

PROOF OF THE CONTINUED FRACTION CONJECTURE FOR

$$(a, b) = (z^3, z^4 + z^3 + z^2 + z + 1)$$

GUO-NIU HAN* AND YINING HU*

ABSTRACT. The continued fraction conjecture claims that the continued fraction defined by the (a, b) -Thue-Morse sequence is algebraic over $\mathbb{F}_2(x)$ for all pairs of distinct elements (a, b) in $\mathbb{F}_2[x] \setminus \mathbb{F}_2$. In this paper we prove the conjecture for $(a, b) = (z^3, z^4 + z^3 + z^2 + z + 1)$.

1. INTRODUCTION

Let $\mathbb{F}_2$ be the finite field of cardinality 2. Given a sequence of polynomials $\mathbf{a} = (a_0(z), a_1(z), a_2(z), \dots)$ of elements from $\mathbb{F}_2[z] \setminus \mathbb{F}_2$, we define the infinite continued fraction

$$(1.1) \quad \text{CF}(\mathbf{a}(z)) = \frac{1}{a_0(z) + \frac{1}{a_1(z) + \frac{1}{a_2(z) + \frac{1}{\ddots}}}}$$

as the limit of the finite continued fractions

$$(1.2) \quad \text{CF}_n(\mathbf{a}(z)) = \frac{1}{a_0(z) + \frac{1}{a_1(z) + \frac{1}{\ddots + \frac{1}{a_n(z)}}}} \in \mathbb{F}_2((1/z)).$$

Conversely, each power series in $\mathbb{F}_2[[1/z]]$ without constant term

$$(1.3) \quad c_{-1}z^{-1} + c_{-2}z^{-2} + c_{-3}z^{-3} + \dots$$

admits a continued fraction expansion of form (1.1).

Let a and b be two distinct elements from $\mathbb{F}_2[z] \setminus \mathbb{F}_2$. We consider the continued fraction (1.1) associated with the (a, b) -Thue-Morse sequence

$$\mathbf{t} = (t_0(z), t_1(z), t_2(z), \dots) = (a, b, b, a, b, a, a, b, \dots)$$

that we shall denote

$$(1.4) \quad \text{CF}(a, b) := \text{CF}(\mathbf{t}).$$

Date: 9/04/2020 17:26:06 .

2010 Mathematics Subject Classification. 11B85, 11J70, 11B50, 11Y65, 05A15.

Key words and phrases. automatic sequence, continued fraction, Thue-Morse sequence.

* This paper was automatically generated from a computer program developed by the authors, with 2.6 hours CPU time used.

Theorem 1.1. *When $(a, b) = (z^3, z^4 + z^3 + z^2 + z + 1)$, the two power series $\text{CF}(a, b)$ and $\text{CF}(b, a)$ are algebraic over $\mathbb{F}_2(z)$, with minimal polynomials of the form*

$$p_4(z)y^4 + p_3(z)y^3 + p_2(z)y^2 + p_1(z)y + p_0(z) = 0$$

where, for $\text{CF}(a, b)$,

$$\begin{aligned} p_0(z) &= z^{21} + z^{20} + z^{17} + z^{16} + z^{12} + z^{10} + z^9 + z^7 + z^6 + z^3 + 1, \\ p_1(z) &= z^{25} + z^{24} + z^{23} + z^{21} + z^{20} + z^{19} + z^{17} + z^{15} + z^{12} + z^{10} + z^6 + z^3, \\ p_2(z) &= z^{28} + z^{24} + z^{22} + z^{10} + z^6, \\ p_3(z) &= z^{25} + z^{24} + z^{23} + z^{21} + z^{20} + z^{19} + z^{17} + z^{15} + z^{12} + z^{10} + z^6 + z^3, \\ p_4(z) &= z^{22} + z^{21} + z^{17} + z^{16} + z^9 + z^8 + z^7 + z^4 + z^3, \end{aligned}$$

and for $\text{CF}(b, a)$,

$$\begin{aligned} p_0(z) &= z^{21} + z^{20} + z^{17} + z^{12} + z^{10} + z^9 + z^8 + z^7 + z^6 + z^4 + z^3, \\ p_1(z) &= z^{25} + z^{24} + z^{23} + z^{21} + z^{20} + z^{19} + z^{17} + z^{15} + z^{12} + z^{10} + z^6 + z^3, \\ p_2(z) &= z^{28} + z^{24} + z^{22} + z^{10} + z^6, \\ p_3(z) &= z^{25} + z^{24} + z^{23} + z^{21} + z^{20} + z^{19} + z^{17} + z^{15} + z^{12} + z^{10} + z^6 + z^3, \\ p_4(z) &= z^{22} + z^{21} + z^{17} + z^9 + z^7 + z^3 + 1. \end{aligned}$$

2. PROOF

Define the sequences of polynomials $(P_n(z))_{n \geq 0}$ and $(Q_n(z))_{n \geq 0}$ by

$$\begin{pmatrix} P_n(z) & Q_n(z) \\ P_{n-1}(z) & Q_{n-1}(z) \end{pmatrix} := \begin{pmatrix} t_n(z) & 1 \\ 1 & 0 \end{pmatrix} \begin{pmatrix} t_{n-1}(z) & 1 \\ 1 & 0 \end{pmatrix} \cdots \begin{pmatrix} t_0(z) & 1 \\ 1 & 0 \end{pmatrix} \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}.$$

By the basic properties of continued fractions, we have

$$(2.1) \quad \text{CF}_n(a, b) = \frac{P_n(z)}{Q_n(z)} \in \mathbb{F}_2((1/z)).$$

As formula (2.1) is not efficient for calculating $\text{CF}_n(a, b)$, a fast method is to be derived and described as follows. Define

$$\begin{aligned} M_n(x) &= x^{\deg(t_{2^n-1})} \begin{pmatrix} t_{2^n-1}(1/x) & 1 \\ 1 & 0 \end{pmatrix} \times x^{\deg(t_{2^n-2})} \begin{pmatrix} t_{2^n-2}(1/x) & 1 \\ 1 & 0 \end{pmatrix} \times \\ &\quad \cdots \times x^{\deg(t_0)} \begin{pmatrix} t_0(1/x) & 1 \\ 1 & 0 \end{pmatrix}, \\ W_n(x) &= x^{\deg(\bar{t}_{2^n-1})} \begin{pmatrix} \bar{t}_{2^n-1}(1/x) & 1 \\ 1 & 0 \end{pmatrix} \times x^{\deg(\bar{t}_{2^n-2})} \begin{pmatrix} \bar{t}_{2^n-2}(1/x) & 1 \\ 1 & 0 \end{pmatrix} \times \\ &\quad \cdots \times x^{\deg(\bar{t}_0)} \begin{pmatrix} \bar{t}_0(1/x) & 1 \\ 1 & 0 \end{pmatrix}, \end{aligned}$$

where $\bar{t}$ is the (b, a) -Thue-Morse sequence. By the properties of the Thue-Morse sequence, we have for $n \geq 0$

$$\begin{aligned} M_{n+1}(x) &= W_n(x) \cdot M_n(x), \\ W_{n+1}(x) &= M_n(x) \cdot W_n(x). \end{aligned}$$

Let $x := 1/z$. For each non-zero polynomial $P(z)$, define $\tilde{P}(x)$ to be $P(1/x)$. Then,

$$\text{CF}_n(a, b) = \frac{P_n(z)}{Q_n(z)} = \frac{\tilde{P}_n(x)}{\tilde{Q}_n(x)} \in \mathbb{F}_2((x)) = \mathbb{F}_2((1/z)).$$

Comparing the definition of $M_n(x)$ with the definition of $P_n(x)$ and $Q_n(x)$, we see that

$$\begin{aligned} M_n(x)_{0,1} &= x^{d_n} \tilde{P}_{2^n-1}(x), \\ M_n(x)_{0,0} &= x^{d_n} \tilde{Q}_{2^n-1}(x), \end{aligned}$$

for some positive integer d_n . Hence,

$$(2.2) \quad \text{CF}_{2^{2^n}-1}(a, b) = \frac{\tilde{P}_{2^{2^n}-1}(x)}{\tilde{Q}_{2^{2^n}-1}(x)} = \frac{M_{2^n}(x)_{0,1}}{M_{2^n}(x)_{0,0}}.$$

Therefore, by the convergence theorem of continued fraction, the algebraicity of $\text{CF}(a, b)$ will be established if it is shown that both $M_{2^n}(x)_{0,1}$ and $M_{2^n}(x)_{0,0}$ converge to algebraic series in $\mathbb{F}_2[[x]]$.

