,288}{645\,700\,815}$	0	0
17	0	6	68	−34	$\frac{23}{5811\,307\,335}$	$-\frac{4019\,549}{1937\,102\,445}$	0	$\frac{12\,058\,624}{5811\,307\,335}$	0	0
18	1	1	73	−35	$-\frac{19\,125\,788\,094\,881}{52\,301\,766\,015}$	$\frac{3342\,480\,104\,825\,688\,203}{17\,433\,922\,005}$	3	$-\frac{10\,027\,421\,188\,688\,969\,728}{52\,301\,766\,015}$,	−1572 867	1572 864
19	7	7	55	−29	$\frac{1}{71\,744\,535}$	$-\frac{174\,763}{23\,914\,845}$	0	$\frac{524\,288}{71\,744\,535}$	0	0
20	8	2	60	−30	$\frac{1}{43\,046\,721}$	$-\frac{174\,763}{14\,348\,907}$	0	$\frac{524\,288}{43\,046\,721}$	0	0
21	9	−3	65	−31	$-\frac{1275\,052\,539\,671}{387\,420\,489}$	$\frac{222\,832\,006\,990\,522\,973}{129\,140\,163}$	27	$-\frac{668\,494\,745\,919\,029\,248}{387\,420\,489}$	−14 155 803	14 155 776
22	15	3	47	−25	$\frac{1}{7971\,615}$	$-\frac{174\,763}{2657\,205}$	0	$\frac{524\,288}{7971\,615}$	0	0
23	16	−2	52	−26	$\frac{7}{71\,744\,535}$	$-\frac{1223\,341}{23\,914\,845}$	0	$\frac{3670\,016}{71\,744\,535}$	0	0
24	17	−7	57	−27	$-\frac{1275\,052\,539\,679}{43\,046\,721}$	$\frac{222\,832\,006\,991\,921\,077}{14\,348\,907}$	243	$-\frac{668\,494\,745\,923\,223\,552}{43\,046\,721}$	−127 402 227	127 401 984
25	23	−1	39	−21	$\frac{1}{885\,735}$	$-\frac{174\,763}{295\,245}$	0	$\frac{524\,288}{885\,735}$	0	0
26	24	−6	44	−22	$-\frac{1}{7971\,615}$	$\frac{174\,763}{2657\,205}$	0	$-\frac{524\,288}{7971\,615}$	0	0
27	25	−11	49	−23	$-\frac{19\,125\,788\,095\,241}{71\,744\,535}$	$\frac{3342\,480\,104\,888\,602\,883}{23\,914\,845}$	2187	$-\frac{10\,027\,421\,188\,877\,713\,408}{71\,744\,535}$	−1146 620 043	1146 617 856
28	31	−5	31	−17	$\frac{1}{98\,415}$	$-\frac{174\,763}{32\,805}$	0	$\frac{524\,288}{98\,415}$	0	0
29	32	−10	36	−18	$-\frac{1}{98\,415}$	$\frac{174\,763}{32\,805}$	0	$-\frac{524\,288}{98\,415}$	0	0
30	33	−15	41	−19	$-\frac{2125\,087\,566\,137}{885\,735}$	$\frac{371\,386\,678\,320\,800\,531}{295\,245}$	19 683	$-\frac{1114\,157\,909\,874\,835\,456}{885\,735}$	−10 319 580 387	10 319 560 704
31	39	−9	23	−13	$\frac{1}{10\,935}$	$-\frac{174\,763}{3645}$	0	$\frac{524\,288}{10\,935}$	0	0
32	40	−14	28	−14	$-\frac{17}{98\,415}$	$\frac{2970\,971}{32\,805}$	0	$-\frac{8912\,896}{98\,415}$	0	0
33	41	−19	33	−15	$-\frac{236\,120\,840\,681}{10\,935}$	$\frac{41\,265\,186\,479\,933\,603}{3645}$	177 147	$-\frac{123\,795\,323\,318\,960\,128}{10\,935}$	−92 876 223 483	92 876 046 336
34	47	−13	15	−9	$\frac{1}{1215}$	$-\frac{174\,763}{405}$	0	$\frac{524\,288}{1215}$	0	0
35	48	−18	20	−10	$-\frac{5}{2187}$	$\frac{873\,815}{729}$	0	$-\frac{2621\,440}{2187}$	0	0
36	49	−23	25	−11	$-\frac{3825\,157\,619\,005}{19\,683}$	$\frac{668\,496\,020\,970\,170\,815}{6561}$	1594 323	$-\frac{2005\,484\,237\,752\,893\,440}{19\,683}$	−835 886 011 347	835 884 417 024
37	55	−17	7	−5	$\frac{1}{135}$	$-\frac{174\,763}{45}$	0	$\frac{524\,288}{135}$	0	0
38	56	−22	12	−6	$-\frac{11}{405}$	$\frac{1922\,393}{135}$	0	$-\frac{5767\,168}{405}$	0	0
39	57	−27	17	−7	$-\frac{1275\,052\,539\,655}{729}$	$\frac{222\,832\,006\,987\,726\,765}{243}$	14 348 907	$-\frac{668\,494\,745\,910\,640\,640}{729}$	−7522 974 102 123	7522 959 753 216
40	63	−21	−1	−1	$\frac{1}{15}$	$-\frac{174\,763}{5}$	0	$\frac{524\,288}{15}$	0	0
41	64	−26	4	−2	$-\frac{41}{135}$	$\frac{7165\,283}{45}$	0	$-\frac{21\,495\,808}{135}$	0	0
42	65	−31	9	−3	$-\frac{6375\,262\,698\,187}{405}$	$\frac{1114\,160\,034\,923\,254\,681}{135}$	129 140 163	$-\frac{3342\,473\,729\,507\,065\,856}{405}$	−67 706 766 919 107	67 706 637 778 944
43	71	−25	−9	3	$\frac{3}{5}$	$-\frac{1572\,867}{5}$	0	$\frac{1572\,864}{5}$	0	0

44	72	−30	−4	2	$-\frac{49}{15}$	$\frac{8563\,387}{5}$	0	$-\frac{25\,690\,112}{15}$	0	0
45	73	−35	1	1	$-\frac{19\,125\,788\,094\,233}{135}$	$\frac{3342\,480\,104\,712\,441\,779}{45}$	1162 261 467	$-\frac{10\,027\,421\,188\,349\,231\,104}{135}$	−609 360 902 271 963	609 359 740 010 496
46	79	−29	−17	7	$\frac{27}{5}$	$-\frac{14\,155\,803}{5}$	0	$\frac{14\,155\,776}{5}$	0	0
47	80	−34	−12	6	$-\frac{171}{5}$	$\frac{89\,653\,419}{5}$	0	$-\frac{89\,653\,248}{5}$	0	0
48	81	−39	−7	5	$-\frac{6375\,262\,697\,947}{5}$	$\frac{3342\,480\,104\,643\,934\,683}{5}$	10 460 353 203	$-\frac{3342\,473\,729\,381\,236\,736}{5}$	−5484 248 120 447 667	5484 237 660 094 464
49	87	−33	−25	11	$\frac{243}{5}$	$-\frac{127\,402\,227}{5}$	0	$\frac{127\,401\,984}{5}$	0	0
50	88	−38	−20	10	−351	184 025 439	0	−184 025 088	0	0
51	89	−43	−15	9	−11 475 472 856 031	6016 464 188 215 636 959	94 143 178 827	−6016 452 712 742 780 928	−49 358 233 084 029 003	49 358 138 940 850 17
52	95	−37	−33	15	$\frac{2187}{5}$	$-\frac{1146\,620\,043}{5}$	0	$\frac{1146\,617\,856}{5}$	0	0
53	96	−42	−28	14	$-\frac{17\,739}{5}$	$\frac{9300\,362\,571}{5}$	0	$-\frac{9300\,344\,832}{5}$	0	0
54	97	−47	−23	13	−103 279 255 701 471	54 148 177 692 468 529 119	847 288 609 443	−54 148 074 413 212 827 648	−444 224 097 756 261 027	444 223 250 467 651 58
55	104	−46	−36	18	$-\frac{177\,147}{5}$	$\frac{92\,876\,223\,483}{5}$	0	$-\frac{92\,876\,046\,336}{5}$	0	0
56	105	−51	−31	17	$-\frac{4647\,566\,506\,424\,283}{5}$	$\frac{2436\,667\,996\,086\,680\,909\,787}{5}$	7625 597 484 987	$-\frac{2436\,663\,348\,520\,174\,485\,504}{5}$	−3998 016 879 806 349 243	3998 009 254 208 864 2
57	113	−55	−39	21	$-\frac{41\,828\,098\,556\,401\,371}{5}$	$\frac{21\,930\,011\,964\,037\,118\,400\,219}{5}$	68 630 377 364 883	$-\frac{21\,929\,970\,135\,938\,561\,998\,848}{5}$	−35 982 151 918 257 143 187	35 982 083 287 879 778 3
58	−38	28	94	−44	$-\frac{1}{38\,127\,987\,424\,935}$	$\frac{174\,763}{12\,709\,329\,141\,645}$	0	$-\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
59	−37	23	99	−45	$-\frac{2}{12\,709\,329\,141\,645}$	$\frac{349\,526}{4236\,443\,047\,215}$	0	$-\frac{1048\,576}{12\,709\,329\,141\,645}$	0	0
60	−36	18	104	−46	$\frac{708\,362\,521\,984}{114\,383\,962\,274\,805}$	$-\frac{123\,795\,559\,429\,489\,792}{38\,127\,987\,424\,935}$	$-\frac{1}{19\,683}$	$\frac{371\,385\,969\,925\,947\,392}{114\,383\,962\,274\,805}$	$\frac{174\,763}{6561}$	$-\frac{524\,288}{19\,683}$
61	−30	24	86	−40	$-\frac{1}{4236\,443\,047\,215}$	$\frac{174\,763}{1412\,147\,682\,405}$	0	$-\frac{524\,288}{4236\,443\,047\,215}$	0	0
62	−29	19	91	−41	$-\frac{46}{38\,127\,987\,424\,935}$	$\frac{8039\,098}{12\,709\,329\,141\,645}$	0	$-\frac{24\,117\,248}{38\,127\,987\,424\,935}$	0	0
63	−28	14	96	−42	$\frac{141\,672\,504\,400}{2541\,865\,828\,329}$	$-\frac{24\,759\,111\,886\,457\,200}{847\,288\,609\,443}$	$-\frac{1}{2187}$	$\frac{74\,277\,193\,986\,867\,200}{2541\,865\,828\,329}$	$\frac{174\,763}{729}$	$-\frac{524\,288}{2187}$
64	−22	20	78	−36	$-\frac{1}{470\,715\,894\,135}$	$\frac{174\,763}{156\,905\,298\,045}$	0	$-\frac{524\,288}{470\,715\,894\,135}$	0	0
65	−21	15	83	−37	$-\frac{38}{4236\,443\,047\,215}$	$\frac{6640\,994}{1412\,147\,682\,405}$	0	$-\frac{19\,922\,944}{4236\,443\,047\,215}$	0	0
66	−20	10	88	−38	$\frac{19\,125\,788\,094\,368}{38\,127\,987\,424\,935}$	$-\frac{3342\,480\,104\,736\,034\,784}{12\,709\,329\,141\,645}$	$-\frac{1}{243}$	$\frac{10\,027\,421\,188\,420\,009\,984}{38\,127\,987\,424\,935}$	$\frac{174\,763}{81}$	$-\frac{524\,288}{243}$
67	−14	16	70	−32	$-\frac{1}{52\,301\,766\,015}$	$\frac{174\,763}{17\,433\,922\,005}$	0	$-\frac{524\,288}{52\,301\,766\,015}$	0	0
68	−13	11	75	−33	$-\frac{2}{31\,381\,059\,609}$	$\frac{349\,526}{10\,460\,353\,203}$	0	$-\frac{1048\,576}{31\,381\,059\,609}$	0	0
69	−12	6	80	−34	$\frac{6375\,262\,698\,224}{1412\,147\,682\,405}$	$-\frac{1114\,160\,034\,929\,720\,912}{470\,715\,894\,135}$	$-\frac{1}{27}$	$\frac{3342\,473\,729\,526\,464\,512}{1412\,147\,682\,405}$	$\frac{174\,763}{9}$	$-\frac{524\,288}{27}$
70	−6	12	62	−28	$-\frac{1}{5811\,307\,335}$	$\frac{174\,763}{1937\,102\,445}$	0	$-\frac{524\,288}{5811\,307\,335}$	0	0
71	−5	7	67	−29	$-\frac{22}{52\,301\,766\,015}$	$\frac{3844\,786}{17\,433\,922\,005}$	0	$-\frac{11\,534\,336}{52\,301\,766\,015}$	0	0
72	−4	2	72	−30	$\frac{6375\,262\,698\,304}{156\,905\,298\,045}$	$-\frac{1114\,160\,034\,943\,701\,952}{52\,301\,766\,015}$	$-\frac{1}{3}$	$\frac{3342\,473\,729\,568\,407\,552}{156\,905\,298\,045}$	174 763	$-\frac{524\,288}{3}$
73	2	8	54	−24	$-\frac{1}{645\,700\,815}$	$\frac{174\,763}{215\,233\,605}$	0	$-\frac{524\,288}{645\,700\,815}$	0	0
74	3	3	59	−25	$-\frac{14}{5811\,307\,335}$	$\frac{2446\,682}{1937\,102\,445}$	0	$-\frac{7340\,032}{5811\,307\,335}$	0	0
75	4	−2	64	−26	$\frac{19\,125\,788\,095\,088}{52\,301\,766\,015}$	$-\frac{3342\,480\,104\,861\,864\,144}{17\,433\,922\,005}$	−3	$\frac{10\,027\,421\,188\,797\,497\,344}{52\,301\,766\,015}$	1572 867	−1572 864
76	10	4	46	−20	$-\frac{1}{71\,744\,535}$	$\frac{174\,763}{23\,914\,845}$	0	$-\frac{524\,288}{71\,744\,535}$	0	0
77	11	−1	51	−21	$-\frac{2}{215\,233\,605}$	$\frac{349\,526}{71\,744\,535}$	0	$-\frac{1048\,576}{215\,233\,605}$	0	0
78	12	−6	56	−22	$\frac{1275\,052\,539\,680}{387\,420\,489}$	$-\frac{222\,832\,006\,992\,095\,840}{129\,140\,163}$	−27	$\frac{668\,494\,745\,923\,747\,840}{387\,420\,489}$	14 155 803	−14 155 776
79	18	0	38	−16	$-\frac{1}{7971\,615}$	$\frac{174\,763}{2657\,205}$	0	$-\frac{524\,288}{7971\,615}$	0	0
80	19	−5	43	−17	$\frac{2}{71\,744\,535}$	$-\frac{349\,526}{23\,914\,845}$	0	$\frac{1048\,576}{71\,744\,535}$	0	0
81	20	−10	48	−18	$\frac{6375\,262\,698\,416}{215\,233\,605}$	$-\frac{1114\,160\,034\,963\,275\,408}{71\,744\,535}$	−243	$\frac{3342\,473\,729\,627\,127\,808}{215\,233\,605}$	127 402 227	−127 401 984
82	26	−4	30	−12	$-\frac{1}{885\,735}$	$\frac{174\,763}{295\,245}$	0	$-\frac{524\,288}{885\,735}$	0	0
83	27	−9	35	−13	$\frac{2}{1594\,323}$	$-\frac{349\,526}{531\,441}$	0	$\frac{1048\,576}{1594\,323}$	0	0
84	28	−14	40	−14	$\frac{19\,125\,788\,095\,232}{71\,744\,535}$	$-\frac{3342\,480\,104\,887\,030\,016}{23\,914\,845}$	−2187	$\frac{10\,027\,421\,188\,872\,994\,816}{71\,744\,535}$	1146 620 043	−1146 617 856
85	34	−8	22	−8	$-\frac{1}{98\,415}$	$\frac{174\,763}{32\,805}$	0	$-\frac{524\,288}{98\,415}$	0	0
86	35	−13	27	−9	$\frac{2}{98\,415}$	$-\frac{349\,526}{32\,805}$	0	$\frac{1048\,576}{98\,415}$	0	0
87	36	−18	32	−10	$\frac{2125\,087\,566\,128}{885\,735}$	$-\frac{371\,386\,678\,319\,227\,664}{295\,245}$	−19 683	$\frac{1114\,157\,909\,870\,116\,864}{885\,735}$	10 319 580 387	−10 319 560 704
88	42	−12	14	−4	$-\frac{1}{10\,935}$	$\frac{174\,763}{3645}$	0	$-\frac{524\,288}{10\,935}$	0	0