Actually, we will prove that for all $0 \leq i, j \leq 1$ the four sequences $(M_{2^n}(x)_{i,j})_n$, $(M_{2^{n+1}}(x)_{i,j})_n$, $(W_{2^n}(x)_{i,j})_n$, and $(W_{2^{n+1}}(x)_{i,j})_n$ converge to algebraic series in $\mathbb{F}_2[[x]]$. For this purpose, we define four 2×2 matrices M^e, M^o, W^e, W^o as follows: For each $T \in \{M^e, M^o, W^e, W^o\}$ and $0 \leq i, j \leq 1$, $T_{i,j}$ is defined to be the unique solution in $\mathbb{F}_2[[x]]$ of the polynomial $\phi(T, i, j)$ under certain initial conditions; the polynomials $\phi(T, i, j)$ and initial conditions are given in Section 3. We will prove that these four matrices, whose components are algebraic by definition, are the limits of $(M_{2^n}(x))_n$, $(M_{2^{n+1}}(x))_n$, $(W_{2^n}(x))_n$, and $(W_{2^{n+1}}(x))_n$.

Let us explain how the polynomials $\phi(T, i, j)$ and initial conditions are found, and why the solutions exist and are unique. For $0 \leq i, j \leq 1$, the coefficients of the polynomial $\phi(M^e, i, j)$ (resp. $\phi(M^o, i, j)$, $\phi(W^e, i, j)$, and $\phi(W^o, i, j)$) are the Padé-Hermite approximants of type

$$(175, 175, 175, 175, 175)$$

of the vector

$$(1, T^3, T^6, T^9, T^{12}),$$

where $T = M_{12,i,j}$ (resp. $M_{11,i,j}$, $W_{12,i,j}$, and $W_{11,i,j}$), found by the Derksen algorithm. We take the first 8 terms of $M_{12,i,j}$ (resp. $M_{11,i,j}$, $W_{12,i,j}$, and $W_{11,i,j}$) as initial conditions for $\phi(M^e, i, j)$ (resp. $\phi(M^o, i, j)$, $\phi(W^e, i, j)$, and $\phi(W^o, i, j)$). The following fact will be used to ensure that the solution exists and is unique: let $P(x, y) \in \mathbb{F}_2[x, y]$ and for each series $f(x) = \sum_{n=0}^{\infty} a_n x^n \in \mathbb{F}_2[[x]]$ denote the partial sum $\sum_{j=0}^{n-1} a_j x^j$ by $f_n(x)$ for $n \geq 0$. If for some $n \geq 0$ and $a_0, a_1, \dots, a_{n-1} \in \mathbb{F}_2$ $P(x, \sum_{j=0}^{n-1} a_j x^j) = O(x^n)$ and $Q(x, y) := P(x, \sum_{j=0}^{n-1} a_j x^j + x^n y)$ can be written as $x^m \sum_{j=0}^{\infty} q_j(x) y^j$ where $q_j(x)$ are polynomials for $j \geq 0$, $q_1(0) = 1$, and $q_j(0) = 0$ for $j > 1$, then there exists a unique solution $f(x) \in \mathbb{F}_2[[x]]$ of $P(x, f(x)) = 0$ that satisfies the initial condition $f_n(x) = \sum_{j=0}^{n-1} a_j x^j$.

We state two lemmas concerning the four matrices M^e, M^o, W^e, W^o . The first one is about relations between them; the second, about the structure of the each matrix.

Lemma 2.1. *We have*

$$(2.3) \quad M^e = W^o \cdot M^o,$$

$$(2.4) \quad M^o = W^e \cdot M^e,$$

$$(2.5) \quad W^e = M^o \cdot W^o,$$

$$(2.6) \quad W^o = M^e \cdot W^e.$$

Proof. We give the proof of the identity

$$M_{0,0}^e = W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o,$$

the proofs of the others being similar.

First, we compute the minimal polynomials of $W_{0,0}^o M_{0,0}^o$ and $W_{0,1}^o M_{1,0}^o$. We know that

$$P(x, y) = \text{Res}_z (\phi(W^o, 0, 0)(x, z), z^{12} \cdot \phi(M^o, 0, 0)(x, y/z))$$

is an annihilating polynomial of $W_{0,0}^o M_{0,0}^o$. We use Padé-Hermite approximation to find a candidate for the minimal polynomial of $W_{0,0}^o M_{0,0}^o$, that will be called $\phi_0(x, y)$. To prove that $\phi_0(x, y)$ is indeed the minimal polynomial, it suffices to prove that it is an irreducible factor of $P(x, y)$ of multiplicity m and that $Q(x, y) := P(x, y)/\phi_0(x, y)^m$ is not an annihilating polynomial of $W_{0,0}^o M_{0,0}^o$. We verify the first point directly. For the second point, we truncate $W_{0,0}^o M_{0,0}^o$ to order 630 and substitute it for y in $Q(x, y)$. We get a series of valuation less than 630, which proves that $Q(x, y)$ is not an annihilating polynomial of $W_{0,0}^o M_{0,0}^o$. We find the minimal polynomial $\phi_1(x, y)$ of $W_{0,1}^o M_{1,0}^o$ in a similar way.

Now we prove that $\phi(M^e, 0, 0)$ is the minimal polynomial of $W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o$. We know that

$$S(x, y) = \text{Res}_z (\phi_0(x, z), \phi_1(x, y + z))$$

is an annihilating of $W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o$. We verify that $\phi(M^e, 0, 0)$ is an irreducible factor of $S(x, y)$ of multiplicity μ , and that $Q(x, y) := S(x, y)/\phi(M^e, 0, 0)^\mu$ is not an annihilating polynomial of $W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o$. To see the last point, we truncate $W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o$ to order 770 and substitute it for y in $Q(x, y)$. We get a series of valuation less than 770, and therefore $Q(x, y)$ is not an annihilating polynomial of $W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o$.

Finally, the first 16 terms of $M_{0,0}^e$ and $W_{0,0}^o M_{0,0}^o + W_{0,1}^o M_{1,0}^o$ coincide. As these first terms determine a unique solution of $\phi(M^e, 0, 0)$, we know that the two series are one and the same. $\square$

Define

$$R^e = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \quad \text{and} \quad R^o = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}.$$

Lemma 2.2. *For all integers $k \geq 2$ and $u = 2^{2k-1}$, the following identities hold.*

$$\begin{aligned} M^e[:14u] &= M^e[:7u] + x^u M^e[:6u] + x^{2u} M^e[:5u] + x^{3u} M^e[:4u] + x^{4u} M^e[:3u] \\ &\quad + x^{6u} M^e[:u] + x^u M^e[:7u] + x^{2u} M^e[:6u] + x^{3u} M^e[:5u] \\ &\quad + x^{4u} M^e[:4u] + x^{5u} M^e[:3u] + x^{7u} M^e[:u] + x^{5u} M^e[:7u] \\ &\quad + x^{6u} M^e[:6u] + x^{7u} M^e[:5u] + x^{8u} M^e[:4u] + x^{9u} M^e[:3u] \\ &\quad + x^{11u} M^e[:u] + x^{7u} M^e[:7u] + x^{9u} M^e[:5u] + x^{10u} M^e[:4u] \\ &\quad + x^{13u} M^e[:u] + (x^{7u} + x^{8u} + x^{12u}) R^e, \end{aligned}$$

$$\begin{aligned}
W^e[:14u] &= W^e[:7u] + x^u W^e[:6u] + x^{2u} W^e[:5u] + x^{3u} W^e[:4u] + x^{4u} W^e[:3u] \\
&\quad + x^{6u} W^e[:u] + x^u W^e[:7u] + x^{2u} W^e[:6u] + x^{3u} W^e[:5u] \\
&\quad + x^{4u} W^e[:4u] + x^{5u} W^e[:3u] + x^{7u} W^e[:u] + x^{5u} W^e[:7u] \\
&\quad + x^{6u} W^e[:6u] + x^{7u} W^e[:5u] + x^{8u} W^e[:4u] + x^{9u} W^e[:3u] \\
&\quad + x^{11u} W^e[:u] + x^{7u} W^e[:7u] + x^{9u} W^e[:5u] + x^{10u} W^e[:4u] \\
&\quad + x^{13u} W^e[:u] + (x^{7u} + x^{8u} + x^{12u}) R^e.
\end{aligned}$$

For all integers $k \geq 2$ and $u = 2^{2k}$, the following identities hold.