89	43	−17	19	−5	$\frac{26}{98\,415}$	$-\frac{4543\,838}{32\,805}$	0	$\frac{13\,631\,488}{98\,415}$	0	0
90	44	−22	24	−6	$\frac{2125\,087\,566\,112}{98\,415}$	$-\frac{371\,386\,678\,316\,431\,456}{32\,805}$	−177 147	$\frac{1114\,157\,909\,861\,728\,256}{98\,415}$	92 876 223 483	−92 876 046 336
91	50	−16	6	0	$-\frac{1}{1215}$	$\frac{174\,763}{405}$	0	$-\frac{524\,288}{1215}$	0	0
92	51	−21	11	−1	$\frac{34}{10\,935}$	$-\frac{5941\,942}{3645}$	0	$\frac{17\,825\,792}{10\,935}$	0	0
93	52	−26	16	−2	$\frac{3825\,157\,618\,960}{19\,683}$	$-\frac{668\,496\,020\,962\,306\,480}{6561}$	−1594 323	$\frac{2005\,484\,237\,729\,300\,480}{19\,683}$	835 886 011 347	−835 884 417 024
94	58	−20	−2	4	$-\frac{1}{135}$	$\frac{174\,763}{45}$	0	$-\frac{524\,288}{135}$	0	0
95	59	−25	3	3	$\frac{14}{405}$	$-\frac{2446\,682}{135}$	0	$\frac{7340\,032}{405}$	0	0
96	60	−30	8	2	$\frac{6375\,262\,698\,176}{3645}$	$-\frac{1114\,160\,034\,921\,332\,288}{1215}$	−14 348 907	$\frac{3342\,473\,729\,501\,298\,688}{3645}$	7522 974 102 123	−7522 959 753 216

97	66	−24	−10	8	$-\frac{1}{15}$	$\frac{174\,763}{5}$	0	$-\frac{524\,288}{15}$	0	0
98	67	−29	−5	7	$\frac{10}{27}$	$-\frac{1747\,630}{9}$	0	$\frac{5242\,880}{27}$	0	0
99	68	−34	0	6	$\frac{6375\,262\,698\,064}{405}$	$-\frac{1114\,160\,034\,901\,758\,832}{135}$	−129 140 163	$\frac{3342\,473\,729\,442\,578\,432}{405}$	67 706 766 919 107	−67 706 637 778 944
100	74	−28	−18	12	$-\frac{3}{5}$	$\frac{1572\,867}{5}$	0	$-\frac{1572\,864}{5}$	0	0
101	75	−33	−13	11	$\frac{58}{15}$	$-\frac{10\,136\,254}{5}$	0	$\frac{30\,408\,704}{15}$	0	0
102	76	−38	−8	10	$\frac{19\,125\,788\,093\,792}{135}$	$-\frac{3342\,480\,104\,635\,371\,296}{45}$	−1162 261 467	$\frac{10\,027\,421\,188\,118\,020\,096}{135}$	609 360 902 271 963	−609 359 740 010 496
103	82	−32	−26	16	$-\frac{27}{5}$	$\frac{14\,155\,803}{5}$	0	$-\frac{14\,155\,776}{5}$	0	0
104	83	−37	−21	15	$\frac{198}{5}$	$-\frac{103\,809\,222}{5}$	0	$\frac{103\,809\,024}{5}$	0	0
105	84	−42	−16	14	$\frac{6375\,262\,697\,776}{5}$	$-\frac{3342\,480\,104\,554\,281\,264}{5}$	−10 460 353 203	$\frac{3342\,473\,729\,291\,583\,488}{5}$	5484 248 120 447 667	−5484 237 660 094 46
106	90	−36	−34	20	$-\frac{243}{5}$	$\frac{127\,402\,227}{5}$	0	$-\frac{127\,401\,984}{5}$	0	0
107	91	−41	−29	19	$\frac{1998}{5}$	$-\frac{1047\,529\,422}{5}$	0	$\frac{1047\,527\,424}{5}$	0	0
108	92	−46	−24	18	11 475 472 855 680	−6016 464 188 031 611 520	−94 143 178 827	6016 452 712 558 755 840	49 358 233 084 029 003	−49 358 138 940 850 17
109	99	−45	−37	23	$\frac{19\,926}{5}$	$-\frac{10\,446\,982\,614}{5}$	0	$\frac{10\,446\,962\,688}{5}$	0	0
110	100	−50	−32	22	$\frac{516\,396\,278\,489\,616}{5}$	$-\frac{270\,740\,888\,453\,042\,283\,024}{5}$	−847 288 609 443	$\frac{270\,740\,372\,056\,763\,793\,408}{5}$	444 224 097 756 261 027	−444 223 250 467 651 5
111	108	−54	−40	26	$\frac{4647\,566\,506\,424\,283}{5}$	$-\frac{2436\,667\,996\,086\,680\,909\,787}{5}$	−7625 597 484 987	$\frac{2436\,663\,348\,520\,174\,485\,504}{5}$	3998 016 879 806 349 243	−3998 009 254 208 864 2
112	−35	25	85	−35	$\frac{1}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{12\,709\,329\,141\,645}$	0	$\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
113	−34	20	90	−36	$\frac{1}{7625\,597\,484\,987}$	$-\frac{174\,763}{2541\,865\,828\,329}$	0	$\frac{524\,288}{7625\,597\,484\,987}$	0	0
114	−33	15	95	−37	$-\frac{708\,362\,521\,984}{114\,383\,962\,274\,805}$	$\frac{123\,795\,559\,429\,489\,792}{38\,127\,987\,424\,935}$	$\frac{1}{19\,683}$	$-\frac{371\,385\,969\,925\,947\,392}{114\,383\,962\,274\,805}$	$-\frac{174\,763}{6561}$	$\frac{524\,288}{19\,683}$
115	−27	21	77	−31	$\frac{1}{4236\,443\,047\,215}$	$-\frac{174\,763}{1412\,147\,682\,405}$	0	$\frac{524\,288}{4236\,443\,047\,215}$	0	0
116	−26	16	82	−32	$\frac{37}{38\,127\,987\,424\,935}$	$-\frac{6466\,231}{12\,709\,329\,141\,645}$	0	$\frac{19\,398\,656}{38\,127\,987\,424\,935}$	0	0
117	−25	11	87	−33	$-\frac{2125\,087\,566\,046}{38\,127\,987\,424\,935}$	$\frac{371\,386\,678\,304\,897\,098}{12\,709\,329\,141\,645}$	$\frac{1}{2187}$	$-\frac{1114\,157\,909\,827\,125\,248}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{729}$	$\frac{524\,288}{2187}$
118	−19	17	69	−27	$\frac{1}{470\,715\,894\,135}$	$-\frac{174\,763}{156\,905\,298\,045}$	0	$\frac{524\,288}{470\,715\,894\,135}$	0	0
119	−18	12	74	−28	$\frac{29}{4236\,443\,047\,215}$	$-\frac{5068\,127}{1412\,147\,682\,405}$	0	$\frac{15\,204\,352}{4236\,443\,047\,215}$	0	0
120	−17	7	79	−29	$-\frac{3825\,157\,618\,942}{7625\,597\,484\,987}$	$\frac{668\,496\,020\,959\,160\,746}{2541\,865\,828\,329}$	$\frac{1}{243}$	$-\frac{2005\,484\,237\,719\,863\,296}{7625\,597\,484\,987}$	$-\frac{174\,763}{81}$	$\frac{524\,288}{243}$
121	−11	13	61	−23	$\frac{1}{52\,301\,766\,015}$	$-\frac{174\,763}{17\,433\,922\,005}$	0	$\frac{524\,288}{52\,301\,766\,015}$	0	0
122	−10	8	66	−24	$\frac{7}{156\,905\,298\,045}$	$-\frac{1223\,341}{52\,301\,766\,015}$	0	$\frac{3670\,016}{156\,905\,298\,045}$	0	0
123	−9	3	71	−25	$-\frac{6375\,262\,698\,224}{1412\,147\,682\,405}$	$\frac{1114\,160\,034\,929\,720\,912}{470\,715\,894\,135}$	$\frac{1}{27}$	$-\frac{3342\,473\,729\,526\,464\,512}{1412\,147\,682\,405}$	$-\frac{174\,763}{9}$	$\frac{524\,288}{27}$
124	−3	9	53	−19	$\frac{1}{5811\,307\,335}$	$-\frac{174\,763}{1937\,102\,445}$	0	$\frac{524\,288}{5811\,307\,335}$	0	0
125	−2	4	58	−20	$\frac{13}{52\,301\,766\,015}$	$-\frac{2271\,919}{17\,433\,922\,005}$	0	$\frac{6815\,744}{52\,301\,766\,015}$	0	0
126	−1	−1	63	−21	$-\frac{1275\,052\,539\,674}{31\,381\,059\,609}$	$\frac{222\,832\,006\,991\,047\,262}{10\,460\,353\,203}$	$\frac{1}{3}$	$-\frac{668\,494\,745\,920\,602\,112}{31\,381\,059\,609}$	−174 763	$\frac{524\,288}{3}$
127	5	5	45	−15	$\frac{1}{645\,700\,815}$	$-\frac{174\,763}{215\,233\,605}$	0	$\frac{524\,288}{645\,700\,815}$	0	0
128	6	0	50	−16	$\frac{1}{1162\,261\,467}$	$-\frac{174\,763}{387\,420\,489}$	0	$\frac{524\,288}{1162\,261\,467}$	0	0
129	7	−5	55	−17	$-\frac{19\,125\,788\,095\,088}{52\,301\,766\,015}$	$\frac{3342\,480\,104\,861\,864\,144}{17\,433\,922\,005}$	3	$-\frac{10\,027\,421\,188\,797\,497\,344}{52\,301\,766\,015}$	−1572 867	1572 864
130	13	1	37	−11	$\frac{1}{71\,744\,535}$	$-\frac{174\,763}{23\,914\,845}$	0	$\frac{524\,288}{71\,744\,535}$	0	0
131	14	−4	42	−12	$-\frac{1}{215\,233\,605}$	$\frac{174\,763}{71\,744\,535}$	0	$-\frac{524\,288}{215\,233\,605}$	0	0
132	15	−9	47	−13	$-\frac{6375\,262\,698\,418}{1937\,102\,445}$	$\frac{1114\,160\,034\,963\,624\,934}{645\,700\,815}$	27	$-\frac{3342\,473\,729\,628\,176\,384}{1937\,102\,445}$	−14 155 803	14 155 776
133	21	−3	29	−7	$\frac{1}{7971\,615}$	$-\frac{174\,763}{2657\,205}$	0	$\frac{524\,288}{7971\,615}$	0	0
134	22	−8	34	−8	$-\frac{11}{71\,744\,535}$	$\frac{1922\,393}{23\,914\,845}$	0	$-\frac{5767\,168}{71\,744\,535}$	0	0
135	23	−13	39	−9	$-\frac{1275\,052\,539\,682}{43\,046\,721}$	$\frac{222\,832\,006\,992\,445\,366}{14\,348\,907}$	243	$-\frac{668\,494\,745\,924\,796\,416}{43\,046\,721}$,	−127 402 227	127 401 984
136	29	−7	21	−3	$\frac{1}{885\,735}$	$-\frac{174\,763}{295\,245}$	0	$\frac{524\,288}{885\,735}$	0	0
137	30	−12	26	−4	$-\frac{19}{7971\,615}$	$\frac{3320\,497}{2657\,205}$	0	$-\frac{9961\,472}{7971\,615}$	0	0
138	31	−17	31	−5	$-\frac{19\,125\,788\,095\,232}{71\,744\,535}$	$\frac{3342\,480\,104\,887\,030\,016}{23\,914\,845}$	2187	$-\frac{10\,027\,421\,188\,872\,994\,816}{71\,744\,535}$	−1146 620 043	1146 617 856
139	37	−11	13	1	$\frac{1}{98\,415}$	$-\frac{174\,763}{32\,805}$	0	$\frac{524\,288}{98\,415}$	0	0
140	38	−16	18	0	$-\frac{1}{32\,805}$	$\frac{174\,763}{10\,935}$	0	$-\frac{524\,288}{32\,805}$	0	0
141	39	−21	23	−1	$-\frac{425\,017\,513\,222}{177\,147}$	$\frac{74\,277\,335\,663\,216\,386}{59\,049}$	19 683	$-\frac{222\,831\,581\,972\,135\,936}{177\,147}$	−10 319 580 387	10 319 560 704
142	45	−15	5	5	$\frac{1}{10\,935}$	$-\frac{174\,763}{3645}$	0	$\frac{524\,288}{10\,935}$	0	0
143	46	−20	10	4	$-\frac{7}{19\,683}$	$\frac{1223\,341}{6561}$	0	$-\frac{3670\,016}{19\,683}$	0	0
144	47	−25	15	3	$-\frac{2125\,087\,566\,086}{98\,415}$	$\frac{371\,386\,678\,311\,887\,618}{32\,805}$	177 147	$-\frac{1114\,157\,909\,848\,096\,768}{98\,415}$	−92 876 223 483	92 876 046 336
145	53	−19	−3	9	$\frac{1}{1215}$	$-\frac{174\,763}{405}$	0	$\frac{524\,288}{1215}$	0	0
146	54	−24	2	8	$-\frac{43}{10\,935}$	$\frac{7514\,809}{3645}$	0	$-\frac{22\,544\,384}{10\,935}$	0	0
147	55	−29	7	7	$-\frac{19\,125\,788\,094\,494}{98\,415}$	$\frac{3342\,480\,104\,758\,054\,922}{32\,805}$	1594 323	$-\frac{10\,027\,421\,188\,486\,070\,272}{98\,415}$	−835 886 011 347	835 884 417 024
148	61	−23	−11	13	$\frac{1}{135}$	$-\frac{174\,763}{45}$	0	$\frac{524\,288}{135}$	0	0
149	62	−28	−6	12	$-\frac{17}{405}$	$\frac{2970\,971}{135}$	0	$-\frac{8912\,896}{405}$	0	0

150	63	−33	−1	11	$-\frac{1275 052 539 610}{729}$	$\frac{222 832 006 979 862 430}{243}$	14 348 907	$-\frac{668 494 745 887 047 680}{729}$	−7522 974 102 123	7522 959 753 216
151	69	−27	−19	17	$\frac{1}{15}$	$-\frac{174 763}{5}$	0	$\frac{524 288}{15}$	0	0
152	70	−32	−14	16	$-\frac{59}{135}$	$\frac{10 311 017}{45}$	0	$-\frac{30 932 992}{135}$	0	0
153	71	−37	−9	15	$-\frac{6375 262 698 064}{405}$	$\frac{1114 160 034 901 758 832}{135}$	129 140 163	$-\frac{3342 473 729 442 578 432}{405}$	−67 706 766 919 107	67 706 637 778 944
154	77	−31	−27	21	$\frac{3}{5}$	$-\frac{1572 867}{5}$	0	$\frac{1572 864}{5}$	0	0
155	78	−36	−22	20	$-\frac{67}{15}$	$\frac{11 709 121}{5}$	0	$-\frac{35 127 296}{15}$	0	0
156	79	−41	−17	19	$-\frac{3825 157 618 654}{27}$	$\frac{668 496 020 908 829 002}{9}$	1162 261 467	$-\frac{2005 484 237 568 868 352}{27}$	−609 360 902 271 963	609 359 740 010 496
157	85	−35	−35	25	$\frac{27}{5}$	$-\frac{14 155 803}{5}$	0	$\frac{14 155 776}{5}$	0	0
158	86	−40	−30	24	−45	23 593 005	0	−23 592 960	0	0
159	87	−45	−25	23	$-\frac{6375 262 697 776}{5}$	$\frac{3342 480 104 554 281 264}{5}$	10 460 353 203	$-\frac{3342 473 729 291 583 488}{5}$	−5484 248 120 447 667	5484 237 660 094 464
160	94	−44	−38	28	$-\frac{2241}{5}$	$\frac{1174 931 649}{5}$	0	$-\frac{1174 929 408}{5}$	0	0
161	95	−49	−33	27	$-\frac{57 377 364 276 402}{5}$	$\frac{30 082 320 939 110 528 178}{5}$	94 143 178 827	$-\frac{30 082 263 561 746 251 776}{5}$	−49 358 233 084 029 003	49 358 138 940 850 17
162	103	−53	−41	31	−103 279 255 693 938	54 148 177 688 519 060 082	847 288 609 443	−54 148 074 409 263 366 144	−444 224 097 756 261 027	444 223 250 467 651 58
163	−32	22	76	−26	$-\frac{1}{38 127 987 424 935}$	$\frac{174 763}{12 709 329 141 645}$	0	$-\frac{524 288}{38 127 987 424 935}$	0	0
164	−31	17	81	−27	$-\frac{4}{38 127 987 424 935}$	$\frac{699 052}{12 709 329 141 645}$	0	$-\frac{2097 152}{38 127 987 424 935}$	0	0
165	−30	12	86	−28	$\frac{708 362 522 017}{114 383 962 274 805}$	$-\frac{123 795 559 435 256 971}{38 127 987 424 935}$	$-\frac{1}{19 683}$	$\frac{371 385 969 943 248 896}{114 383 962 274 805}$	$\frac{174 763}{6561}$	$-\frac{524 288}{19 683}$
166	−24	18	68	−22	$-\frac{1}{4236 443 047 215}$	$\frac{174 763}{1412 147 682 405}$	0	$-\frac{524 288}{4236 443 047 215}$	0	0
167	−23	13	73	−23	$-\frac{28}{38 127 987 424 935}$	$\frac{4893 364}{12 709 329 141 645}$	0	$-\frac{14 680 064}{38 127 987 424 935}$	0	0
168	−22	8	78	−24	$\frac{2125 087 566 046}{38 127 987 424 935}$	$-\frac{371 386 678 304 897 098}{12 709 329 141 645}$	$-\frac{1}{2187}$	$\frac{1114 157 909 827 125 248}{38 127 987 424 935}$	$\frac{174 763}{729}$	$-\frac{524 288}{2187}$
169	−16	14	60	−18	$-\frac{1}{470 715 894 135}$	$\frac{174 763}{156 905 298 045}$	0	$-\frac{524 288}{470 715 894 135}$	0	0
170	−15	9	65	−19	$-\frac{4}{847 288 609 443}$	$\frac{699 052}{282 429 536 481}$	0	$-\frac{2097 152}{847 288 609 443}$	0	0
171	−14	4	70	−20	$\frac{19 125 788 094 368}{38 127 987 424 935}$	$-\frac{3342 480 104 736 034 784}{12 709 329 141 645}$	$-\frac{1}{243}$	$\frac{10 027 421 188 420 009 984}{38 127 987 424 935}$	$\frac{174 763}{81}$	$-\frac{524 288}{243}$
172	−8	10	52	−14	$-\frac{1}{52 301 766 015}$	$\frac{174 763}{17 433 922 005}$	0	$-\frac{524 288}{52 301 766 015}$	0	0
173	−7	5	57	−15	$-\frac{4}{156 905 298 045}$	$\frac{699 052}{52 301 766 015}$	0	$-\frac{2097 152}{156 905 298 045}$	0	0
174	−6	0	62	−16	$\frac{6375 262 698 107}{1412 147 682 405}$	$-\frac{1114 160 034 909 273 641}{470 715 894 135}$	$-\frac{1}{27}$	$\frac{3342 473 729 465 122 816}{1412 147 682 405}$	$\frac{174 763}{9}$	$-\frac{524 288}{27}$
175	0	6	44	−10	$-\frac{1}{5811 307 335}$	$\frac{174 763}{1937 102 445}$	0	$-\frac{524 288}{5811 307 335}$	0	0
176	1	1	49	−11	$-\frac{4}{52 301 766 015}$	$\frac{699 052}{17 433 922 005}$	0	$-\frac{2097 152}{52 301 766 015}$	0	0
177	2	−4	54	−12	$\frac{6375 262 698 211}{156 905 298 045}$	$-\frac{1114 160 034 927 448 993}{52 301 766 015}$	$-\frac{1}{3}$	$\frac{3342 473 729 519 648 768}{156 905 298 045}$	174 763	$-\frac{524 288}{3}$
178	8	2	36	−6	$-\frac{1}{645 700 815}$	$\frac{174 763}{215 233 605}$	0	$-\frac{524 288}{645 700 815}$	0	0
179	9	−3	41	−7	$\frac{4}{5811 307 335}$	$-\frac{699 052}{1937 102 445}$	0	$\frac{2097 152}{5811 307 335}$	0	0
180	10	−8	46	−8	$\frac{19 125 788 094 881}{52 301 766 015}$	$-\frac{3342 480 104 825 688 203}{17 433 922 005}$	−3	$\frac{10 027 421 188 688 969 728}{52 301 766 015}$,	1572 867	−1572 864
181	16	−2	28	−2	$-\frac{1}{71 744 535}$	$\frac{174 763}{23 914 845}$	0	$-\frac{524 288}{71 744 535}$	0	0
182	17	−7	33	−3	$\frac{4}{215 233 605}$	$-\frac{699 052}{71 744 535}$	0	$\frac{2097 152}{215 233 605}$	0	0
183	18	−12	38	−4	$\frac{6375 262 698 418}{1937 102 445}$	$-\frac{1114 160 034 963 624 934}{645 700 815}$	−27	$\frac{3342 473 729 628 176 384}{1937 102 445}$	14 155 803	−14 155 776
184	24	−6	20	2	$-\frac{1}{7971 615}$	$\frac{174 763}{2657 205}$	0	$-\frac{524 288}{7971 615}$	0	0
185	25	−11	25	1	$\frac{4}{14 348 907}$	$-\frac{699 052}{4782 969}$	0	$\frac{2097 152}{14 348 907}$	0	0
186	26	−16	30	0	$\frac{6375 262 698 416}{215 233 605}$	$-\frac{1114 160 034 963 275 408}{71 744 535}$	−243	$\frac{3342 473 729 627 127 808}{215 233 605}$	127 402 227	−127 401 984
187	32	−10	12	6	$-\frac{1}{885 735}$	$\frac{174 763}{295 245}$	0	$-\frac{524 288}{885 735}$	0	0
188	33	−15	17	5	$\frac{28}{7971 615}$	$-\frac{4893 364}{2657 205}$	0	$\frac{14 680 064}{7971 615}$	0	0
189	34	−20	22	4	$\frac{19 125 788 095 241}{71 744 535}$	$-\frac{3342 480 104 888 602 883}{23 914 845}$	−2187	$\frac{10 027 421 188 877 713 408}{71 744 535}$	1146 620 043	−1146 617 856
190	40	−14	4	10	$-\frac{1}{98 415}$	$\frac{174 763}{32 805}$	0	$-\frac{524 288}{98 415}$	0	0
191	41	−19	9	9	$\frac{4}{98 415}$	$-\frac{699 052}{32 805}$	0	$\frac{2097 152}{98 415}$	0	0
192	42	−24	14	8	$\frac{2125 087 566 137}{885 735}$	$-\frac{371 386 678 320 800 531}{295 245}$	−19 683	$\frac{1114 157 909 874 835 456}{885 735}$	10 319 580 387	−10 319 560 704
193	48	−18	−4	14	$-\frac{1}{10 935}$	$\frac{174 763}{3645}$	0	$-\frac{524 288}{10 935}$	0	0
194	49	−23	1	13	$\frac{44}{98 415}$	$-\frac{7689 572}{32 805}$	0	$\frac{23 068 672}{98 415}$	0	0
195	50	−28	6	12	$\frac{708 362 522 017}{32 805}$	$-\frac{123 795 559 435 256 971}{10 935}$	−177 147	$\frac{371 385 969 943 248 896}{32 805}$	92 876 223 483	−92 876 046 336
196	56	−22	−12	18	$-\frac{1}{1215}$	$\frac{174 763}{405}$	0	$-\frac{524 288}{1215}$	0	0
197	57	−27	−7	17	$\frac{52}{10 935}$	$-\frac{9087 676}{3645}$	0	$\frac{27 262 976}{10 935}$	0	0
198	58	−32	−2	16	$\frac{19 125 788 094 494}{98 415}$	$-\frac{3342 480 104 758 054 922}{32 805}$	−1594 323	$\frac{10 027 421 188 486 070 272}{98 415}$	835 886 011 347	−835 884 417 024
199	64	−26	−20	22	$-\frac{1}{135}$	$\frac{174 763}{45}$	0	$-\frac{524 288}{135}$	0	0
200	65	−31	−15	21	$\frac{4}{81}$	$-\frac{699 052}{27}$	0	$\frac{2097 152}{81}$	0	0
201	66	−36	−10	20	$\frac{6375 262 698 176}{3645}$	$-\frac{1114 160 034 921 332 288}{1215}$	−14 348 907	$\frac{3342 473 729 501 298 688}{3645}$	7522 974 102 123	−7522 959 753 216
202	72	−30	−28	26	$-\frac{1}{15}$	$\frac{174 763}{5}$	0	$-\frac{524 288}{15}$	0	0

203	73	−35	−23	25	$\frac{68}{135}$	$-\frac{11\,883\,884}{45}$	0	$\frac{35\,651\,584}{135}$	0	0
204	74	−40	−18	24	$\frac{6375\,262\,698\,187}{405}$	$-\frac{1114\,160\,034\,923\,254\,681}{135}$	−129 140 163	$\frac{3342\,473\,729\,507\,065\,856}{405}$	67 706 766 919 107	−67 706 637 778 944
205	80	−34	−36	30	$-\frac{3}{5}$	$\frac{1572\,867}{5}$	0	$-\frac{1572\,864}{5}$	0	0
206	81	−39	−31	29	$\frac{76}{15}$	$-\frac{13\,281\,988}{5}$	0	$\frac{39\,845\,888}{15}$	0	0
207	82	−44	−26	28	$\frac{19\,125\,788\,093\,792}{135}$	$-\frac{3342\,480\,104\,635\,371\,296}{45}$	−1162 261 467	$\frac{10\,027\,421\,188\,118\,020\,096}{135}$	609 360 902 271 963	−609 359 740 010 496
208	89	−43	−39	33	$\frac{252}{5}$	$-\frac{132\,120\,828}{5}$	0	$\frac{132\,120\,576}{5}$	0	0
209	90	−48	−34	32	$\frac{6375\,262\,697\,776}{5}$	$-\frac{3342\,480\,104\,554\,281\,264}{5}$	−10 460 353 203	$\frac{3342\,473\,729\,291\,583\,488}{5}$	5484 248 120 447 667	−5484 237 660 094 46
210	98	−52	−42	36	$\frac{57\,377\,364\,276\,402}{5}$	$-\frac{30\,082\,320\,939\,110\,528\,178}{5}$	−94 143 178 827	$-\frac{30\,082\,263\,561\,746\,251\,776}{5}$	49 358 233 084 029 003	−49 358 138 940 850 17
211	−29	19	67	−17	$\frac{1}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{12\,709\,329\,141\,645}$	0	$\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
212	−28	14	72	−18	$\frac{1}{12\,709\,329\,141\,645}$	$-\frac{174\,763}{4236\,443\,047\,215}$	0	$\frac{524\,288}{12\,709\,329\,141\,645}$	0	0
213	−27	9	77	−19	$-\frac{708\,362\,522\,017}{114\,383\,962\,274\,805}$	$\frac{123\,795\,559\,435\,256\,971}{38\,127\,987\,424\,935}$	$\frac{1}{19\,683}$	$-\frac{371\,385\,969\,943\,248\,896}{114\,383\,962\,274\,805}$	$-\frac{174\,763}{6561}$	$\frac{524\,288}{19\,683}$
214	−21	15	59	−13	$\frac{1}{4236\,443\,047\,215}$	$-\frac{174\,763}{1412\,147\,682\,405}$	0	$\frac{524\,288}{4236\,443\,047\,215}$	0	0
215	−20	10	64	−14	$\frac{19}{38\,127\,987\,424\,935}$	$-\frac{3320\,497}{12\,709\,329\,141\,645}$	0	$\frac{9961\,472}{38\,127\,987\,424\,935}$	0	0
216	−19	5	69	−15	$-\frac{78\,706\,946\,893}{1412\,147\,682\,405}$	$\frac{13\,755\,062\,159\,861\,359}{470\,715\,894\,135}$	$\frac{1}{2187}$	$-\frac{41\,265\,107\,772\,637\,184}{1412\,147\,682\,405}$	$-\frac{174\,763}{729}$	$\frac{524\,288}{2187}$
217	−13	11	51	−9	$\frac{1}{470\,715\,894\,135}$	$-\frac{174\,763}{156\,905\,298\,045}$	0	$\frac{524\,288}{470\,715\,894\,135}$	0	0
218	−12	6	56	−10	$\frac{11}{4236\,443\,047\,215}$	$-\frac{1922\,393}{1412\,147\,682\,405}$	0	$\frac{5767\,168}{4236\,443\,047\,215}$	0	0
219	−11	1	61	−11	$-\frac{19\,125\,788\,094\,368}{38\,127\,987\,424\,935}$	$\frac{3342\,480\,104\,736\,034\,784}{12\,709\,329\,141\,645}$	$\frac{1}{243}$	$-\frac{10\,027\,421\,188\,420\,009\,984}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{81}$	$\frac{524\,288}{243}$
220	−5	7	43	−5	$\frac{1}{52\,301\,766\,015}$	$-\frac{174\,763}{17\,433\,922\,005}$	0	$\frac{524\,288}{52\,301\,766\,015}$	0	0
221	−4	2	48	−6	$\frac{1}{156\,905\,298\,045}$	$-\frac{174\,763}{52\,301\,766\,015}$	0	$\frac{524\,288}{156\,905\,298\,045}$	0	0
222	−3	−3	53	−7	$-\frac{6375\,262\,698\,107}{1412\,147\,682\,405}$	$\frac{1114\,160\,034\,909\,273\,641}{470\,715\,894\,135}$	$\frac{1}{27}$	$-\frac{3342\,473\,729\,465\,122\,816}{1412\,147\,682\,405}$	$-\frac{174\,763}{9}$	$\frac{524\,288}{27}$
223	3	3	35	−1	$\frac{1}{5811\,307\,335}$	$-\frac{174\,763}{1937\,102\,445}$	0	$\frac{524\,288}{5811\,307\,335}$	0	0
224	4	−2	40	−2	$-\frac{1}{10\,460\,353\,203}$	$\frac{174\,763}{3486\,784\,401}$	0	$-\frac{524\,288}{10\,460\,353\,203}$	0	0
225	5	−7	45	−3	$-\frac{6375\,262\,698\,211}{156\,905\,298\,045}$	$\frac{1114\,160\,034\,927\,448\,993}{52\,301\,766\,015}$	$\frac{1}{3}$	$-\frac{3342\,473\,729\,519\,648\,768}{156\,905\,298\,045}$	−174 763	$\frac{524\,288}{3}$
226	11	−1	27	3	$\frac{1}{645\,700\,815}$	$-\frac{174\,763}{215\,233\,605}$	0	$\frac{524\,288}{645\,700\,815}$	0	0
227	12	−6	32	2	$-\frac{13}{5811\,307\,335}$	$\frac{2271\,919}{1937\,102\,445}$	0	$-\frac{6815\,744}{5811\,307\,335}$	0	0
228	13	−11	37	1	$-\frac{19\,125\,788\,094\,881}{52\,301\,766\,015}$	$\frac{3342\,480\,104\,825\,688\,203}{17\,433\,922\,005}$	3	$-\frac{10\,027\,421\,188\,688\,969\,728}{52\,301\,766\,015}$	−1572 867	1572 864
229	19	−5	19	7	$\frac{1}{71\,744\,535}$	$-\frac{174\,763}{23\,914\,845}$	0	$\frac{524\,288}{71\,744\,535}$	0	0
230	21	−15	29	5	$-\frac{7}{215\,233\,605}$	$\frac{1223\,341}{71\,744\,535}$	0	$-\frac{3670\,016}{215\,233\,605}$	0	0