$$\begin{aligned}
M^o[:14u] &= M^o[:7u] + x^u M^o[:6u] + x^{2u} M^o[:5u] + x^{3u} M^o[:4u] + x^{4u} M^o[:3u] \\
&\quad + x^{6u} M^o[:u] + x^u M^o[:7u] + x^{2u} M^o[:6u] + x^{3u} M^o[:5u] \\
&\quad + x^{4u} M^o[:4u] + x^{5u} M^o[:3u] + x^{7u} M^o[:u] + x^{5u} M^o[:7u] \\
&\quad + x^{6u} M^o[:6u] + x^{7u} M^o[:5u] + x^{8u} M^o[:4u] + x^{9u} M^o[:3u] \\
&\quad + x^{11u} M^o[:u] + x^{7u} M^o[:7u] + x^{9u} M^o[:5u] + x^{10u} M^o[:4u] \\
&\quad + x^{13u} M^o[:u] + (x^{7u} + x^{8u} + x^{12u}) R^o, \\
W^o[:14u] &= W^o[:7u] + x^u W^o[:6u] + x^{2u} W^o[:5u] + x^{3u} W^o[:4u] + x^{4u} W^o[:3u] \\
&\quad + x^{6u} W^o[:u] + x^u W^o[:7u] + x^{2u} W^o[:6u] + x^{3u} W^o[:5u] \\
&\quad + x^{4u} W^o[:4u] + x^{5u} W^o[:3u] + x^{7u} W^o[:u] + x^{5u} W^o[:7u] \\
&\quad + x^{6u} W^o[:6u] + x^{7u} W^o[:5u] + x^{8u} W^o[:4u] + x^{9u} W^o[:3u] \\
&\quad + x^{11u} W^o[:u] + x^{7u} W^o[:7u] + x^{9u} W^o[:5u] + x^{10u} W^o[:4u] \\
&\quad + x^{13u} W^o[:u] + (x^{7u} + x^{8u} + x^{12u}) R^o.
\end{aligned}$$

Proof. To prove Lemma 2.2 we first construct an automaton for each sequence concerned, and then transform the conditions on infinitely many k 's into finitely many conditions on the states of the automaton. In the following, we will prove that for $T = M_{0,0}^o$, for all integer $k \geq 2$ and $u = 2^{2k}$,

$$\begin{aligned}
T[:14u] &= T[:7u] + x^u T[:6u] + x^{2u} T[:5u] + x^{3u} T[:4u] + x^{4u} T[:3u] + x^{6u} T[:u] \\
&\quad + x^u T[:7u] + x^{2u} T[:6u] + x^{3u} T[:5u] + x^{4u} T[:4u] + x^{5u} T[:3u] \\
&\quad + x^{7u} T[:u] + x^{5u} T[:7u] + x^{6u} T[:6u] + x^{7u} T[:5u] + x^{8u} T[:4u] \\
&\quad + x^{9u} T[:3u] + x^{11u} T[:u] + x^{7u} T[:7u] + x^{9u} T[:5u] + x^{10u} T[:4u] \\
&\quad + x^{13u} T[:u].
\end{aligned}$$

The proof of the other 15 cases are similar. We break down the above identity into 7 parts:

$$\begin{aligned}
0 &= x^{7u} T[:u] + x^{6u} T[u:2u] + x^{4u} T[3u:4u] + x^{3u} T[4u:5u] \\
&\quad + x^{2u} T[5u:6u] + x^u T[6u:7u] + T[7u:8u], \\
0 &= x^{8u} T[:u] + x^{6u} T[2u:3u] + x^{5u} T[3u:4u] + T[8u:9u], \\
0 &= x^{8u} T[u:2u] + x^{6u} T[3u:4u] + x^{5u} T[4u:5u] + T[9u:10u], \\
0 &= x^{10u} T[:u] + x^{8u} T[2u:3u] + x^{6u} T[4u:5u] + x^{5u} T[5u:6u] \\
&\quad + T[10u:11u],
\end{aligned}$$

$$\begin{aligned}
0 &= x^{11u}T[:u] + x^{10u}T[u:2u] + x^{8u}T[3u:4u] + x^{6u}T[5u:6u] \\
&\quad + x^{5u}T[6u:7u] + T[11u:12u], \\
0 &= x^{10u}T[2u:3u] + x^{9u}T[3u:4u] + x^{7u}T[5u:6u] + T[12u:13u], \\
0 &= x^{13u}T[:u] + x^{10u}T[3u:4u] + x^{9u}T[4u:5u] + x^{7u}T[6u:7u] \\
&\quad + T[13u:14u],
\end{aligned}$$

which can be rewritten as

$$\begin{aligned}
(2.7) \quad 0 &= T[[w]_2] + T[[1w]_2] + T[[11w]_2] + T[[100w]_2] + T[[101w]_2] \\
&\quad + T[[110w]_2] + T[[111w]_2], \\
(2.8) \quad 0 &= T[[w]_2] + T[[10w]_2] + T[[11w]_2] + T[[1000w]_2], \\
(2.9) \quad 0 &= T[[1w]_2] + T[[11w]_2] + T[[100w]_2] + T[[1001w]_2], \\
(2.10) \quad 0 &= T[[w]_2] + T[[10w]_2] + T[[100w]_2] + T[[101w]_2] + T[[1010w]_2], \\
&\quad 0 = T[[w]_2] + T[[1w]_2] + T[[11w]_2] + T[[101w]_2] + T[[110w]_2] \\
(2.11) \quad &\quad + T[[1011w]_2], \\
(2.12) \quad 0 &= T[[10w]_2] + T[[11w]_2] + T[[101w]_2] + T[[1100w]_2], \\
(2.13) \quad 0 &= T[[w]_2] + T[[11w]_2] + T[[100w]_2] + T[[110w]_2] + T[[1101w]_2],
\end{aligned}$$

for all binary word w of length $2k$ and $w \neq 0^{2k}$, and

$$\begin{aligned}
(2.14) \quad 0 &= T[[w]_2] + T[[1w]_2] + T[[11w]_2] + T[[100w]_2] + T[[101w]_2] \\
&\quad + T[[110w]_2] + T[[111w]_2], \\
(2.15) \quad 0 &= T[[w]_2] + T[[10w]_2] + T[[11w]_2] + T[[1000w]_2], \\
(2.16) \quad 0 &= T[[1w]_2] + T[[11w]_2] + T[[100w]_2] + T[[1001w]_2], \\
(2.17) \quad 0 &= T[[w]_2] + T[[10w]_2] + T[[100w]_2] + T[[101w]_2] + T[[1010w]_2], \\
&\quad 0 = T[[w]_2] + T[[1w]_2] + T[[11w]_2] + T[[101w]_2] + T[[110w]_2] \\
(2.18) \quad &\quad + T[[1011w]_2], \\
(2.19) \quad 0 &= T[[10w]_2] + T[[11w]_2] + T[[101w]_2] + T[[1100w]_2], \\
(2.20) \quad 0 &= T[[w]_2] + T[[11w]_2] + T[[100w]_2] + T[[110w]_2] + T[[1101w]_2],
\end{aligned}$$

for $w = 0^{2k}$.

First we calculate an 2-automaton that generates T from its minimal polynomial and its first terms. This automaton has 5729 states; its transition function and output function can be found in the annex. Let $A(s, w)$ denote the state reached after reading w from right to left starting from the state s , and τ the output function. Define

$$E_{2k} = \{A(i, w) : |w| = 2k, w \neq 0^{2k}\}.$$

Identities (2.7) through (2.20) can be written as

$$\begin{aligned}
(2.21) \quad 0 &= \tau(A(s, \epsilon)) + \tau(A(s, 1)) + \tau(A(s, 11)) + \tau(A(s, 100)) \\
&\quad + \tau(A(s, 101)) + \tau(A(s, 110)) + \tau(A(s, 111)), \\
(2.22) \quad 0 &= \tau(A(s, \epsilon)) + \tau(A(s, 10)) + \tau(A(s, 11)) + \tau(A(s, 1000)), \\
(2.23) \quad 0 &= \tau(A(s, 1)) + \tau(A(s, 11)) + \tau(A(s, 100)) + \tau(A(s, 1001)), \\
&\quad 0 = \tau(A(s, \epsilon)) + \tau(A(s, 10)) + \tau(A(s, 100)) + \tau(A(s, 101))
\end{aligned}$$