231	21	−15	29	5	$-\frac{6375\,262\,698\,418}{1937\,102\,445}$	$\frac{1114\,160\,034\,963\,624\,934}{645\,700\,815}$	27	$-\frac{3342\,473\,729\,628\,176\,384}{1937\,102\,445}$	−14 155 803	14 155 776
232	27	−9	11	11	$\frac{1}{7971\,615}$	$-\frac{174\,763}{2657\,205}$	0	$\frac{524\,288}{7971\,615}$	0	0
233	28	−14	16	10	$-\frac{29}{71\,744\,535}$	$\frac{5068\,127}{23\,914\,845}$	0	$-\frac{15\,204\,352}{71\,744\,535}$	0	0
234	29	−19	21	9	$-\frac{6375\,262\,698\,416}{215\,233\,605}$	$\frac{1114\,160\,034\,963\,275\,408}{71\,744\,535}$	243	$-\frac{3342\,473\,729\,627\,127\,808}{215\,233\,605}$	−127 402 227	127 401 984
235	35	−13	3	15	$\frac{1}{885\,735}$	$-\frac{174\,763}{295\,245}$	0	$\frac{524\,288}{885\,735}$	0	0
236	36	−18	8	14	$-\frac{37}{7971\,615}$	$\frac{6466\,231}{2657\,205}$	0	$-\frac{19\,398\,656}{7971\,615}$	0	0
237	37	−23	13	13	$-\frac{19\,125\,788\,095\,241}{71\,744\,535}$	$\frac{3342\,480\,104\,888\,602\,883}{23\,914\,845}$	2187	$-\frac{10\,027\,421\,188\,877\,713\,408}{71\,744\,535}$	−1146 620 043	1146 617 856
238	43	−17	−5	19	$\frac{1}{98\,415}$	$-\frac{174\,763}{32\,805}$	0	$\frac{524\,288}{98\,415}$	0	0
239	44	−22	0	18	$-\frac{1}{19\,683}$	$\frac{174\,763}{6561}$	0	$-\frac{524\,288}{19\,683}$	0	0
240	45	−27	5	17	$-\frac{2125\,087\,566\,137}{885\,735}$	$\frac{371\,386\,678\,320\,800\,531}{295\,245}$	19 683	$-\frac{1114\,157\,909\,874\,835\,456}{885\,735}$	−10 319 580 387	10 319 560 704
241	51	−21	−13	23	$\frac{1}{10\,935}$	$-\frac{174\,763}{3645}$	0	$\frac{524\,288}{10\,935}$	0	0
242	52	−26	−8	22	$-\frac{53}{98\,415}$	$\frac{9262\,439}{32\,805}$	0	$-\frac{27\,787\,264}{98\,415}$	0	0
243	53	−31	−3	21	$-\frac{2125\,087\,566\,086}{98\,415}$	$\frac{371\,386\,678\,311\,887\,618}{32\,805}$	177 147	$-\frac{1114\,157\,909\,848\,096\,768}{98\,415}$	−92 876 223 483	92 876 046 336
244	59	−25	−21	27	$\frac{1}{1215}$	$-\frac{174\,763}{405}$	0	$\frac{524\,288}{1215}$	0	0
245	60	−30	−16	26	$-\frac{61}{10\,935}$	$\frac{10\,660\,543}{3645}$	0	$-\frac{31\,981\,568}{10\,935}$	0	0
246	61	−35	−11	25	$-\frac{19\,125\,788\,094\,494}{98\,415}$	$\frac{3342\,480\,104\,758\,054\,922}{32\,805}$	1594 323	$-\frac{10\,027\,421\,188\,486\,070\,272}{98\,415}$	−835 886 011 347	835 884 417 024
247	67	−29	−29	31	$\frac{1}{135}$	$-\frac{174\,763}{45}$	0	$\frac{524\,288}{135}$	0	0
248	68	−34	−24	30	$-\frac{23}{405}$	$\frac{4019\,549}{135}$	0	$-\frac{12\,058\,624}{405}$	0	0
249	69	−39	−19	29	$-\frac{6375\,262\,698\,176}{3645}$	$\frac{1114\,160\,034\,921\,332\,288}{1215}$	14 348 907	$-\frac{3342\,473\,729\,501\,298\,688}{3645}$	−7522 974 102 123	7522 959 753 216
250	75	−33	−37	35	$\frac{1}{15}$	$-\frac{174\,763}{5}$	0	$\frac{524\,288}{15}$	0	0
251	76	−38	−32	34	$-\frac{77}{135}$	$\frac{13\,456\,751}{45}$	0	$-\frac{40\,370\,176}{135}$	0	0
252	77	−43	−27	33	$-\frac{6375\,262\,698\,187}{405}$	$\frac{1114\,160\,034\,923\,254\,681}{135}$	129 140 163	$-\frac{3342\,473\,729\,507\,065\,856}{405}$	−67 706 766 919 107	67 706 637 778 944
253	84	−42	−40	38	$-\frac{17}{3}$	2970 971	0	$-\frac{8912\,896}{3}$	0	0
254	85	−47	−35	37	$-\frac{19\,125\,788\,093\,792}{135}$	$\frac{3342\,480\,104\,635\,371\,296}{45}$	1162 261 467	$-\frac{10\,027\,421\,188\,118\,020\,096}{135}$	−609 360 902 271 963	609 359 740 010 496
255	93	−51	−43	41	$-\frac{6375\,262\,697\,776}{5}$	$\frac{3342\,480\,104\,554\,281\,264}{5}$	10 460 353 203	$-\frac{3342\,473\,729\,291\,583\,488}{5}$	−5484 248 120 447 667	5484 237 660 094 464

256	−26	16	58	−8	$-\frac{1}{38 127 987 424 935}$	$\frac{174 763}{12 709 329 141 645}$	0	$-\frac{524 288}{38 127 987 424 935}$	0	0
257	−25	11	63	−9	$-\frac{2}{38 127 987 424 935}$	$\frac{349 526}{12 709 329 141 645}$	0	$-\frac{1048 576}{38 127 987 424 935}$	0	0
258	−24	6	68	−10	$\frac{708 362 522 017}{114 383 962 274 805}$	$-\frac{123 795 559 435 256 971}{38 127 987 424 935}$	$-\frac{1}{19 683}$	$\frac{371 385 969 943 248 896}{114 383 962 274 805}$	$\frac{174 763}{6561}$	$-\frac{524 288}{19 683}$
259	−18	12	50	−4	$-\frac{1}{4236 443 047 215}$	$\frac{174 763}{1412 147 682 405}$	0	$-\frac{524 288}{4236 443 047 215}$	0	0
260	−17	7	55	−5	$-\frac{2}{7625 597 484 987}$	$\frac{349 526}{2541 865 828 329}$	0	$-\frac{1048 576}{7625 597 484 987}$	0	0
261	−16	2	60	−6	$\frac{425 017 513 226}{7625 597 484 987}$	$-\frac{74 277 335 663 915 438}{2541 865 828 329}$	$-\frac{1}{2187}$	$\frac{222 831 581 974 233 088}{7625 597 484 987}$	$\frac{174 763}{729}$	$-\frac{524 288}{2187}$
262	−10	8	42	0	$-\frac{1}{470 715 894 135}$	$\frac{174 763}{156 905 298 045}$	0	$-\frac{524 288}{470 715 894 135}$	0	0
263	−9	3	47	−1	$-\frac{2}{4236 443 047 215}$	$\frac{349 526}{1412 147 682 405}$	0	$-\frac{1048 576}{4236 443 047 215}$	0	0
264	−8	−2	52	−2	$\frac{3825 157 618 942}{7625 597 484 987}$	$-\frac{668 496 020 959 160 746}{2541 865 828 329}$	$-\frac{1}{243}$	$\frac{2005 484 237 719 863 296}{7625 597 484 987}$	$\frac{174 763}{81}$	$-\frac{524 288}{243}$
265	−2	4	34	4	$-\frac{1}{52 301 766 015}$	$\frac{174 763}{17 433 922 005}$	0	$-\frac{524 288}{52 301 766 015}$	0	0
266	−1	−1	39	3	$\frac{2}{156 905 298 045}$	$-\frac{349 526}{52 301 766 015}$	0	$\frac{1048 576}{156 905 298 045}$	0	0
267	0	−6	44	2	$\frac{6375 262 698 107}{1412 147 682 405}$	$-\frac{1114 160 034 909 273 641}{470 715 894 135}$	$-\frac{1}{27}$	$\frac{3342 473 729 465 122 816}{1412 147 682 405}$	$\frac{174 763}{9}$	$-\frac{524 288}{27}$
268	6	0	26	8	$-\frac{1}{5811 307 335}$	$\frac{174 763}{1937 102 445}$	0	$-\frac{524 288}{5811 307 335}$	0	0
269	7	−5	31	7	$\frac{14}{52 301 766 015}$	$-\frac{2446 682}{17 433 922 005}$	0	$\frac{7340 032}{52 301 766 015}$	0	0
270	8	−10	36	6	$\frac{6375 262 698 211}{156 905 298 045}$	$-\frac{1114 160 034 927 448 993}{52 301 766 015}$	$-\frac{1}{3}$	$\frac{3342 473 729 519 648 768}{156 905 298 045}$	174 763	$-\frac{524 288}{3}$
271	14	−4	18	12	$-\frac{1}{645 700 815}$	$\frac{174 763}{215 233 605}$	0	$-\frac{524 288}{645 700 815}$	0	0
272	15	−9	23	11	$\frac{22}{5811 307 335}$	$-\frac{3844 786}{1937 102 445}$	0	$\frac{11 534 336}{5811 307 335}$	0	0
273	16	−14	28	10	$\frac{19 125 788 094 881}{52 301 766 015}$	$-\frac{3342 480 104 825 688 203}{17 433 922 005}$	−3	$\frac{10 027 421 188 688 969 728}{52 301 766 015}$	1572 867	−1572 864
274	22	−8	10	16	$-\frac{1}{71 744 535}$	$\frac{174 763}{23 914 845}$	0	$-\frac{524 288}{71 744 535}$	0	0
275	23	−13	15	15	$\frac{2}{43 046 721}$	$-\frac{349 526}{14 348 907}$	0	$\frac{1048 576}{43 046 721}$	0	0
276	24	−18	20	14	$\frac{1275 052 539 671}{387 420 489}$	$-\frac{222 832 006 990 522 973}{129 140 163}$	−27	$\frac{668 494 745 919 029 248}{387 420 489}$	14 155 803	−14 155 776
277	30	−12	2	20	$-\frac{1}{7971 615}$	$\frac{174 763}{2657 205}$	0	$-\frac{524 288}{7971 615}$	0	0
278	31	−17	7	19	$\frac{38}{71 744 535}$	$-\frac{6640 994}{23 914 845}$	0	$\frac{19 922 944}{71 744 535}$	0	0
279	32	−22	12	18	$\frac{1275 052 539 682}{43 046 721}$	$-\frac{222 832 006 992 445 366}{14 348 907}$	−243	$\frac{668 494 745 924 796 416}{43 046 721}$,	127 402 227	−127 401 984
280	38	−16	−6	24	$-\frac{1}{885 735}$	$\frac{174 763}{295 245}$	0	$-\frac{524 288}{885 735}$	0	0
281	39	−21	−1	23	$\frac{46}{7971 615}$	$-\frac{8039 098}{2657 205}$	0	$\frac{24 117 248}{7971 615}$	0	0
282	40	−26	4	22	$\frac{19 125 788 095 241}{71 744 535}$	$-\frac{3342 480 104 888 602 883}{23 914 845}$	−2187	$\frac{10 027 421 188 877 713 408}{71 744 535}$	1146 620 043	−1146 617 856
283	46	−20	−14	28	$-\frac{1}{98 415}$	$\frac{174 763}{32 805}$	0	$-\frac{524 288}{98 415}$	0	0
284	47	−25	−9	27	$\frac{2}{32 805}$	$-\frac{349 526}{10 935}$	0	$\frac{1048 576}{32 805}$	0	0
285	48	−30	−4	26	$\frac{2125 087 566 137}{885 735}$	$-\frac{371 386 678 320 800 531}{295 245}$	−19 683	$\frac{1114 157 909 874 835 456}{885 735}$	10 319 580 387	−10 319 560 704
286	54	−24	−22	32	$-\frac{1}{10 935}$	$\frac{174 763}{3645}$	0	$-\frac{524 288}{10 935}$	0	0
287	55	−29	−17	31	$\frac{62}{98 415}$	$-\frac{10 835 306}{32 805}$	0	$\frac{32 505 856}{98 415}$	0	0
288	56	−34	−12	30	$\frac{2125 087 566 086}{98 415}$	$-\frac{371 386 678 311 887 618}{32 805}$	−177 147	$\frac{1114 157 909 848 096 768}{98 415}$	92 876 223 483	−92 876 046 336
289	62	−28	−30	36	$-\frac{1}{1215}$	$\frac{174 763}{405}$	0	$-\frac{524 288}{1215}$	0	0
290	63	−33	−25	35	$\frac{14}{2187}$	$-\frac{2446 682}{729}$	0	$\frac{7340 032}{2187}$	0	0
291	64	−38	−20	34	$\frac{3825 157 619 005}{19 683}$	$-\frac{668 496 020 970 170 815}{6561}$	−1594 323	$\frac{2005 484 237 752 893 440}{19 683}$	835 886 011 347	−835 884 417 024
292	70	−32	−38	40	$-\frac{1}{135}$	$\frac{174 763}{45}$	0	$-\frac{524 288}{135}$	0	0
293	71	−37	−33	39	$\frac{26}{405}$	$-\frac{4543 838}{135}$	0	$\frac{13 631 488}{405}$	0	0
294	72	−42	−28	38	$\frac{1275 052 539 655}{729}$	$-\frac{222 832 006 987 726 765}{243}$	−14 348 907	$\frac{668 494 745 910 640 640}{729}$	7522 974 102 123	−7522 959 753 216
295	79	−41	−41	43	$\frac{86}{135}$	$-\frac{15 029 618}{45}$	0	$\frac{45 088 768}{135}$	0	0
296	80	−46	−36	42	$\frac{6375 262 698 187}{405}$	$-\frac{1114 160 034 923 254 681}{135}$	−129 140 163	$\frac{3342 473 729 507 065 856}{405}$	67 706 766 919 107	−67 706 637 778 944
297	88	−50	−44	46	$\frac{19 125 788 093 792}{135}$	$-\frac{3342 480 104 635 371 296}{45}$	−1162 261 467	$\frac{10 027 421 188 118 020 096}{135}$	609 360 902 271 963	−609 359 740 010 496
298	−23	13	49	1	$\frac{1}{38 127 987 424 935}$	$-\frac{174 763}{12 709 329 141 645}$	0	$\frac{524 288}{38 127 987 424 935}$	0	0
299	−22	8	54	0	$\frac{1}{38 127 987 424 935}$	$-\frac{174 763}{12 709 329 141 645}$	0	$\frac{524 288}{38 127 987 424 935}$	0	0
300	−21	3	59	−1	$-\frac{708 362 522 017}{114 383 962 274 805}$	$\frac{123 795 559 435 256 971}{38 127 987 424 935}$	$\frac{1}{19 683}$	$-\frac{371 385 969 943 248 896}{114 383 962 274 805}$	$-\frac{174 763}{6561}$	$\frac{524 288}{19 683}$
301	−15	9	41	5	$\frac{1}{4236 443 047 215}$	$-\frac{174 763}{1412 147 682 405}$	0	$\frac{524 288}{4236 443 047 215}$	0	0
302	−14	4	46	4	$\frac{1}{38 127 987 424 935}$	$-\frac{174 763}{12 709 329 141 645}$	0	$\frac{524 288}{38 127 987 424 935}$	0	0
303	−13	−1	51	3	$-\frac{425 017 513 226}{7625 597 484 987}$	$\frac{74 277 335 663 915 438}{2541 865 828 329}$	$\frac{1}{2187}$	$-\frac{222 831 581 974 233 088}{7625 597 484 987}$	$-\frac{174 763}{729}$	$\frac{524 288}{2187}$
304	−7	5	33	9	$\frac{1}{470 715 894 135}$	$-\frac{174 763}{156 905 298 045}$	0	$\frac{524 288}{470 715 894 135}$	0	0
305	−6	0	38	8	$-\frac{7}{4236 443 047 215}$	$\frac{1223 341}{1412 147 682 405}$	0	$-\frac{3670 016}{4236 443 047 215}$	0	0
306	−5	−5	43	7	$-\frac{19 125 788 094 368}{38 127 987 424 935}$	$\frac{3342 480 104 736 034 784}{12 709 329 141 645}$	$\frac{1}{243}$	$-\frac{10 027 421 188 420 009 984}{38 127 987 424 935}$	$-\frac{174 763}{81}$	$\frac{524 288}{243}$
307	1	1	25	13	$\frac{1}{52 301 766 015}$	$-\frac{174 763}{17 433 922 005}$	0	$\frac{524 288}{52 301 766 015}$	0	0
308	2	−4	30	12	$-\frac{1}{31 381 059 609}$	$\frac{174 763}{10 460 353 203}$	0	$-\frac{524 288}{31 381 059 609}$	0	0

309	3	−9	35	11	$-\frac{6375262698107}{1412147682405}$	$\frac{1114160034909273641}{470715894135}$	$\frac{1}{27}$	$-\frac{3342473729465122816}{1412147682405}$	$-\frac{174763}{9}$	$\frac{524288}{27}$
310	9	−3	17	17	$\frac{1}{5811307335}$	$-\frac{174763}{1937102445}$	0	$\frac{524288}{5811307335}$	0	0
311	10	−8	22	16	$-\frac{23}{52301766015}$	$\frac{4019549}{17433922005}$	0	$-\frac{12058624}{52301766015}$	0	0
312	11	−13	27	15	$-\frac{6375262698211}{156905298045}$	$\frac{1114160034927448993}{52301766015}$	$\frac{1}{3}$	$-\frac{3342473729519648768}{156905298045}$	−174 763	$\frac{524288}{3}$
313	17	−7	9	21	$\frac{1}{645700815}$	$-\frac{174763}{215233605}$	0	$\frac{524288}{645700815}$	0	0
314	18	−12	14	20	$-\frac{31}{5811307335}$	$\frac{5417653}{1937102445}$	0	$-\frac{16252928}{5811307335}$	0	0
315	19	−17	19	19	$-\frac{19125788094881}{52301766015}$	$\frac{3342480104825688203}{17433922005}$	3	$-\frac{10027421188688969728}{52301766015}$	−1572 867	1572 864
316	25	−11	1	25	$\frac{1}{71744535}$	$-\frac{174763}{23914845}$	0	$\frac{524288}{71744535}$	0	0
317	26	−16	6	24	$-\frac{13}{215233605}$	$\frac{2271919}{71744535}$	0	$-\frac{6815744}{215233605}$	0	0
318	27	−21	11	23	$-\frac{1275052539671}{387420489}$	$\frac{222832006990522973}{129140163}$	27	$-\frac{668494745919029248}{387420489}$	−14 155 803	14 155 776
319	33	−15	−7	29	$\frac{1}{7971615}$	$-\frac{174763}{2657205}$	0	$\frac{524288}{7971615}$	0	0
320	34	−20	−2	28	$-\frac{47}{71744535}$	$\frac{8213861}{23914845}$	0	$-\frac{24641536}{71744535}$	0	0
321	35	−25	3	27	$-\frac{6375262698416}{215233605}$	$\frac{1114160034963275408}{71744535}$	243	$-\frac{3342473729627127808}{215233605}$	−127 402 227	127 401 984
322	41	−19	−15	33	$\frac{1}{885735}$	$-\frac{174763}{295245}$	0	$\frac{524288}{885735}$	0	0
323	42	−24	−10	32	$-\frac{11}{1594323}$	$\frac{1922393}{531441}$	0	$-\frac{5767168}{1594323}$	0	0
324	43	−29	−5	31	$-\frac{19125788095241}{71744535}$	$\frac{3342480104888602883}{23914845}$	2187	$-\frac{10027421188877713408}{71744535}$	−1146 620 043	1146 617 856
325	49	−23	−23	37	$\frac{1}{98415}$	$-\frac{174763}{32805}$	0	$\frac{524288}{98415}$	0	0
326	50	−28	−18	36	$-\frac{7}{98415}$	$\frac{1223341}{32805}$	0	$-\frac{3670016}{98415}$	0	0
327	51	−33	−13	35	$-\frac{2125087566137}{885735}$	$\frac{371386678320800531}{295245}$	19 683	$-\frac{1114157909874835456}{885735}$	−10 319 580 387	10 319 560 704
328	57	−27	−31	41	$\frac{1}{10935}$	$-\frac{174763}{3645}$	0	$\frac{524288}{10935}$	0	0
329	58	−32	−26	40	$-\frac{71}{98415}$	$\frac{12408173}{32805}$	0	$-\frac{37224448}{98415}$	0	0
330	59	−37	−21	39	$-\frac{708362522017}{32805}$	$\frac{123795559435256971}{10935}$	177 147	$-\frac{371385969943248896}{32805}$	−92 876 223 483	92 876 046 336
331	65	−31	−39	45	$\frac{1}{1215}$	$-\frac{174763}{405}$	0	$\frac{524288}{1215}$	0	0
332	66	−36	−34	44	$-\frac{79}{10935}$	$\frac{13806277}{3645}$	0	$-\frac{41418752}{10935}$	0	0
333	67	−41	−29	43	$-\frac{3825157619005}{19683}$	$\frac{668496020970170815}{6561}$	1594 323	$-\frac{2005484237752893440}{19683}$	−835 886 011 347	835 884 417 024
334	74	−40	−42	48	$-\frac{29}{405}$	$\frac{5068127}{135}$	0	$-\frac{15204352}{405}$	0	0
335	75	−45	−37	47	$-\frac{6375262698176}{3645}$	$\frac{1114160034921332288}{1215}$	14 348 907	$-\frac{3342473729501298688}{3645}$	−7522 974 102 123	7522 959 753 216
336	83	−49	−45	51	$-\frac{6375262698187}{405}$	$\frac{1114160034923254681}{135}$	129 140 163	$-\frac{3342473729507065856}{405}$	−67 706 766 919 107	67 706 637 778 944
337	−20	10	40	10	$-\frac{1}{38127987424935}$	$\frac{174763}{12709329141645}$	0	$-\frac{524288}{38127987424935}$	0	0
338	−18	0	50	8	$\frac{708362522017}{114383962274805}$	$-\frac{123795559435256971}{38127987424935}$	$-\frac{1}{19683}$	$\frac{371385969943248896}{114383962274805}$	$\frac{174763}{6561}$	$-\frac{524288}{19683}$
339	−12	6	32	14	$-\frac{1}{4236443047215}$	$\frac{174763}{1412147682405}$	0	$-\frac{524288}{4236443047215}$	0	0
340	−11	1	37	13	$\frac{8}{38127987424935}$	$-\frac{1398104}{12709329141645}$	0	$\frac{4194304}{38127987424935}$	0	0
341	−10	−4	42	12	$\frac{708362522047}{12709329141645}$	$-\frac{123795559440499861}{4236443047215}$	$-\frac{1}{2187}$	$\frac{371385969958977536}{12709329141645}$	$\frac{174763}{729}$	$-\frac{524288}{2187}$
342	−4	2	24	18	$-\frac{1}{470715894135}$	$\frac{174763}{156905298045}$	0	$-\frac{524288}{470715894135}$	0	0
343	−3	−3	29	17	$\frac{16}{4236443047215}$	$-\frac{2796208}{1412147682405}$	0	$\frac{8388608}{4236443047215}$	0	0
344	−2	−8	34	16	$\frac{3825157618942}{7625597484987}$	$-\frac{668496020959160746}{2541865828329}$	$-\frac{1}{243}$	$\frac{2005484237719863296}{7625597484987}$	$\frac{174763}{81}$	$-\frac{524288}{243}$
345	4	−2	16	22	$-\frac{1}{52301766015}$	$\frac{174763}{17433922005}$	0	$-\frac{524288}{52301766015}$	0	0
346	5	−7	21	21	$\frac{8}{156905298045}$	$-\frac{1398104}{52301766015}$	0	$\frac{4194304}{156905298045}$	0	0
347	6	−12	26	20	$\frac{6375262698107}{1412147682405}$	$-\frac{1114160034909273641}{470715894135}$	$-\frac{1}{27}$	$\frac{3342473729465122816}{1412147682405}$	$\frac{174763}{9}$	$-\frac{524288}{27}$
348	12	−6	8	26	$-\frac{1}{5811307335}$	$\frac{174763}{1937102445}$	0	$-\frac{524288}{5811307335}$	0	0
349	13	−11	13	25	$\frac{32}{52301766015}$	$-\frac{5592416}{17433922005}$	0	$\frac{16777216}{52301766015}$	0	0
350	14	−16	18	24	$\frac{1275052539674}{31381059609}$	$-\frac{222832006991047262}{10460353203}$	$-\frac{1}{3}$	$\frac{668494745920602112}{31381059609}$	174 763	$-\frac{524288}{3}$
351	20	−10	0	30	$-\frac{1}{645700815}$	$\frac{174763}{215233605}$	0	$-\frac{524288}{645700815}$	0	0
352	21	−15	5	29	$\frac{8}{1162261467}$	$-\frac{1398104}{387420489}$	0	$\frac{4194304}{1162261467}$	0	0
353	22	−20	10	28	$\frac{19125788094881}{52301766015}$	$-\frac{3342480104825688203}{17433922005}$	−3	$\frac{10027421188688969728}{52301766015}$,	1572 867	−1572 864
354	28	−14	−8	34	$-\frac{1}{71744535}$	$\frac{174763}{23914845}$	0	$-\frac{524288}{71744535}$	0	0
355	29	−19	−3	33	$\frac{16}{215233605}$	$-\frac{2796208}{71744535}$	0	$\frac{8388608}{215233605}$	0	0
356	30	−24	2	32	$\frac{6375262698418}{1937102445}$	$-\frac{1114160034963624934}{645700815}$	−27	$\frac{3342473729628176384}{1937102445}$	14 155 803	−14 155 776
357	36	−18	−16	38	$-\frac{1}{7971615}$	$\frac{174763}{2657205}$	0	$-\frac{524288}{7971615}$	0	0
358	37	−23	−11	37	$\frac{56}{71744535}$	$-\frac{9786728}{23914845}$	0	$\frac{29360128}{71744535}$	0	0
359	38	−28	−6	36	$\frac{1275052539682}{43046721}$	$-\frac{222832006992445366}{14348907}$	−243	$\frac{668494745924796416}{43046721}$	127 402 227	−127 401 984
360	44	−22	−24	42	$-\frac{1}{885735}$	$\frac{174763}{295245}$	0	$-\frac{524288}{885735}$	0	0
361	45	−27	−19	41	$\frac{64}{7971615}$	$-\frac{11184832}{2657205}$	0	$\frac{33554432}{7971615}$	0	0

362	46	−32	−14	40	$\frac{19\,125\,788\,095\,241}{71\,744\,535}$	$-\frac{3342\,480\,104\,888\,602\,883}{23\,914\,845}$	−2187	$\frac{10\,027\,421\,188\,877\,713\,408}{71\,744\,535}$	1146 620 043	−1146 617 856
363	52	−26	−32	46	$-\frac{1}{98\,415}$	$\frac{174\,763}{32\,805}$	0	$-\frac{524\,288}{98\,415}$	0	0
364	53	−31	−27	45	$\frac{8}{98\,415}$	$-\frac{1398\,104}{32\,805}$	0	$\frac{4194\,304}{98\,415}$	0	0
365	54	−36	−22	44	$\frac{425\,017\,513\,222}{177\,147}$	$-\frac{74\,277\,335\,663\,216\,386}{59\,049}$	−19 683	$\frac{222\,831\,581\,972\,135\,936}{177\,147}$	10 319 580 387	−10 319 560 704
366	60	−30	−40	50	$-\frac{1}{10\,935}$	$\frac{174\,763}{3645}$	0	$-\frac{524\,288}{10\,935}$	0	0
367	61	−35	−35	49	$\frac{16}{19\,683}$	$-\frac{2796\,208}{6561}$	0	$\frac{8388\,608}{19\,683}$	0	0
368	62	−40	−30	48	$\frac{2125\,087\,566\,112}{98\,415}$	$-\frac{371\,386\,678\,316\,431\,456}{32\,805}$	−177 147	$\frac{1114\,157\,909\,861\,728\,256}{98\,415}$	92 876 223 483	−92 876 046 336
369	69	−39	−43	53	$\frac{88}{10\,935}$	$-\frac{15\,379\,144}{3645}$	0	$\frac{46\,137\,344}{10\,935}$	0	0
370	70	−44	−38	52	$\frac{19\,125\,788\,094\,494}{98\,415}$	$-\frac{3342\,480\,104\,758\,054\,922}{32\,805}$	−1594 323	$\frac{10\,027\,421\,188\,486\,070\,272}{98\,415}$	835 886 011 347	−835 884 417 024
371	78	−48	−46	56	$\frac{1275\,052\,539\,655}{729}$	$-\frac{222\,832\,006\,987\,726\,765}{243}$	−14 348 907	$\frac{668\,494\,745\,910\,640\,640}{729}$	7522 974 102 123	−7522 959 753 216
372	−17	7	31	19	$\frac{1}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{12\,709\,329\,141\,645}$	0	$\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
373	−16	2	36	18	$-\frac{1}{38\,127\,987\,424\,935}$	$\frac{174\,763}{12\,709\,329\,141\,645}$	0	$-\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
374	−15	−3	41	17	$-\frac{708\,362\,522\,017}{114\,383\,962\,274\,805}$	$\frac{123\,795\,559\,435\,256\,971}{38\,127\,987\,424\,935}$	$\frac{1}{19\,683}$	$-\frac{371\,385\,969\,943\,248\,896}{114\,383\,962\,274\,805}$	$-\frac{174\,763}{6561}$	$\frac{524\,288}{19\,683}$
375	−9	3	23	23	$\frac{1}{4236\,443\,047\,215}$	$-\frac{174\,763}{1412\,147\,682\,405}$	0	$\frac{524\,288}{4236\,443\,047\,215}$	0	0
376	−8	−2	28	22	$-\frac{17}{38\,127\,987\,424\,935}$	$\frac{2970\,971}{12\,709\,329\,141\,645}$,	0	$-\frac{8912\,896}{38\,127\,987\,424\,935}$	0	0
377	−7	−7	33	21	$-\frac{2125\,087\,566\,046}{38\,127\,987\,424\,935}$	$\frac{371\,386\,678\,304\,897\,098}{12\,709\,329\,141\,645}$	$\frac{1}{2187}$	$-\frac{1114\,157\,909\,827\,125\,248}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{729}$	$\frac{524\,288}{2187}$
378	−1	−1	15	27	$\frac{1}{470\,715\,894\,135}$	$-\frac{174\,763}{156\,905\,298\,045}$	0	$\frac{524\,288}{470\,715\,894\,135}$	0	0