$$\begin{aligned}
(2.24) \quad & +\tau(A(s, 1010)), \\
& 0 = \tau(A(s, \epsilon)) + \tau(A(s, 1)) + \tau(A(s, 11)) + \tau(A(s, 101)) \\
(2.25) \quad & +\tau(A(s, 110)) + \tau(A(s, 1011)), \\
(2.26) \quad & 0 = \tau(A(s, 10)) + \tau(A(s, 11)) + \tau(A(s, 101)) + \tau(A(s, 1100)), \\
& 0 = \tau(A(s, \epsilon)) + \tau(A(s, 11)) + \tau(A(s, 100)) + \tau(A(s, 110)) \\
(2.27) \quad & +\tau(A(s, 1101)),
\end{aligned}$$

for all $s \in E_{2k}$, and

$$\begin{aligned}
& 0 = \tau(A(s, \epsilon)) + \tau(A(s, 1)) + \tau(A(s, 11)) + \tau(A(s, 100)) \\
(2.28) \quad & +\tau(A(s, 101)) + \tau(A(s, 110)) + \tau(A(s, 111)), \\
(2.29) \quad & 0 = \tau(A(s, \epsilon)) + \tau(A(s, 10)) + \tau(A(s, 11)) + \tau(A(s, 1000)), \\
(2.30) \quad & 0 = \tau(A(s, 1)) + \tau(A(s, 11)) + \tau(A(s, 100)) + \tau(A(s, 1001)), \\
& 0 = \tau(A(s, \epsilon)) + \tau(A(s, 10)) + \tau(A(s, 100)) + \tau(A(s, 101)) \\
(2.31) \quad & +\tau(A(s, 1010)), \\
& 0 = \tau(A(s, \epsilon)) + \tau(A(s, 1)) + \tau(A(s, 11)) + \tau(A(s, 101)) \\
(2.32) \quad & +\tau(A(s, 110)) + \tau(A(s, 1011)), \\
(2.33) \quad & 0 = \tau(A(s, 10)) + \tau(A(s, 11)) + \tau(A(s, 101)) + \tau(A(s, 1100)), \\
& 0 = \tau(A(s, \epsilon)) + \tau(A(s, 11)) + \tau(A(s, 100)) + \tau(A(s, 110)) \\
(2.34) \quad & +\tau(A(s, 1101)),
\end{aligned}$$

for $s = A(i, 0^{2k})$. We find that $(A(i, 0^{48}), E_{48}) = (A(i, 0^{20}), E_{20})$, so that we only have to verify that identities (2.21) through (2.34) hold for $2 \leq k \leq 24$, which turns out to be true. $\square$

In the following lemma, we express M_{2k} , M_{2k+1} , W_{2k} , and W_{2k+1} in terms of M^e , M^o , W^e , and W^o .

Lemma 2.3. *For all integer $k \geq 2$, and $u = 2^{2k-1}$,*

$$\begin{aligned}
M_{2k} &= M^e[:7u] + x^u M^e[:6u] + x^{2u} M^e[:5u] + x^{3u} M^e[:4u] + x^{4u} M^e[:3u] \\
&\quad + x^{6u} M^e[:u] + x^{7u} R^e, \\
W_{2k} &= W^e[:7u] + x^u W^e[:6u] + x^{2u} W^e[:5u] + x^{3u} W^e[:4u] + x^{4u} W^e[:3u] \\
&\quad + x^{6u} W^e[:u] + x^{7u} R^e.
\end{aligned}$$

For all integer $k \geq 2$, and $u = 2^{2k}$,

$$\begin{aligned}
M_{2k+1} &= M^o[:7u] + x^u M^o[:6u] + x^{2u} M^o[:5u] + x^{3u} M^o[:4u] + x^{4u} M^o[:3u] \\
&\quad + x^{6u} M^o[:u] + x^{7u} R^o, \\
W_{2k+1} &= W^o[:7u] + x^u W^o[:6u] + x^{2u} W^o[:5u] + x^{3u} W^o[:4u] + x^{4u} W^o[:3u] \\
&\quad + x^{6u} W^o[:u] + x^{7u} R^o.
\end{aligned}$$

Proof. We call the four identities in Lemma 2.3 also by the name M_{2k} , W_{2k} , M_{2k+1} , and W_{2k+1} . For $n = 2$, the identities can be verified directly. For $n \geq 2$, we claim that

$$M_{2k} \wedge W_{2k} \Rightarrow M_{2k+1} \wedge W_{2k+1},$$

$$M_{2k+1} \wedge W_{2k+1} \Rightarrow M_{2k+2} \wedge W_{2k+2}.$$

We give the proof of

$$M_{2k} \wedge W_{2k} \Rightarrow M_{2k+1},$$

the other ones being similar. Set $u = 2^{2k}$ and $v = 2^{2k-1}$. By definition and induction hypothesis, the left side of identity M_{2k+1} is equal to

$$(2.35) \quad \begin{aligned} W_{2k} M_{2k} = & (W^e[:7v] + x^v W^e[:6v] + x^{2v} W^e[:5v] + x^{3v} W^e[:4v] \\ & + x^{4v} W^e[:3v] + x^{6v} W^e[:v] + x^{7u} R^e) \times (M^e[:7v] + x^v M^e[:6v] \\ & + x^{2v} M^e[:5v] + x^{3v} M^e[:4v] + x^{4v} M^e[:3v] + x^{6v} M^e[:v] + x^{7u} R^e \\ &); \end{aligned}$$

Call this expression *lhs*. Note that both sides of identity M_{2k+1} have the same term of highest degree $x^{14v} R^o$. Therefore we only need to prove that their difference is $O(x^{14v})$. Using Lemma 2.1 it can be seen that the right side of identity M_{2k+1} is congruent, modulo x^{14v} , to

$$\begin{aligned} & W^e[:14v] M^e[:14v] + x^{2v} W^e[:12v] M^e[:12v] + x^{4v} W^e[:10v] M^e[:10v] \\ & + x^{6v} W^e[:8v] M^e[:8v] + x^{8v} W^e[:6v] M^e[:6v] + x^{12v} W^e[:2v] M^e[:2v]. \end{aligned}$$

For all $n \leq 14$, replace the occurrences of $W^e[:n \cdot v]$ and $M^e[:n \cdot v]$ in the above expression by the reduction modulo $x^{n \cdot v}$ of the right side of the corresponding identity in Lemma 2.2 and get a new expression, which we call *rhs*. Define

$$\begin{aligned} X &:= x^v, \\ a_n &:= W^e[n \cdot v : (n+1) \cdot v] / X^n, \\ b_n &:= M^e[n \cdot v : (n+1) \cdot v] / X^n, \\ c &:= R^e. \end{aligned}$$

Using the notation introduced above, we can represent the expressions *lhs* (2.35) and *rhs* as polynomials in $\mathbb{F}_2[a_1, \dots, a_{14}, b_1, \dots, b_{14}, c][X]$. Note that it is not a problem that a_j commutes with b_k while W^e does not commute with M^e , because in the expressions concerned, the products of W^e -terms and M^e -terms are always in the same order. We let the computer do the simplification and check that the difference between these two polynomials is indeed $O(X^{14})$, which completes the proof. $\square$

Proof of Theorem 1.1. We prove the theorem for $\text{CF}(a, b)$; for $\text{CF}(b, a)$, the proof is similar. By Lemma 2.3, we have For all $0 \leq j, k \leq 1$,

$$\begin{aligned} \lim_{n \rightarrow \infty} M_{2n,j,k} &= M_{j,k}^e, \\ \lim_{n \rightarrow \infty} M_{2n+1,j,k} &= M_{j,k}^o, \\ \lim_{n \rightarrow \infty} W_{2n,j,k} &= W_{j,k}^e, \\ \lim_{n \rightarrow \infty} W_{2n+1,j,k} &= W_{j,k}^o. \end{aligned}$$

Let $z = 1/x$. By the convergence theorem and identity (2.2),

$$\text{CF}(a, b) = \frac{M_{0,1}^e(x)}{M_{0,0}^e(x)}.$$

By definition, $\phi(M^e, 0, 1)$ and $\phi(M^e, 0, 0)$ are minimal polynomials of $M_{0,1}^e$ and $M_{0,0}^e$. Therefore

$$P(x, y) = \text{Res}_t (\phi(M^e, 0, 1)(x, t), y^{12}\phi(M^e, 0, 1)(x, t/y))$$

is an annihilating polynomial of $f(x) = M_{0,1}^e/M_{0,0}^e$.