379	0	−6	20	26	$-\frac{5}{847\,288\,609\,443}$	$\frac{873\,815}{282\,429\,536\,481}$	0	$-\frac{2621\,440}{847\,288\,609\,443}$	0	0
380	1	−11	25	25	$-\frac{19\,125\,788\,094\,368}{38\,127\,987\,424\,935}$	$\frac{3342\,480\,104\,736\,034\,784}{12\,709\,329\,141\,645}$	$\frac{1}{243}$	$-\frac{10\,027\,421\,188\,420\,009\,984}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{81}$	$\frac{524\,288}{243}$
381	7	−5	7	31	$\frac{1}{52\,301\,766\,015}$	$-\frac{174\,763}{17\,433\,922\,005}$	0	$\frac{524\,288}{52\,301\,766\,015}$	0	0
382	8	−10	12	30	$-\frac{11}{156\,905\,298\,045}$	$\frac{1922\,393}{52\,301\,766\,015}$	0	$-\frac{5767\,168}{156\,905\,298\,045}$	0	0
383	9	−15	17	29	$-\frac{6375\,262\,698\,107}{1412\,147\,682\,405}$	$\frac{1114\,160\,034\,909\,273\,641}{470\,715\,894\,135}$	$\frac{1}{27}$	$-\frac{3342\,473\,729\,465\,122\,816}{1412\,147\,682\,405}$	$-\frac{174\,763}{9}$	$\frac{524\,288}{27}$
384	15	−9	−1	35	$\frac{1}{5811\,307\,335}$	$-\frac{174\,763}{1937\,102\,445}$	0	$\frac{524\,288}{5811\,307\,335}$	0	0
385	16	−14	4	34	$-\frac{41}{52\,301\,766\,015}$	$\frac{7165\,283}{17\,433\,922\,005}$	0	$-\frac{21\,495\,808}{52\,301\,766\,015}$	0	0
386	17	−19	9	33	$-\frac{6375\,262\,698\,211}{156\,905\,298\,045}$	$\frac{1114\,160\,034\,927\,448\,993}{52\,301\,766\,015}$	$\frac{1}{3}$	$-\frac{3342\,473\,729\,519\,648\,768}{156\,905\,298\,045}$	−174 763	$\frac{524\,288}{3}$
387	23	−13	−9	39	$\frac{1}{645\,700\,815}$	$-\frac{174\,763}{215\,233\,605}$	0	$\frac{524\,288}{645\,700\,815}$	0	0
388	24	−18	−4	38	$-\frac{49}{5811\,307\,335}$	$\frac{8563\,387}{1937\,102\,445}$	0	$-\frac{25\,690\,112}{5811\,307\,335}$	0	0
389	25	−23	1	37	$-\frac{19\,125\,788\,094\,881}{52\,301\,766\,015}$	$\frac{3342\,480\,104\,825\,688\,203}{17\,433\,922\,005}$	3	$-\frac{10\,027\,421\,188\,688\,969\,728}{52\,301\,766\,015}$	−1572 867	1572 864
390	31	−17	−17	43	$\frac{1}{71\,744\,535}$	$-\frac{174\,763}{23\,914\,845}$	0	$\frac{524\,288}{71\,744\,535}$	0	0
391	32	−22	−12	42	$-\frac{19}{215\,233\,605}$	$\frac{3320\,497}{71\,744\,535}$	0	$-\frac{9961\,472}{215\,233\,605}$	0	0
392	33	−27	−7	41	$-\frac{6375\,262\,698\,418}{1937\,102\,445}$	$\frac{1114\,160\,034\,963\,624\,934}{645\,700\,815}$	27	$-\frac{3342\,473\,729\,628\,176\,384}{1937\,102\,445}$	−14 155 803	14 155 776
393	39	−21	−25	47	$\frac{1}{7971\,615}$	$-\frac{174\,763}{2657\,205}$	0	$\frac{524\,288}{7971\,615}$	0	0
394	40	−26	−20	46	$-\frac{13}{14\,348\,907}$	$\frac{2271\,919}{4782\,969}$	0	$-\frac{6815\,744}{14\,348\,907}$	0	0
395	41	−31	−15	45	$-\frac{6375\,262\,698\,416}{215\,233\,605}$	$\frac{1114\,160\,034\,963\,275\,408}{71\,744\,535}$	243	$-\frac{3342\,473\,729\,627\,127\,808}{215\,233\,605}$	−127 402 227	127 401 984
396	47	−25	−33	51	$\frac{1}{885\,735}$	$-\frac{174\,763}{295\,245}$	0	$\frac{524\,288}{885\,735}$	0	0
397	48	−30	−28	50	$-\frac{73}{7971\,615}$	$\frac{12\,757\,699}{2657\,205}$	0	$-\frac{38\,273\,024}{7971\,615}$	0	0
398	49	−35	−23	49	$-\frac{19\,125\,788\,095\,241}{71\,744\,535}$	$\frac{3342\,480\,104\,888\,602\,883}{23\,914\,845}$	2187	$-\frac{10\,027\,421\,188\,877\,713\,408}{71\,744\,535}$	−1146 620 043	1146 617 856
399	55	−29	−41	55	$\frac{1}{98\,415}$	$-\frac{174\,763}{32\,805}$	0	$\frac{524\,288}{98\,415}$	0	0
400	56	−34	−36	54	$-\frac{1}{10\,935}$	$\frac{174\,763}{3645}$	0	$-\frac{524\,288}{10\,935}$	0	0
401	57	−39	−31	53	$-\frac{2125\,087\,566\,137}{885\,735}$	$\frac{371\,386\,678\,320\,800\,531}{295\,245}$	19 683	$-\frac{1114\,157\,909\,874\,835\,456}{885\,735}$	−10 319 580 387	10 319 560 704
402	64	−38	−44	58	$-\frac{89}{98\,415}$	$\frac{15\,553\,907}{32\,805}$	0	$-\frac{46\,661\,632}{98\,415}$	0	0
403	65	−43	−39	57	$-\frac{2125\,087\,566\,112}{98\,415}$	$\frac{371\,386\,678\,316\,431\,456}{32\,805}$	177 147	$-\frac{1114\,157\,909\,861\,728\,256}{98\,415}$	−92 876 223 483	92 876 046 336
404	73	−47	−47	61	$-\frac{19\,125\,788\,094\,494}{98\,415}$	$\frac{3342\,480\,104\,758\,054\,922}{32\,805}$	1594 323	$-\frac{10\,027\,421\,188\,486\,070\,272}{98\,415}$	−835 886 011 347	835 884 417 024
405	−14	4	22	28	$-\frac{1}{38\,127\,987\,424\,935}$	$\frac{174\,763}{12\,709\,329\,141\,645}$	0	$-\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
406	−13	−1	27	27	$\frac{2}{38\,127\,987\,424\,935}$	$-\frac{349\,526}{12\,709\,329\,141\,645}$	0	$\frac{1048\,576}{38\,127\,987\,424\,935}$	0	0
407	−12	−6	32	26	$\frac{708\,362\,522\,017}{114\,383\,962\,274\,805}$	$-\frac{123\,795\,559\,435\,256\,971}{38\,127\,987\,424\,935}$	$-\frac{1}{19\,683}$	$\frac{371\,385\,969\,943\,248\,896}{114\,383\,962\,274\,805}$	$\frac{174\,763}{6561}$	$-\frac{524\,288}{19\,683}$
408	−6	0	14	32	$-\frac{1}{4236\,443\,047\,215}$	$\frac{174\,763}{1412\,147\,682\,405}$	0	$-\frac{524\,288}{4236\,443\,047\,215}$	0	0
409	−5	−5	19	31	$\frac{26}{38\,127\,987\,424\,935}$	$-\frac{4543\,838}{12\,709\,329\,141\,645}$	0	$\frac{13\,631\,488}{38\,127\,987\,424\,935}$	0	0
410	−4	−10	24	30	$\frac{2125\,087\,566\,046}{38\,127\,987\,424\,935}$	$-\frac{371\,386\,678\,304\,897\,098}{12\,709\,329\,141\,645}$	$-\frac{1}{2187}$	$\frac{1114\,157\,909\,827\,125\,248}{38\,127\,987\,424\,935}$	$\frac{174\,763}{729}$	$-\frac{524\,288}{2187}$
411	2	−4	6	36	$-\frac{1}{470\,715\,894\,135}$	$\frac{174\,763}{156\,905\,298\,045}$	0	$-\frac{524\,288}{470\,715\,894\,135}$	0	0
412	3	−9	11	35	$\frac{34}{4236\,443\,047\,215}$	$-\frac{5941\,942}{1412\,147\,682\,405}$	0	$\frac{17\,825\,792}{4236\,443\,047\,215}$	0	0
413	4	−14	16	34	$\frac{19\,125\,788\,094\,368}{38\,127\,987\,424\,935}$	$-\frac{3342\,480\,104\,736\,034\,784}{12\,709\,329\,141\,645}$	$-\frac{1}{243}$	$\frac{10\,027\,421\,188\,420\,009\,984}{38\,127\,987\,424\,935}$	$\frac{174\,763}{81}$	$-\frac{524\,288}{243}$
414	10	−8	−2	40	$-\frac{1}{52\,301\,766\,015}$	$\frac{174\,763}{17\,433\,922\,005}$	0	$-\frac{524\,288}{52\,301\,766\,015}$	0	0

415	11	−13	3	39	$\frac{14}{156 905 298 045}$	$-\frac{2446 682}{52 301 766 015}$	0	$\frac{7340 032}{156 905 298 045}$	0	0
416	12	−18	8	38	$\frac{6375 262 698 107}{1412 147 682 405}$	$-\frac{1114 160 034 909 273 641}{470 715 894 135}$	$-\frac{1}{27}$	$\frac{3342 473 729 465 122 816}{1412 147 682 405}$	$\frac{174 763}{9}$	$-\frac{524 288}{27}$
417	18	−12	−10	44	$-\frac{1}{5811 307 335}$	$\frac{174 763}{1937 102 445}$	0	$-\frac{524 288}{5811 307 335}$	0	0
418	19	−17	−5	43	$\frac{10}{10 460 353 203}$	$-\frac{1747 630}{3486 784 401}$	0	$\frac{5242 880}{10 460 353 203}$	0	0
419	20	−22	0	42	$\frac{6375 262 698 211}{156 905 298 045}$	$-\frac{1114 160 034 927 448 993}{52 301 766 015}$	$-\frac{1}{3}$	$\frac{3342 473 729 519 648 768}{156 905 298 045}$	174 763	$-\frac{524 288}{3}$
420	26	−16	−18	48	$-\frac{1}{645 700 815}$	$\frac{174 763}{215 233 605}$	0	$-\frac{524 288}{645 700 815}$	0	0
421	27	−21	−13	47	$\frac{58}{5811 307 335}$	$-\frac{10 136 254}{1937 102 445}$	0	$\frac{30 408 704}{5811 307 335}$	0	0
422	28	−26	−8	46	$\frac{19 125 788 094 881}{52 301 766 015}$	$-\frac{3342 480 104 825 688 203}{17 433 922 005}$	−3	$\frac{10 027 421 188 688 969 728}{52 301 766 015}$,	1572 867	−1572 864
423	34	−20	−26	52	$-\frac{1}{71 744 535}$	$\frac{174 763}{23 914 845}$	0	$-\frac{524 288}{71 744 535}$	0	0
424	35	−25	−21	51	$\frac{22}{215 233 605}$	$-\frac{3844 786}{71 744 535}$	0	$\frac{11 534 336}{215 233 605}$	0	0
425	36	−30	−16	50	$\frac{6375 262 698 418}{1937 102 445}$	$-\frac{1114 160 034 963 624 934}{645 700 815}$	−27	$\frac{3342 473 729 628 176 384}{1937 102 445}$	14 155 803	−14 155 776
426	42	−24	−34	56	$-\frac{1}{7971 615}$	$\frac{174 763}{2657 205}$	0	$-\frac{524 288}{7971 615}$	0	0
427	43	−29	−29	55	$\frac{74}{71 744 535}$	$-\frac{12 932 462}{23 914 845}$	0	$\frac{38 797 312}{71 744 535}$	0	0
428	44	−34	−24	54	$\frac{6375 262 698 416}{215 233 605}$	$-\frac{1114 160 034 963 275 408}{71 744 535}$	−243	$\frac{3342 473 729 627 127 808}{215 233 605}$	127 402 227	−127 401 984
429	50	−28	−42	60	$-\frac{1}{885 735}$	$\frac{174 763}{295 245}$	0	$-\frac{524 288}{885 735}$	0	0
430	51	−33	−37	59	$\frac{82}{7971 615}$	$-\frac{14 330 566}{2657 205}$	0	$\frac{42 991 616}{7971 615}$	0	0
431	52	−38	−32	58	$\frac{19 125 788 095 241}{71 744 535}$	$-\frac{3342 480 104 888 602 883}{23 914 845}$	−2187	$\frac{10 027 421 188 877 713 408}{71 744 535}$	1146 620 043	−1146 617 856
432	59	−37	−45	63	$\frac{2}{19 683}$	$-\frac{349 526}{6561}$	0	$\frac{1048 576}{19 683}$	0	0
433	60	−42	−40	62	$\frac{2125 087 566 137}{885 735}$	$-\frac{371 386 678 320 800 531}{295 245}$	−19 683	$\frac{1114 157 909 874 835 456}{885 735}$	10 319 580 387	−10 319 560 704
434	68	−46	−48	66	$\frac{78 706 946 876}{3645}$	$-\frac{13 755 062 156 890 388}{1215}$	−177 147	$\frac{41 265 107 763 724 288}{3645}$	92 876 223 483	−92 876 046 336
435	−11	1	13	37	$\frac{1}{38 127 987 424 935}$	$-\frac{174 763}{12 709 329 141 645}$	0	$\frac{524 288}{38 127 987 424 935}$	0	0
436	−10	−4	18	36	$-\frac{1}{12 709 329 141 645}$	$\frac{174 763}{4236 443 047 215}$	0	$-\frac{524 288}{12 709 329 141 645}$	0	0
437	−9	−9	23	35	$-\frac{708 362 522 017}{114 383 962 274 805}$	$\frac{123 795 559 435 256 971}{38 127 987 424 935}$	$\frac{1}{19 683}$	$-\frac{371 385 969 943 248 896}{114 383 962 274 805}$	$-\frac{174 763}{6561}$	$\frac{524 288}{19 683}$
438	−3	−3	5	41	$\frac{1}{4236 443 047 215}$	$-\frac{174 763}{1412 147 682 405}$	0	$\frac{524 288}{4236 443 047 215}$	0	0
439	−2	−8	10	40	$-\frac{7}{7625 597 484 987}$	$\frac{1223 341}{2541 865 828 329}$	0	$-\frac{3670 016}{7625 597 484 987}$	0	0
440	−1	−13	15	39	$-\frac{141 672 504 400}{2541 865 828 329}$	$\frac{24 759 111 886 457 200}{847 288 609 443}$	$\frac{1}{2187}$	$-\frac{74 277 193 986 867 200}{2541 865 828 329}$	$-\frac{174 763}{729}$	$\frac{524 288}{2187}$
441	5	−7	−3	45	$\frac{1}{470 715 894 135}$	$-\frac{174 763}{156 905 298 045}$	0	$\frac{524 288}{470 715 894 135}$	0	0
442	6	−12	2	44	$-\frac{43}{4236 443 047 215}$	$\frac{7514 809}{1412 147 682 405}$	0	$-\frac{22 544 384}{4236 443 047 215}$	0	0
443	7	−17	7	43	$-\frac{3825 157 618 942}{7625 597 484 987}$	$\frac{668 496 020 959 160 746}{2541 865 828 329}$	$\frac{1}{243}$	$-\frac{2005 484 237 719 863 296}{7625 597 484 987}$	$-\frac{174 763}{81}$	$\frac{524 288}{243}$
444	13	−11	−11	49	$\frac{1}{52 301 766 015}$	$-\frac{174 763}{17 433 922 005}$	0	$\frac{524 288}{52 301 766 015}$	0	0
445	14	−16	−6	48	$-\frac{17}{156 905 298 045}$	$\frac{2970 971}{52 301 766 015}$	0	$-\frac{8912 896}{156 905 298 045}$	0	0
446	15	−21	−1	47	$-\frac{6375 262 698 107}{1412 147 682 405}$	$\frac{1114 160 034 909 273 641}{470 715 894 135}$	$\frac{1}{27}$	$-\frac{3342 473 729 465 122 816}{1412 147 682 405}$	$-\frac{174 763}{9}$	$\frac{524 288}{27}$
447	21	−15	−19	53	$\frac{1}{5811 307 335}$	$-\frac{174 763}{1937 102 445}$	0	$\frac{524 288}{5811 307 335}$	0	0
448	22	−20	−14	52	$-\frac{59}{52 301 766 015}$	$\frac{10 311 017}{17 433 922 005}$	0	$-\frac{30 932 992}{52 301 766 015}$	0	0
449	23	−25	−9	51	$-\frac{6375 262 698 211}{156 905 298 045}$	$\frac{1114 160 034 927 448 993}{52 301 766 015}$	$\frac{1}{3}$	$-\frac{3342 473 729 519 648 768}{156 905 298 045}$	−174 763	$\frac{524 288}{3}$
450	29	−19	−27	57	$\frac{1}{645 700 815}$	$-\frac{174 763}{215 233 605}$	0	$\frac{524 288}{645 700 815}$	0	0
451	30	−24	−22	56	$-\frac{67}{5811 307 335}$	$\frac{11 709 121}{1937 102 445}$	0	$-\frac{35 127 296}{5811 307 335}$	0	0
452	31	−29	−17	55	$-\frac{19 125 788 094 881}{52 301 766 015}$	$\frac{3342 480 104 825 688 203}{17 433 922 005}$	3	$-\frac{10 027 421 188 688 969 728}{52 301 766 015}$	−1572 867	1572 864
453	37	−23	−35	61	$\frac{1}{71 744 535}$	$-\frac{174 763}{23 914 845}$	0	$\frac{524 288}{71 744 535}$	0	0
454	38	−28	−30	60	$-\frac{5}{43 046 721}$	$\frac{873 815}{14 348 907}$	0	$-\frac{2621 440}{43 046 721}$	0	0
455	39	−33	−25	59	$-\frac{1275 052 539 671}{387 420 489}$	$\frac{222 832 006 990 522 973}{129 140 163}$	27	$-\frac{668 494 745 919 029 248}{387 420 489}$	−14 155 803	14 155 776
456	45	−27	−43	65	$\frac{1}{7971 615}$	$-\frac{174 763}{2657 205}$	0	$\frac{524 288}{7971 615}$	0	0
457	46	−32	−38	64	$-\frac{83}{71 744 535}$	$\frac{14 505 329}{23 914 845}$	0	$-\frac{43 515 904}{71 744 535}$	0	0
458	47	−37	−33	63	$-\frac{1275 052 539 682}{43 046 721}$	$\frac{222 832 006 992 445 366}{14 348 907}$	243	$-\frac{668 494 745 924 796 416}{43 046 721}$	−127 402 227	127 401 984
459	54	−36	−46	68	$-\frac{91}{7971 615}$	$\frac{15 903 433}{2657 205}$	0	$-\frac{47 710 208}{7971 615}$	0	0
460	55	−41	−41	67	$-\frac{19 125 788 095 241}{71 744 535}$	$\frac{3342 480 104 888 602 883}{23 914 845}$	2187	$-\frac{10 027 421 188 877 713 408}{71 744 535}$	−1146 620 043	1146 617 856
461	63	−45	−49	71	$-\frac{2125 087 566 137}{885 735}$	$\frac{371 386 678 320 800 531}{295 245}$	19 683	$-\frac{1114 157 909 874 835 456}{885 735}$	−10 319 580 387	10 319 560 704
462	−8	−2	4	46	$-\frac{1}{38 127 987 424 935}$	$\frac{174 763}{12 709 329 141 645}$	0	$-\frac{524 288}{38 127 987 424 935}$	0	0
463	−7	−7	9	45	$\frac{4}{38 127 987 424 935}$	$-\frac{699 052}{12 709 329 141 645}$	0	$\frac{2097 152}{38 127 987 424 935}$	0	0
464	−6	−12	14	44	$\frac{708 362 522 017}{114 383 962 274 805}$	$-\frac{123 795 559 435 256 971}{38 127 987 424 935}$	$-\frac{1}{19 683}$	$\frac{371 385 969 943 248 896}{114 383 962 274 805}$	$\frac{174 763}{6561}$	$-\frac{524 288}{19 683}$
465	0	−6	−4	50	$-\frac{1}{4236 443 047 215}$	$\frac{174 763}{1412 147 682 405}$	0	$-\frac{524 288}{4236 443 047 215}$	0	0
466	1	−11	1	49	$\frac{44}{38 127 987 424 935}$	$-\frac{7689 572}{12 709 329 141 645}$	0	$\frac{23 068 672}{38 127 987 424 935}$	0	0
467	2	−16	6	48	$\frac{425 017 513 226}{7625 597 484 987}$	$-\frac{74 277 335 663 915 438}{2541 865 828 329}$	$-\frac{1}{2187}$	$\frac{222 831 581 974 233 088}{7625 597 484 987}$	$\frac{174 763}{729}$	$-\frac{524 288}{2187}$

468	8	−10	−12	54	$-\frac{1}{470\,715\,894\,135}$	$\frac{174\,763}{156\,905\,298\,045}$	0	$-\frac{524\,288}{470\,715\,894\,135}$	0	0
469	9	−15	−7	53	$\frac{52}{4236\,443\,047\,215}$	$-\frac{9087\,676}{1412\,147\,682\,405}$	0	$\frac{27\,262\,976}{4236\,443\,047\,215}$	0	0
470	10	−20	−2	52	$\frac{19\,125\,788\,094\,368}{38\,127\,987\,424\,935}$	$-\frac{3342\,480\,104\,736\,034\,784}{12\,709\,329\,141\,645}$	$-\frac{1}{243}$	$\frac{10\,027\,421\,188\,420\,009\,984}{38\,127\,987\,424\,935}$	$\frac{174\,763}{81}$	$-\frac{524\,288}{243}$
471	16	−14	−20	58	$-\frac{1}{52\,301\,766\,015}$	$\frac{174\,763}{17\,433\,922\,005}$	0	$-\frac{524\,288}{52\,301\,766\,015}$	0	0
472	17	−19	−15	57	$\frac{4}{31\,381\,059\,609}$	$-\frac{699\,052}{10\,460\,353\,203}$	0	$\frac{2097\,152}{31\,381\,059\,609}$	0	0
473	18	−24	−10	56	$\frac{6375\,262\,698\,107}{1412\,147\,682\,405}$	$-\frac{1114\,160\,034\,909\,273\,641}{470\,715\,894\,135}$	$-\frac{1}{27}$	$\frac{3342\,473\,729\,465\,122\,816}{1412\,147\,682\,405}$	$\frac{174\,763}{9}$	$-\frac{524\,288}{27}$
474	24	−18	−28	62	$-\frac{1}{5811\,307\,335}$	$\frac{174\,763}{1937\,102\,445}$	0	$-\frac{524\,288}{5811\,307\,335}$	0	0
475	25	−23	−23	61	$\frac{68}{52\,301\,766\,015}$	$-\frac{11\,883\,884}{17\,433\,922\,005}$	0	$\frac{35\,651\,584}{52\,301\,766\,015}$	0	0
476	26	−28	−18	60	$\frac{6375\,262\,698\,211}{156\,905\,298\,045}$	$-\frac{1114\,160\,034\,927\,448\,993}{52\,301\,766\,015}$	$-\frac{1}{3}$	$\frac{3342\,473\,729\,519\,648\,768}{156\,905\,298\,045}$	174 763	$-\frac{524\,288}{3}$
477	32	−22	−36	66	$-\frac{1}{645\,700\,815}$	$\frac{174\,763}{215\,233\,605}$	0	$-\frac{524\,288}{645\,700\,815}$	0	0
478	33	−27	−31	65	$\frac{76}{5811\,307\,335}$	$-\frac{13\,281\,988}{1937\,102\,445}$	0	$\frac{39\,845\,888}{5811\,307\,335}$	0	0
479	34	−32	−26	64	$\frac{19\,125\,788\,094\,881}{52\,301\,766\,015}$	$-\frac{3342\,480\,104\,825\,688\,203}{17\,433\,922\,005}$	−3	$\frac{10\,027\,421\,188\,688\,969\,728}{52\,301\,766\,015}$,	1572 867	−1572 864
480	40	−26	−44	70	$-\frac{1}{71\,744\,535}$	$\frac{174\,763}{23\,914\,845}$	0	$-\frac{524\,288}{71\,744\,535}$	0	0
481	41	−31	−39	69	$\frac{28}{215\,233\,605}$	$-\frac{4893\,364}{71\,744\,535}$	0	$\frac{14\,680\,064}{215\,233\,605}$	0	0
482	42	−36	−34	68	$\frac{1275\,052\,539\,671}{387\,420\,489}$	$-\frac{222\,832\,006\,990\,522\,973}{129\,140\,163}$	−27	$\frac{668\,494\,745\,919\,029\,248}{387\,420\,489}$	14 155 803	−14 155 776
483	49	−35	−47	73	$\frac{92}{71\,744\,535}$	$-\frac{16\,078\,196}{23\,914\,845}$	0	$\frac{48\,234\,496}{71\,744\,535}$	0	0
484	50	−40	−42	73	$\frac{6375\,262\,698\,416}{215\,233\,605}$	$-\frac{1114\,160\,034\,963\,275\,408}{71\,744\,535}$	−243	$\frac{3342\,473\,729\,627\,127\,808}{215\,233\,605}$	127 402 227	−127 401 984
485	58	−44	−50	76	$\frac{19\,125\,788\,095\,241}{71\,744\,535}$	$-\frac{3342\,480\,104\,888\,602\,883}{23\,914\,845}$	−2187	$\frac{10\,027\,421\,188\,877\,713\,408}{71\,744\,535}$	1146 620 043	−1146 617 856
486	−5	−5	−5	55	$\frac{1}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{12\,709\,329\,141\,645}$	0	$\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
487	−4	−10	0	54	$-\frac{1}{7625\,597\,484\,987}$	$\frac{174\,763}{2541\,865\,828\,329}$	0	$-\frac{524\,288}{7625\,597\,484\,987}$	0	0
488	−3	−15	5	53	$-\frac{708\,362\,522\,017}{114\,383\,962\,274\,805}$	$\frac{123\,795\,559\,435\,256\,971}{38\,127\,987\,424\,935}$	$\frac{1}{19\,683}$	$-\frac{371\,385\,969\,943\,248\,896}{114\,383\,962\,274\,805}$	$-\frac{174\,763}{6561}$	$\frac{524\,288}{19\,683}$
489	3	−9	−13	59	$\frac{1}{4236\,443\,047\,215}$	$-\frac{174\,763}{1412\,147\,682\,405}$	0	$\frac{524\,288}{4236\,443\,047\,215}$	0	0
490	4	−14	−8	58	$-\frac{53}{38\,127\,987\,424\,935}$	$\frac{9262\,439}{12\,709\,329\,141\,645}$	0	$-\frac{27\,787\,264}{38\,127\,987\,424\,935}$	0	0
491	5	−19	−3	57	$-\frac{2125\,087\,566\,046}{38\,127\,987\,424\,935}$	$\frac{371\,386\,678\,304\,897\,098}{12\,709\,329\,141\,645}$	$\frac{1}{2187}$	$-\frac{1114\,157\,909\,827\,125\,248}{38\,127\,987\,424\,935}$	$-\frac{174\,763}{729}$	$\frac{524\,288}{2187}$
492	11	−13	−21	63	$\frac{1}{470\,715\,894\,135}$	$-\frac{174\,763}{156\,905\,298\,045}$	0	$\frac{524\,288}{470\,715\,894\,135}$	0	0
493	12	−18	−16	62	$-\frac{61}{4236\,443\,047\,215}$	$\frac{10\,660\,543}{1412\,147\,682\,405}$	0	$-\frac{31\,981\,568}{4236\,443\,047\,215}$	0	0
494	13	−23	−11	61	$-\frac{3825\,157\,618\,942}{7625\,597\,484\,987}$	$\frac{668\,496\,020\,959\,160\,746}{2541\,865\,828\,329}$	$\frac{1}{243}$	$-\frac{2005\,484\,237\,719\,863\,296}{7625\,597\,484\,987}$	$-\frac{174\,763}{81}$	$\frac{524\,288}{243}$
495	19	−17	−29	67	$\frac{1}{52\,301\,766\,015}$	$-\frac{174\,763}{17\,433\,922\,005}$	0	$\frac{524\,288}{52\,301\,766\,015}$	0	0
496	20	−22	−24	66	$-\frac{23}{156\,905\,298\,045}$	$\frac{4019\,549}{52\,301\,766\,015}$	0	$-\frac{12\,058\,624}{156\,905\,298\,045}$	0	0
497	21	−27	−19	65	$-\frac{6375\,262\,698\,107}{1412\,147\,682\,405}$	$\frac{1114\,160\,034\,909\,273\,641}{470\,715\,894\,135}$	$\frac{1}{27}$	$-\frac{3342\,473\,729\,465\,122\,816}{1412\,147\,682\,405}$	$-\frac{174\,763}{9}$	$\frac{524\,288}{27}$
498	27	−21	−37	71	$\frac{1}{5811\,307\,335}$	$-\frac{174\,763}{1937\,102\,445}$	0	$\frac{524\,288}{5811\,307\,335}$	0	0
499	28	−26	−32	70	$-\frac{77}{52\,301\,766\,015}$	$\frac{13\,456\,751}{17\,433\,922\,005}$	0	$-\frac{40\,370\,176}{52\,301\,766\,015}$	0	0
500	29	−31	−27	69	$-\frac{1275\,052\,539\,674}{31\,381\,059\,609}$	$\frac{222\,832\,006\,991\,047\,262}{10\,460\,353\,203}$	$\frac{1}{3}$	$-\frac{668\,494\,745\,920\,602\,112}{31\,381\,059\,609}$	−174 763	$\frac{524\,288}{3}$
501	35	−25	−45	75	$\frac{1}{645\,700\,815}$	$-\frac{174\,763}{215\,233\,605}$	0	$\frac{524\,288}{645\,700\,815}$	0	0
502	36	−30	−40	74	$-\frac{17}{1162\,261\,467}$	$\frac{2970\,971}{387\,420\,489}$	0	$-\frac{8912\,896}{1162\,261\,467}$	0	0
503	37	−35	−35	73	$-\frac{19\,125\,788\,094\,881}{52\,301\,766\,015}$	$\frac{3342\,480\,104\,825\,688\,203}{17\,433\,922\,005}$	3	$-\frac{10\,027\,421\,188\,688\,969\,728}{52\,301\,766\,015}$	−1572 867	1572 864
504	44	−34	−48	78	$-\frac{31}{215\,233\,605}$	$\frac{5417\,653}{71\,744\,535}$	0	$-\frac{16\,252\,928}{215\,233\,605}$	0	0
505	45	−39	−43	77	$-\frac{6375\,262\,698\,418}{1937\,102\,445}$	$\frac{1114\,160\,034\,963\,624\,934}{645\,700\,815}$	27	$-\frac{3342\,473\,729\,628\,176\,384}{1937\,102\,445}$	−14 155 803	14 155 776
506	53	−43	−51	81	$-\frac{1275\,052\,539\,682}{43\,046\,721}$	$\frac{222\,832\,006\,992\,445\,366}{14\,348\,907}$	243	$-\frac{668\,494\,745\,924\,796\,416}{43\,046\,721}$	−127 402 227	127 401 984
507	−2	−8	−14	64	$-\frac{1}{38\,127\,987\,424\,935}$	$\frac{174\,763}{12\,709\,329\,141\,645}$	0	$-\frac{524\,288}{38\,127\,987\,424\,935}$	0	0