Define

$$Q(x, y) = q_4(x)y^4 + q_3(x)y^3 + q_2(x)y^2 + q_1(x)y + q_0(x),$$

where

$$\begin{aligned} q_0(x) &= x^{28} + x^{25} + x^{22} + x^{21} + x^{19} + x^{18} + x^{16} + x^{12} + x^{11} + x^8 + x^7, \\ q_1(x) &= x^{25} + x^{22} + x^{18} + x^{16} + x^{13} + x^{11} + x^9 + x^8 + x^7 + x^5 + x^4 + x^3, \\ q_2(x) &= x^{22} + x^{18} + x^6 + x^4 + 1, \\ q_3(x) &= x^{25} + x^{22} + x^{18} + x^{16} + x^{13} + x^{11} + x^9 + x^8 + x^7 + x^5 + x^4 + x^3, \\ q_4(x) &= x^{25} + x^{24} + x^{21} + x^{20} + x^{19} + x^{12} + x^{11} + x^7 + x^6. \end{aligned}$$

The polynomial $Q(x, y)$ is the candidate for the minimal polynomial of $f(x)$ found by Padé-Hermite approximation. To prove that it is indeed the minimal polynomial of $f(x)$, we only need to prove that it is an irreducible factor of $P(x, y)$ of multiplicity m and $R(x, y) := P(x, y)/Q(x, y)^m$ is not an annihilating polynomial of $f(x)$. We verify the first point directly. For the second point, we find that when we truncate $f(x)$ to order 216, and substitute it for y in $R(z, y)$, we get a series with valuation smaller than 216, which proves that $R(z, y)$ is not an annihilating polynomial of $f(x)$. Finally, $z^{12}Q(1/z, y)$ is the minimal polynomial of $\text{CF}(a, b) = f(1/z)$. $\square$

3. ANNEXE

All 16 polynomials are of the form

$$p_0(x) + p_3(x)y^3 + p_6(x)y^6 + p_9(x)y^9 + p_{12}(x)y^{12}.$$

The coefficients $p_j(x)$ and the 16 initial terms to determine the solutions uniquely are given below.

For $\phi(M^e, 0, 0)$:

$$\begin{aligned} p_0(x) &= x^{150} + x^{148} + x^{146} + x^{144} + x^{142} + x^{140} + x^{136} + x^{132} + x^{130} + x^{128} \\ &\quad + x^{124} + x^{122} + x^{118} + x^{116} + x^{112} + x^{110} + x^{106} + x^{104} + x^{102} \\ &\quad + x^{100} + x^{98} + x^{84} + x^{82} + x^{78} + x^{76} + x^{74} + x^{66} + x^{64} + x^{60} + x^{58} \\ &\quad + x^{56} + x^{52} + x^{50} + x^{48} + x^{46} + x^{42} + x^{40} + x^{38} + x^{36}, \\ p_3(x) &= x^{142} + x^{130} + x^{124} + x^{120} + x^{116} + x^{112} + x^{108} + x^{104} + x^{96} + x^{94} \\ &\quad + x^{90} + x^{88} + x^{84} + x^{82} + x^{80} + x^{74} + x^{72} + x^{68} + x^{66} + x^{64} + x^{56} \\ &\quad + x^{54} + x^{52} + x^{48} + x^{46} + x^{42} + x^{38} + x^{30} + x^{28} + x^{26} + x^{24} + x^{20}, \\ p_6(x) &= x^{142} + x^{138} + x^{136} + x^{128} + x^{124} + x^{122} + x^{116} + x^{114} + x^{112} + x^{104} \\ &\quad + x^{100} + x^{98} + x^{92} + x^{90} + x^{80} + x^{78} + x^{72} + x^{68} + x^{66} + x^{64} + x^{58} \\ &\quad + x^{54} + x^{52} + x^{50} + x^{48} + x^{46} + x^{44} + x^{38} + x^{34} + x^{24} + x^{22} + x^{16} \\ &\quad + x^{12} + x^{10} + x^6 + 1, \\ p_9(x) &= x^{144} + x^{138} + x^{136} + x^{122} + x^{120} + x^{114} + x^{112} + x^{110} + x^{106} + x^{102} \end{aligned}$$

$$\begin{aligned}
& + x^{100} + x^{96} + x^{90} + x^{86} + x^{84} + x^{82} + x^{78} + x^{74} + x^{66} + x^{48} + x^{46} \\
& + x^{40} + x^{36} + x^{32} + x^{28} + x^{24} + x^{18} + x^{14} + x^{12} + x^{10} + x^8 + x^6, \\
p_{12}(x) &= x^{144} + x^{136} + x^{112} + x^{96} + x^{72} + x^{56} + x^{32} + x^8 + 1,
\end{aligned}$$

and the initial terms are $[1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0, 1, 0]$.

For $\phi(M^e, 0, 1)$:

$$\begin{aligned}
p_0(x) &= x^{147} + x^{145} + x^{144} + x^{141} + x^{140} + x^{139} + x^{135} + x^{133} + x^{132} + x^{131} \\
& + x^{130} + x^{129} + x^{128} + x^{127} + x^{124} + x^{123} + x^{118} + x^{117} + x^{115} \\
& + x^{113} + x^{112} + x^{111} + x^{110} + x^{108} + x^{107} + x^{106} + x^{105} + x^{103} \\
& + x^{102} + x^{97} + x^{96} + x^{95} + x^{94} + x^{92} + x^{91} + x^{86} + x^{84} + x^{82} + x^{81} \\
& + x^{76} + x^{71} + x^{70} + x^{69} + x^{68} + x^{67} + x^{66} + x^{65} + x^{63} + x^{62} + x^{60} \\
& + x^{59} + x^{57} + x^{55} + x^{52} + x^{51} + x^{50} + x^{48} + x^{44} + x^{43} + x^{40} + x^{39}, \\
p_3(x) &= x^{141} + x^{140} + x^{139} + x^{136} + x^{135} + x^{133} + x^{123} + x^{122} + x^{120} + x^{119} \\
& + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{109} + x^{107} + x^{106} + x^{104} \\
& + x^{103} + x^{102} + x^{98} + x^{96} + x^{95} + x^{94} + x^{90} + x^{88} + x^{87} + x^{86} + x^{85} \\
& + x^{84} + x^{83} + x^{82} + x^{78} + x^{76} + x^{75} + x^{74} + x^{70} + x^{69} + x^{67} + x^{61} \\
& + x^{60} + x^{59} + x^{56} + x^{55} + x^{52} + x^{51} + x^{48} + x^{47} + x^{44} + x^{42} + x^{38} \\
& + x^{36} + x^{35} + x^{34} + x^{30} + x^{29} + x^{27}, \\
p_6(x) &= x^{138} + x^{137} + x^{136} + x^{135} + x^{133} + x^{129} + x^{127} + x^{124} + x^{122} + x^{120} \\
& + x^{118} + x^{115} + x^{114} + x^{110} + x^{109} + x^{105} + x^{104} + x^{102} + x^{101} \\
& + x^{97} + x^{95} + x^{94} + x^{93} + x^{91} + x^{87} + x^{86} + x^{78} + x^{77} + x^{76} + x^{75} \\
& + x^{73} + x^{70} + x^{68} + x^{66} + x^{63} + x^{62} + x^{60} + x^{59} + x^{55} + x^{54} + x^{52} \\
& + x^{51} + x^{50} + x^{49} + x^{48} + x^{46} + x^{45} + x^{44} + x^{43} + x^{42} + x^{40} + x^{39} \\
& + x^{36} + x^{33} + x^{31} + x^{27} + x^{25} + x^{22} + x^{19} + x^{18}, \\
p_9(x) &= x^{135} + x^{134} + x^{133} + x^{130} + x^{128} + x^{127} + x^{126} + x^{125} + x^{124} + x^{123} \\
& + x^{122} + x^{119} + x^{115} + x^{114} + x^{112} + x^{109} + x^{99} + x^{98} + x^{97} + x^{94} \\
& + x^{92} + x^{91} + x^{90} + x^{89} + x^{88} + x^{85} + x^{83} + x^{82} + x^{80} + x^{79} + x^{78} \\
& + x^{75} + x^{73} + x^{72} + x^{71} + x^{68} + x^{67} + x^{65} + x^{63} + x^{62} + x^{61} + x^{58} \\
& + x^{56} + x^{53} + x^{49} + x^{48} + x^{47} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{35} \\
& + x^{34} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{25} + x^{23} + x^{22} + x^{21} + x^{19} \\
& + x^{15} + x^{14} + x^{12} + x^9, \\
p_{12}(x) &= x^{132} + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{123} + x^{122} + x^{121} \\
& + x^{119} + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{110} + x^{109} + x^{107} \\
& + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{96} + x^{95} + x^{94} + x^{93} \\
& + x^{91} + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} \\
& + x^{75} + x^{74} + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{64} + x^{52}
\end{aligned}$$

$$\begin{aligned}
& + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} \\
& + x^{37} + x^{36} + x^{32} + x^{31} + x^{30} + x^{29} + x^{27} + x^{26} + x^{25} + x^{23} + x^{22} \\
& + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{11} + x^{10} + x^9 + x^7 + x^6 + x^5 \\
& + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0]$.

For $\phi(M^e, 1, 0)$:

$$\begin{aligned}
p_0(x) &= x^{147} + x^{145} + x^{144} + x^{141} + x^{140} + x^{139} + x^{135} + x^{133} + x^{132} + x^{131} \\
&+ x^{130} + x^{129} + x^{128} + x^{127} + x^{124} + x^{123} + x^{118} + x^{117} + x^{115} \\
&+ x^{113} + x^{112} + x^{111} + x^{110} + x^{108} + x^{107} + x^{106} + x^{105} + x^{103} \\
&+ x^{102} + x^{97} + x^{96} + x^{95} + x^{94} + x^{92} + x^{91} + x^{86} + x^{84} + x^{82} + x^{81} \\
&+ x^{76} + x^{71} + x^{70} + x^{69} + x^{68} + x^{67} + x^{66} + x^{65} + x^{63} + x^{62} + x^{60} \\
&+ x^{59} + x^{57} + x^{55} + x^{52} + x^{51} + x^{50} + x^{48} + x^{44} + x^{43} + x^{40} + x^{39}, \\
p_3(x) &= x^{141} + x^{140} + x^{139} + x^{136} + x^{135} + x^{133} + x^{123} + x^{122} + x^{120} + x^{119} \\
&+ x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{109} + x^{107} + x^{106} + x^{104} \\
&+ x^{103} + x^{102} + x^{98} + x^{96} + x^{95} + x^{94} + x^{90} + x^{88} + x^{87} + x^{86} + x^{85} \\
&+ x^{84} + x^{83} + x^{82} + x^{78} + x^{76} + x^{75} + x^{74} + x^{70} + x^{69} + x^{67} + x^{61} \\
&+ x^{60} + x^{59} + x^{56} + x^{55} + x^{52} + x^{51} + x^{48} + x^{47} + x^{44} + x^{42} + x^{38} \\
&+ x^{36} + x^{35} + x^{34} + x^{30} + x^{29} + x^{27}, \\
p_6(x) &= x^{138} + x^{137} + x^{136} + x^{135} + x^{133} + x^{129} + x^{127} + x^{124} + x^{122} + x^{120} \\
&+ x^{118} + x^{115} + x^{114} + x^{110} + x^{109} + x^{105} + x^{104} + x^{102} + x^{101} \\
&+ x^{97} + x^{95} + x^{94} + x^{93} + x^{91} + x^{87} + x^{86} + x^{78} + x^{77} + x^{76} + x^{75} \\
&+ x^{73} + x^{70} + x^{68} + x^{66} + x^{63} + x^{62} + x^{60} + x^{59} + x^{55} + x^{54} + x^{52} \\
&+ x^{51} + x^{50} + x^{49} + x^{48} + x^{46} + x^{45} + x^{44} + x^{43} + x^{42} + x^{40} + x^{39} \\
&+ x^{36} + x^{33} + x^{31} + x^{27} + x^{25} + x^{22} + x^{19} + x^{18}, \\
p_9(x) &= x^{135} + x^{134} + x^{133} + x^{130} + x^{128} + x^{127} + x^{126} + x^{125} + x^{124} + x^{123} \\
&+ x^{122} + x^{119} + x^{115} + x^{114} + x^{112} + x^{109} + x^{99} + x^{98} + x^{97} + x^{94} \\
&+ x^{92} + x^{91} + x^{90} + x^{89} + x^{88} + x^{85} + x^{83} + x^{82} + x^{80} + x^{79} + x^{78} \\
&+ x^{75} + x^{73} + x^{72} + x^{71} + x^{68} + x^{67} + x^{65} + x^{63} + x^{62} + x^{61} + x^{58} \\
&+ x^{56} + x^{53} + x^{49} + x^{48} + x^{47} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{35} \\
&+ x^{34} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{25} + x^{23} + x^{22} + x^{21} + x^{19} \\
&+ x^{15} + x^{14} + x^{12} + x^9, \\
p_{12}(x) &= x^{132} + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{123} + x^{122} + x^{121} \\
&+ x^{119} + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{110} + x^{109} + x^{107} \\
&+ x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{96} + x^{95} + x^{94} + x^{93} \\
&+ x^{91} + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77}
\end{aligned}$$

$$\begin{aligned}
& + x^{75} + x^{74} + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{64} + x^{52} \\
& + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} \\
& + x^{37} + x^{36} + x^{32} + x^{31} + x^{30} + x^{29} + x^{27} + x^{26} + x^{25} + x^{23} + x^{22} \\
& + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{11} + x^{10} + x^9 + x^7 + x^6 + x^5 \\
& + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0]$.

For $\phi(M^e, 1, 1)$:

$$\begin{aligned}
p_0(x) &= x^{144} + x^{142} + x^{140} + x^{136} + x^{128} + x^{124} + x^{120} + x^{114} + x^{112} + x^{110} \\
&+ x^{106} + x^{104} + x^{98} + x^{94} + x^{88} + x^{84} + x^{82} + x^{78} + x^{74} + x^{70} + x^{64} \\
&+ x^{62} + x^{60} + x^{56} + x^{52} + x^{46} + x^{42}, \\
p_3(x) &= x^{126} + x^{124} + x^{122} + x^{116} + x^{102} + x^{98} + x^{96} + x^{90} + x^{88} + x^{86} + x^{78} \\
&+ x^{68} + x^{66} + x^{64} + x^{60} + x^{52} + x^{50} + x^{48} + x^{42} + x^{36} + x^{34} + x^{32} \\
&+ x^{24} + x^{22} + x^{20} + x^{18}, \\
p_6(x) &= x^{126} + x^{124} + x^{122} + x^{120} + x^{118} + x^{112} + x^{108} + x^{106} + x^{104} + x^{102} \\
&+ x^{90} + x^{88} + x^{86} + x^{84} + x^{78} + x^{74} + x^{70} + x^{66} + x^{64} + x^{62} + x^{54} \\
&+ x^{52} + x^{46} + x^{42} + x^{38} + x^{34} + x^{32} + x^{30} + x^{22} + x^{16} + x^{12} + x^{10} \\
&+ x^8 + x^4 + x^2 + 1, \\
p_9(x) &= x^{120} + x^{118} + x^{116} + x^{110} + x^{108} + x^{98} + x^{96} + x^{88} + x^{86} + x^{84} + x^{82} \\
&+ x^{80} + x^{78} + x^{76} + x^{74} + x^{70} + x^{66} + x^{64} + x^{62} + x^{60} + x^{58} + x^{50} \\
&+ x^{46} + x^{44} + x^{36} + x^{32} + x^{28} + x^{22} + x^{20} + x^{18} + x^{10} + x^6, \\
p_{12}(x) &= x^{120} + x^{118} + x^{116} + x^{114} + x^{112} + x^{104} + x^{102} + x^{100} + x^{98} + x^{96} \\
&+ x^{88} + x^{86} + x^{84} + x^{82} + x^{80} + x^{72} + x^{70} + x^{68} + x^{66} + x^{64} + x^{40} \\
&+ x^{38} + x^{36} + x^{34} + x^{32} + x^{24} + x^{22} + x^{20} + x^{18} + x^{16} + x^8 + x^6 + x^4 \\
&+ x^2 + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0]$.