508	−1	−13	−9	63	$\frac{2}{12\,709\,329\,141\,645}$	$-\frac{349\,526}{4236\,443\,047\,215}$	0	$\frac{1048\,576}{12\,709\,329\,141\,645}$	0	0
509	0	−18	−4	62	$\frac{708\,362\,522\,017}{114\,383\,962\,274\,805}$	$-\frac{123\,795\,559\,435\,256\,971}{38\,127\,987\,424\,935}$	$-\frac{1}{19\,683}$	$\frac{371\,385\,969\,943\,248\,896}{114\,383\,962\,274\,805}$	$\frac{174\,763}{6561}$	$-\frac{524\,288}{19\,683}$
510	6	−12	−22	68	$-\frac{1}{4236\,443\,047\,215}$	$\frac{174\,763}{1412\,147\,682\,405}$	0	$-\frac{524\,288}{4236\,443\,047\,215}$	0	0
511	7	−17	−17	67	$\frac{62}{38\,127\,987\,424\,935}$	$-\frac{10\,835\,306}{12\,709\,329\,141\,645}$	0	$\frac{32\,505\,856}{38\,127\,987\,424\,935}$	0	0
512	8	−22	−12	66	$\frac{236\,120\,840\,662}{4236\,443\,047\,215}$	$-\frac{41\,265\,186\,476\,613\,106}{1412\,147\,682\,405}$	$-\frac{1}{2187}$	$\frac{123\,795\,323\,308\,998\,656}{4236\,443\,047\,215}$	$\frac{174\,763}{729}$	$-\frac{524\,288}{2187}$
513	14	−16	−30	72	$-\frac{1}{470\,715\,894\,135}$	$\frac{174\,763}{156\,905\,298\,045}$	0	$-\frac{524\,288}{470\,715\,894\,135}$	0	0
514	15	−21	−25	71	$\frac{14}{847\,288\,609\,443}$	$-\frac{2446\,682}{282\,429\,536\,481}$	0	$\frac{7340\,032}{847\,288\,609\,443}$	0	0
515	16	−26	−20	70	$\frac{19\,125\,788\,094\,368}{38\,127\,987\,424\,935}$	$-\frac{3342\,480\,104\,736\,034\,784}{12\,709\,329\,141\,645}$	$-\frac{1}{243}$	$\frac{10\,027\,421\,188\,420\,009\,984}{38\,127\,987\,424\,935}$	$\frac{174\,763}{81}$	$-\frac{524\,288}{243}$
516	22	−20	−38	76	$-\frac{1}{52\,301\,766\,015}$	$\frac{174\,763}{17\,433\,922\,005}$	0	$-\frac{524\,288}{52\,301\,766\,015}$	0	0
517	23	−25	−33	75	$\frac{26}{156\,905\,298\,045}$	$-\frac{4543\,838}{52\,301\,766\,015}$	0	$\frac{13\,631\,488}{156\,905\,298\,045}$	0	0
518	24	−30	−28	74	$\frac{6375\,262\,698\,107}{1412\,147\,682\,405}$	$-\frac{1114\,160\,034\,909\,273\,641}{470\,715\,894\,135}$	$-\frac{1}{27}$	$\frac{3342\,473\,729\,465\,122\,816}{1412\,147\,682\,405}$	$\frac{174\,763}{9}$	$-\frac{524\,288}{27}$
519	30	−24	−46	80	$-\frac{1}{5811\,307\,335}$	$\frac{174\,763}{1937\,102\,445}$	0	$-\frac{524\,288}{5811\,307\,335}$	0	0
520	31	−29	−41	79	$\frac{86}{52\,301\,766\,015}$	$-\frac{15\,029\,618}{17\,433\,922\,005}$	0	$\frac{45\,088\,768}{52\,301\,766\,015}$	0	0

521	32	−34	−36	78	$\frac{6375262698211}{156905298045}$	$-\frac{1114160034927448993}{52301766015}$	$-\frac{1}{3}$	$\frac{3342473729519648768}{156905298045}$	174763	$-\frac{524288}{3}$
522	39	−33	−49	83	$\frac{94}{5811307335}$	$-\frac{16427722}{1937102445}$	0	$\frac{49283072}{5811307335}$	0	0
523	40	−38	−44	82	$\frac{19125788094881}{52301766015}$	$-\frac{3342480104825688203}{17433922005}$	−3	$\frac{10027421188688969728}{52301766015}$	1572867	−1572864
524	48	−42	−52	86	$\frac{6375262698418}{1937102445}$	$-\frac{1114160034963624934}{645700815}$	−27	$\frac{3342473729628176384}{1937102445}$	14155803	−14155776
525	1	−11	−23	73	$\frac{1}{38127987424935}$	$-\frac{174763}{12709329141645}$	0	$\frac{524288}{38127987424935}$	0	0
526	2	−16	−18	72	$-\frac{7}{38127987424935}$	$\frac{1223341}{12709329141645}$	0	$-\frac{3670016}{38127987424935}$	0	0
527	3	−21	−13	71	$-\frac{708362522017}{114383962274805}$	$\frac{123795559435256971}{38127987424935}$	$\frac{1}{19683}$	$-\frac{371385969943248896}{114383962274805}$	$-\frac{174763}{6561}$	$\frac{524288}{19683}$
528	9	−15	−31	77	$\frac{1}{4236443047215}$	$-\frac{174763}{1412147682405}$	0	$\frac{524288}{4236443047215}$	0	0
529	10	−20	−26	76	$-\frac{71}{38127987424935}$	$\frac{12408173}{12709329141645}$	0	$-\frac{37224448}{38127987424935}$	0	0
530	11	−25	−21	75	$-\frac{2125087566046}{38127987424935}$	$\frac{371386678304897098}{12709329141645}$	$\frac{1}{2187}$	$-\frac{1114157909827125248}{38127987424935}$	$-\frac{174763}{729}$	$\frac{524288}{2187}$
531	17	−19	−39	81	$\frac{1}{470715894135}$	$-\frac{174763}{156905298045}$	0	$\frac{524288}{470715894135}$	0	0
532	18	−24	−34	80	$-\frac{79}{4236443047215}$	$\frac{13806277}{1412147682405}$	0	$-\frac{41418752}{4236443047215}$	0	0
533	19	−29	−29	79	$-\frac{19125788094368}{38127987424935}$	$\frac{3342480104736034784}{12709329141645}$	$\frac{1}{243}$	$-\frac{10027421188420009984}{38127987424935}$	$-\frac{174763}{81}$	$\frac{524288}{243}$
534	25	−23	−47	85	$\frac{1}{52301766015}$	$-\frac{174763}{17433922005}$	0	$\frac{524288}{52301766015}$	0	0
535	26	−28	−42	84	$-\frac{29}{156905298045}$	$\frac{5068127}{52301766015}$	0	$-\frac{15204352}{156905298045}$	0	0
536	27	−33	−37	83	$-\frac{6375262698107}{1412147682405}$	$\frac{1114160034909273641}{470715894135}$	$\frac{1}{27}$	$-\frac{3342473729465122816}{1412147682405}$	$-\frac{174763}{9}$	$\frac{524288}{27}$
537	34	−32	−50	88	$-\frac{19}{10460353203}$	$\frac{3320497}{3486784401}$	0	$-\frac{9961472}{10460353203}$	0	0
538	35	−37	−45	87	$-\frac{6375262698211}{156905298045}$	$\frac{1114160034927448993}{52301766015}$	$\frac{1}{3}$	$-\frac{3342473729519648768}{156905298045}$	−174763	$\frac{524288}{3}$
539	43	−41	−53	91	$-\frac{19125788094881}{52301766015}$	$\frac{3342480104825688203}{17433922005}$	3	$-\frac{10027421188688969728}{52301766015}$	−1572867	1572864
540	4	−14	−32	82	$-\frac{1}{38127987424935}$	$\frac{174763}{12709329141645}$	0	$-\frac{524288}{38127987424935}$	0	0
541	5	−19	−27	81	$\frac{8}{38127987424935}$	$-\frac{1398104}{12709329141645}$	0	$\frac{4194304}{38127987424935}$	0	0
542	6	−24	−22	80	$\frac{708362522017}{114383962274805}$	$-\frac{123795559435256971}{38127987424935}$	$-\frac{1}{19683}$	$\frac{371385969943248896}{114383962274805}$	$\frac{174763}{6561}$	$-\frac{524288}{19683}$
543	12	−18	−40	86	$-\frac{1}{4236443047215}$	$\frac{174763}{1412147682405}$	0	$-\frac{524288}{4236443047215}$	0	0
544	13	−23	−35	85	$\frac{16}{7625597484987}$	$-\frac{2796208}{2541865828329}$	0	$\frac{8388608}{7625597484987}$	0	0
545	14	−28	−30	84	$\frac{425017513226}{7625597484987}$	$-\frac{74277335663915438}{2541865828329}$	$-\frac{1}{2187}$	$\frac{222831581974233088}{7625597484987}$	$\frac{174763}{729}$	$-\frac{524288}{2187}$
546	20	−22	−48	90	$-\frac{1}{470715894135}$	$\frac{174763}{156905298045}$	0	$-\frac{524288}{470715894135}$	0	0
547	21	−27	−43	89	$\frac{88}{4236443047215}$	$-\frac{15379144}{1412147682405}$	0	$\frac{46137344}{4236443047215}$	0	0
548	22	−32	−38	88	$\frac{3825157618942}{7625597484987}$	$-\frac{668496020959160746}{2541865828329}$	$-\frac{1}{243}$	$\frac{2005484237719863296}{7625597484987}$	$\frac{174763}{81}$	$-\frac{524288}{243}$
549	29	−31	−51	93	$\frac{32}{156905298045}$	$-\frac{5592416}{52301766015}$	0	$\frac{16777216}{156905298045}$	0	0
550	30	−36	−46	92	$\frac{6375262698107}{1412147682405}$	$-\frac{1114160034909273641}{470715894135}$	$-\frac{1}{27}$	$\frac{3342473729465122816}{1412147682405}$	$\frac{174763}{9}$	$-\frac{524288}{27}$
551	38	−40	−54	96	$\frac{6375262698211}{156905298045}$	$-\frac{1114160034927448993}{52301766015}$	$-\frac{1}{3}$	$\frac{3342473729519648768}{156905298045}$	174763	$-\frac{524288}{3}$
552	7	−17	−41	91	$\frac{1}{38127987424935}$	$-\frac{174763}{12709329141645}$	0	$\frac{524288}{38127987424935}$	0	0
553	8	−22	−36	90	$-\frac{1}{4236443047215}$	$\frac{174763}{1412147682405}$	0	$-\frac{524288}{4236443047215}$	0	0
554	9	−27	−31	89	$-\frac{708362522017}{114383962274805}$	$\frac{123795559435256971}{38127987424935}$	$\frac{1}{19683}$	$-\frac{371385969943248896}{114383962274805}$	$-\frac{174763}{6561}$	$\frac{524288}{19683}$
555	15	−21	−49	95	$\frac{1}{4236443047215}$	$-\frac{174763}{1412147682405}$	0	$\frac{524288}{4236443047215}$	0	0
556	16	−26	−44	94	$-\frac{89}{38127987424935}$	$\frac{15553907}{12709329141645}$	0	$-\frac{46661632}{38127987424935}$	0	0
557	17	−31	−39	93	$-\frac{141672504400}{2541865828329}$	$\frac{24759111886457200}{847288609443}$	$\frac{1}{2187}$	$-\frac{74277193986867200}{2541865828329}$	$-\frac{174763}{729}$	$\frac{524288}{2187}$
558	24	−30	−52	98	$-\frac{97}{4236443047215}$	$\frac{16952011}{1412147682405}$	0	$-\frac{50855936}{4236443047215}$	0	0
559	25	−35	−47	97	$-\frac{19125788094368}{38127987424935}$	$\frac{3342480104736034784}{12709329141645}$	$\frac{1}{243}$	$-\frac{10027421188420009984}{38127987424935}$	$-\frac{174763}{81}$	$\frac{524288}{243}$
560	33	−39	−55	101	$-\frac{6375262698107}{1412147682405}$	$\frac{1114160034909273641}{470715894135}$	$\frac{1}{27}$	$-\frac{3342473729465122816}{1412147682405}$	$-\frac{174763}{9}$	$\frac{524288}{27}$
561	10	−20	−50	100	$-\frac{1}{38127987424935}$	$\frac{174763}{12709329141645}$	0	$-\frac{524288}{38127987424935}$	0	0
562	11	−25	−45	99	$\frac{2}{7625597484987}$	$-\frac{349526}{2541865828329}$	0	$\frac{1048576}{7625597484987}$	0	0
563	12	−30	−40	98	$\frac{708362522017}{114383962274805}$	$-\frac{123795559435256971}{38127987424935}$	$-\frac{1}{19683}$	$\frac{371385969943248896}{114383962274805}$	$\frac{174763}{6561}$	$-\frac{524288}{19683}$
564	19	−29	−53	103	$\frac{98}{38127987424935}$	$-\frac{17126774}{12709329141645}$	0	$\frac{51380224}{38127987424935}$	0	0
565	20	−34	−48	102	$\frac{2125087566046}{38127987424935}$	$-\frac{371386678304897098}{12709329141645}$	$-\frac{1}{2187}$	$\frac{1114157909827125248}{38127987424935}$	$\frac{174763}{729}$	$-\frac{524288}{2187}$
566	28	−38	−56	106	$\frac{3825157618942}{7625597484987}$	$-\frac{668496020959160746}{2541865828329}$	$-\frac{1}{243}$	$\frac{2005484237719863296}{7625597484987}$	$\frac{174763}{81}$	$-\frac{524288}{243}$
567	14	−28	−54	108	$-\frac{11}{38127987424935}$	$\frac{1922393}{12709329141645}$	0	$-\frac{5767168}{38127987424935}$	0	0
568	15	−33	−49	107	$-\frac{708362522017}{114383962274805}$	$\frac{123795559435256971}{38127987424935}$	$\frac{1}{19683}$	$-\frac{371385969943248896}{114383962274805}$	$-\frac{174763}{6561}$	$\frac{524288}{19683}$
569	23	−37	−57	111	$-\frac{2125087566046}{38127987424935}$	$\frac{371386678304897098}{12709329141645}$	$\frac{1}{2187}$	$-\frac{1114157909827125248}{38127987424935}$	$-\frac{174763}{729}$	$\frac{524288}{2187}$
570	18	−36	−58	116	$\frac{708362522017}{114383962274805}$	$-\frac{123795559435256971}{38127987424935}$	$-\frac{1}{19683}$	$\frac{371385969943248896}{114383962274805}$	$\frac{174763}{6561}$	$-\frac{524288}{19683}$

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