For $\phi(W^e, 0, 0)$:

$$\begin{aligned}
p_0(x) &= x^{144} + x^{142} + x^{140} + x^{136} + x^{132} + x^{130} + x^{126} + x^{118} + x^{112} + x^{108} \\
&+ x^{106} + x^{104} + x^{100} + x^{94} + x^{84} + x^{82} + x^{76} + x^{72} + x^{64} + x^{62} + x^{56} \\
&+ x^{50} + x^{44} + x^{40} + x^{36}, \\
p_3(x) &= x^{126} + x^{124} + x^{122} + x^{116} + x^{114} + x^{112} + x^{110} + x^{106} + x^{100} + x^{96} \\
&+ x^{94} + x^{90} + x^{88} + x^{84} + x^{82} + x^{78} + x^{76} + x^{74} + x^{70} + x^{68} + x^{62} \\
&+ x^{60} + x^{56} + x^{54} + x^{52} + x^{50} + x^{44} + x^{40} + x^{36} + x^{34} + x^{28} + x^{26} \\
&+ x^{22} + x^{20}, \\
p_6(x) &= x^{126} + x^{124} + x^{122} + x^{120} + x^{118} + x^{114} + x^{110} + x^{106} + x^{102} + x^{98} \\
&+ x^{96} + x^{92} + x^{82} + x^{80} + x^{74} + x^{70} + x^{68} + x^{66} + x^{64} + x^{60} + x^{58}
\end{aligned}$$

$$\begin{aligned}
& + x^{54} + x^{52} + x^{50} + x^{44} + x^{42} + x^{40} + x^{38} + x^{36} + x^{34} + x^{28} + x^{24} \\
& + x^{22} + x^{20} + x^{18} + x^{16} + x^{14} + x^{10} + x^8 + x^4 + x^2 + 1, \\
p_9(x) &= x^{120} + x^{118} + x^{116} + x^{110} + x^{108} + x^{98} + x^{96} + x^{88} + x^{86} + x^{84} + x^{82} \\
& + x^{80} + x^{78} + x^{76} + x^{74} + x^{70} + x^{66} + x^{64} + x^{62} + x^{60} + x^{58} + x^{50} \\
& + x^{46} + x^{44} + x^{36} + x^{32} + x^{28} + x^{22} + x^{20} + x^{18} + x^{10} + x^6, \\
p_{12}(x) &= x^{120} + x^{118} + x^{116} + x^{114} + x^{112} + x^{104} + x^{102} + x^{100} + x^{98} + x^{96} \\
& + x^{88} + x^{86} + x^{84} + x^{82} + x^{80} + x^{72} + x^{70} + x^{68} + x^{66} + x^{64} + x^{40} \\
& + x^{38} + x^{36} + x^{34} + x^{32} + x^{24} + x^{22} + x^{20} + x^{18} + x^{16} + x^8 + x^6 + x^4 \\
& + x^2 + 1,
\end{aligned}$$

and the initial terms are $[1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 1, 0]$.

For $\phi(W^e, 0, 1)$:

$$\begin{aligned}
p_0(x) &= x^{147} + x^{145} + x^{143} + x^{139} + x^{138} + x^{137} + x^{136} + x^{134} + x^{133} + x^{132} \\
& + x^{131} + x^{130} + x^{129} + x^{128} + x^{122} + x^{120} + x^{119} + x^{116} + x^{114} \\
& + x^{112} + x^{109} + x^{108} + x^{107} + x^{106} + x^{105} + x^{102} + x^{98} + x^{96} + x^{95} \\
& + x^{93} + x^{90} + x^{88} + x^{87} + x^{83} + x^{80} + x^{79} + x^{77} + x^{76} + x^{73} + x^{68} \\
& + x^{67} + x^{66} + x^{65} + x^{64} + x^{63} + x^{62} + x^{56} + x^{54} + x^{53} + x^{52} + x^{48} \\
& + x^{45} + x^{43} + x^{40} + x^{39}, \\
p_3(x) &= x^{141} + x^{140} + x^{139} + x^{136} + x^{135} + x^{133} + x^{123} + x^{122} + x^{120} + x^{119} \\
& + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{109} + x^{107} + x^{106} + x^{104} \\
& + x^{103} + x^{102} + x^{98} + x^{96} + x^{95} + x^{94} + x^{90} + x^{88} + x^{87} + x^{86} + x^{85} \\
& + x^{84} + x^{83} + x^{82} + x^{78} + x^{76} + x^{75} + x^{74} + x^{70} + x^{69} + x^{67} + x^{61} \\
& + x^{60} + x^{59} + x^{56} + x^{55} + x^{52} + x^{51} + x^{48} + x^{47} + x^{44} + x^{42} + x^{38} \\
& + x^{36} + x^{35} + x^{34} + x^{30} + x^{29} + x^{27}, \\
p_6(x) &= x^{138} + x^{137} + x^{136} + x^{135} + x^{133} + x^{129} + x^{127} + x^{124} + x^{122} + x^{120} \\
& + x^{118} + x^{115} + x^{114} + x^{110} + x^{109} + x^{105} + x^{104} + x^{102} + x^{101} \\
& + x^{97} + x^{95} + x^{94} + x^{93} + x^{91} + x^{87} + x^{86} + x^{78} + x^{77} + x^{76} + x^{75} \\
& + x^{73} + x^{70} + x^{68} + x^{66} + x^{63} + x^{62} + x^{60} + x^{59} + x^{55} + x^{54} + x^{52} \\
& + x^{51} + x^{50} + x^{49} + x^{48} + x^{46} + x^{45} + x^{44} + x^{43} + x^{42} + x^{40} + x^{39} \\
& + x^{36} + x^{33} + x^{31} + x^{27} + x^{25} + x^{22} + x^{19} + x^{18}, \\
p_9(x) &= x^{135} + x^{134} + x^{133} + x^{130} + x^{128} + x^{127} + x^{126} + x^{125} + x^{124} + x^{123} \\
& + x^{122} + x^{119} + x^{115} + x^{114} + x^{112} + x^{109} + x^{99} + x^{98} + x^{97} + x^{94} \\
& + x^{92} + x^{91} + x^{90} + x^{89} + x^{88} + x^{85} + x^{83} + x^{82} + x^{80} + x^{79} + x^{78} \\
& + x^{75} + x^{73} + x^{72} + x^{71} + x^{68} + x^{67} + x^{65} + x^{63} + x^{62} + x^{61} + x^{58} \\
& + x^{56} + x^{53} + x^{49} + x^{48} + x^{47} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{35} \\
& + x^{34} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{25} + x^{23} + x^{22} + x^{21} + x^{19}
\end{aligned}$$

$$\begin{aligned}
& + x^{15} + x^{14} + x^{12} + x^9, \\
p_{12}(x) = & x^{132} + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{123} + x^{122} + x^{121} \\
& + x^{119} + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{110} + x^{109} + x^{107} \\
& + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{96} + x^{95} + x^{94} + x^{93} \\
& + x^{91} + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} \\
& + x^{75} + x^{74} + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{64} + x^{52} \\
& + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} \\
& + x^{37} + x^{36} + x^{32} + x^{31} + x^{30} + x^{29} + x^{27} + x^{26} + x^{25} + x^{23} + x^{22} \\
& + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{11} + x^{10} + x^9 + x^7 + x^6 + x^5 \\
& + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0]$.

For $\phi(W^e, 1, 0)$:

$$\begin{aligned}
p_0(x) = & x^{147} + x^{145} + x^{143} + x^{139} + x^{138} + x^{137} + x^{136} + x^{134} + x^{133} + x^{132} \\
& + x^{131} + x^{130} + x^{129} + x^{128} + x^{122} + x^{120} + x^{119} + x^{116} + x^{114} \\
& + x^{112} + x^{109} + x^{108} + x^{107} + x^{106} + x^{105} + x^{102} + x^{98} + x^{96} + x^{95} \\
& + x^{93} + x^{90} + x^{88} + x^{87} + x^{83} + x^{80} + x^{79} + x^{77} + x^{76} + x^{73} + x^{68} \\
& + x^{67} + x^{66} + x^{65} + x^{64} + x^{63} + x^{62} + x^{56} + x^{54} + x^{53} + x^{52} + x^{48} \\
& + x^{45} + x^{43} + x^{40} + x^{39}, \\
p_3(x) = & x^{141} + x^{140} + x^{139} + x^{136} + x^{135} + x^{133} + x^{123} + x^{122} + x^{120} + x^{119} \\
& + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{109} + x^{107} + x^{106} + x^{104} \\
& + x^{103} + x^{102} + x^{98} + x^{96} + x^{95} + x^{94} + x^{90} + x^{88} + x^{87} + x^{86} + x^{85} \\
& + x^{84} + x^{83} + x^{82} + x^{78} + x^{76} + x^{75} + x^{74} + x^{70} + x^{69} + x^{67} + x^{61} \\
& + x^{60} + x^{59} + x^{56} + x^{55} + x^{52} + x^{51} + x^{48} + x^{47} + x^{44} + x^{42} + x^{38} \\
& + x^{36} + x^{35} + x^{34} + x^{30} + x^{29} + x^{27}, \\
p_6(x) = & x^{138} + x^{137} + x^{136} + x^{135} + x^{133} + x^{129} + x^{127} + x^{124} + x^{122} + x^{120} \\
& + x^{118} + x^{115} + x^{114} + x^{110} + x^{109} + x^{105} + x^{104} + x^{102} + x^{101} \\
& + x^{97} + x^{95} + x^{94} + x^{93} + x^{91} + x^{87} + x^{86} + x^{78} + x^{77} + x^{76} + x^{75} \\
& + x^{73} + x^{70} + x^{68} + x^{66} + x^{63} + x^{62} + x^{60} + x^{59} + x^{55} + x^{54} + x^{52} \\
& + x^{51} + x^{50} + x^{49} + x^{48} + x^{46} + x^{45} + x^{44} + x^{43} + x^{42} + x^{40} + x^{39} \\
& + x^{36} + x^{33} + x^{31} + x^{27} + x^{25} + x^{22} + x^{19} + x^{18}, \\
p_9(x) = & x^{135} + x^{134} + x^{133} + x^{130} + x^{128} + x^{127} + x^{126} + x^{125} + x^{124} + x^{123} \\
& + x^{122} + x^{119} + x^{115} + x^{114} + x^{112} + x^{109} + x^{99} + x^{98} + x^{97} + x^{94} \\
& + x^{92} + x^{91} + x^{90} + x^{89} + x^{88} + x^{85} + x^{83} + x^{82} + x^{80} + x^{79} + x^{78} \\
& + x^{75} + x^{73} + x^{72} + x^{71} + x^{68} + x^{67} + x^{65} + x^{63} + x^{62} + x^{61} + x^{58} \\
& + x^{56} + x^{53} + x^{49} + x^{48} + x^{47} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{35}
\end{aligned}$$

$$\begin{aligned}
& + x^{34} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{25} + x^{23} + x^{22} + x^{21} + x^{19} \\
& + x^{15} + x^{14} + x^{12} + x^9, \\
p_{12}(x) = & x^{132} + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{123} + x^{122} + x^{121} \\
& + x^{119} + x^{118} + x^{117} + x^{116} + x^{112} + x^{111} + x^{110} + x^{109} + x^{107} \\
& + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{96} + x^{95} + x^{94} + x^{93} \\
& + x^{91} + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} \\
& + x^{75} + x^{74} + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{64} + x^{52} \\
& + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} \\
& + x^{37} + x^{36} + x^{32} + x^{31} + x^{30} + x^{29} + x^{27} + x^{26} + x^{25} + x^{23} + x^{22} \\
& + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{11} + x^{10} + x^9 + x^7 + x^6 + x^5 \\
& + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0]$.

For $\phi(W^e, 1, 1)$:

$$\begin{aligned}
p_0(x) = & x^{150} + x^{148} + x^{146} + x^{142} + x^{138} + x^{136} + x^{126} + x^{120} + x^{118} + x^{116} \\
& + x^{112} + x^{110} + x^{108} + x^{104} + x^{102} + x^{94} + x^{90} + x^{86} + x^{84} + x^{80} \\
& + x^{76} + x^{74} + x^{58} + x^{54} + x^{50} + x^{48} + x^{46} + x^{44} + x^{42}, \\
p_3(x) = & x^{142} + x^{138} + x^{132} + x^{130} + x^{126} + x^{122} + x^{120} + x^{114} + x^{110} + x^{108} \\
& + x^{106} + x^{104} + x^{98} + x^{94} + x^{92} + x^{88} + x^{84} + x^{82} + x^{80} + x^{72} + x^{64} \\
& + x^{62} + x^{56} + x^{46} + x^{42} + x^{40} + x^{34} + x^{30} + x^{28} + x^{18}, \\
p_6(x) = & x^{142} + x^{136} + x^{128} + x^{126} + x^{124} + x^{120} + x^{116} + x^{112} + x^{110} + x^{108} \\
& + x^{106} + x^{104} + x^{88} + x^{84} + x^{80} + x^{78} + x^{74} + x^{72} + x^{68} + x^{64} + x^{62} \\
& + x^{58} + x^{56} + x^{52} + x^{50} + x^{46} + x^{40} + x^{28} + x^{26} + x^{24} + x^{22} + x^{20} \\
& + x^{18} + x^{10} + x^6 + 1, \\
p_9(x) = & x^{144} + x^{138} + x^{136} + x^{122} + x^{120} + x^{114} + x^{112} + x^{110} + x^{106} + x^{102} \\
& + x^{100} + x^{96} + x^{90} + x^{86} + x^{84} + x^{82} + x^{78} + x^{74} + x^{66} + x^{48} + x^{46} \\
& + x^{40} + x^{36} + x^{32} + x^{28} + x^{24} + x^{18} + x^{14} + x^{12} + x^{10} + x^8 + x^6, \\
p_{12}(x) = & x^{144} + x^{136} + x^{112} + x^{96} + x^{72} + x^{56} + x^{32} + x^8 + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 1, 0, 0, 0, 1, 0]$.

For $\phi(M^o, 0, 0)$:

$$\begin{aligned}
p_0(x) = & x^{147} + x^{145} + x^{144} + x^{140} + x^{137} + x^{136} + x^{132} + x^{131} + x^{130} + x^{128} \\
& + x^{127} + x^{125} + x^{123} + x^{119} + x^{118} + x^{117} + x^{115} + x^{113} + x^{111} \\
& + x^{110} + x^{109} + x^{107} + x^{106} + x^{105} + x^{104} + x^{103} + x^{101} + x^{100} \\
& + x^{98} + x^{97} + x^{95} + x^{92} + x^{89} + x^{87} + x^{86} + x^{81} + x^{78} + x^{76} + x^{75} \\
& + x^{74} + x^{71} + x^{70} + x^{68} + x^{67} + x^{66} + x^{64} + x^{63} + x^{62} + x^{61} + x^{59} \\
& + x^{58} + x^{54} + x^{52} + x^{48} + x^{47} + x^{46} + x^{45} + x^{44} + x^{41} + x^{37} + x^{36},
\end{aligned}$$

$$\begin{aligned}
p_3(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{137} + x^{136} + x^{134} + x^{131} + x^{130} + x^{126} \\
& + x^{125} + x^{124} + x^{120} + x^{118} + x^{117} + x^{113} + x^{107} + x^{106} + x^{104} \\
& + x^{101} + x^{100} + x^{95} + x^{93} + x^{90} + x^{88} + x^{87} + x^{85} + x^{83} + x^{79} + x^{78} \\
& + x^{76} + x^{74} + x^{71} + x^{66} + x^{65} + x^{64} + x^{63} + x^{62} + x^{61} + x^{58} + x^{56} \\
& + x^{55} + x^{54} + x^{53} + x^{52} + x^{51} + x^{49} + x^{48} + x^{46} + x^{45} + x^{44} + x^{43} \\
& + x^{42} + x^{35} + x^{34} + x^{29} + x^{25} + x^{24},
\end{aligned}$$

$$\begin{aligned}
p_6(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{137} + x^{136} + x^{134} + x^{131} + x^{130} + x^{129} \\
& + x^{125} + x^{123} + x^{121} + x^{119} + x^{113} + x^{112} + x^{108} + x^{104} + x^{103} \\
& + x^{102} + x^{101} + x^{97} + x^{96} + x^{93} + x^{92} + x^{90} + x^{89} + x^{84} + x^{82} + x^{81} \\
& + x^{79} + x^{78} + x^{77} + x^{73} + x^{72} + x^{71} + x^{69} + x^{68} + x^{65} + x^{64} + x^{63} \\
& + x^{61} + x^{60} + x^{56} + x^{55} + x^{54} + x^{47} + x^{45} + x^{44} + x^{43} + x^{41} + x^{39} \\
& + x^{38} + x^{37} + x^{36} + x^{35} + x^{28} + x^{25} + x^{20} + x^{15} + x^{14} + x^{12} + x^{11} \\
& + x^{10} + x^9 + x^7 + x^6 + x^5 + x^3 + x^2 + x + 1,
\end{aligned}$$

$$\begin{aligned}
p_9(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{132} + x^{124} + x^{123} + x^{122} + x^{121} + x^{119} + x^{118} + x^{117} + x^{116} \\
& + x^{108} + x^{107} + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{92} + x^{91} \\
& + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} + x^{76} \\
& + x^{64} + x^{63} + x^{62} + x^{61} + x^{59} + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{52} \\
& + x^{44} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} + x^{37} + x^{36} + x^{28} + x^{27} + x^{26} \\
& + x^{25} + x^{23} + x^{22} + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{12},
\end{aligned}$$

$$\begin{aligned}
p_{12}(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{124} + x^{112} + x^{111} \\
& + x^{110} + x^{109} + x^{108} + x^{96} + x^{95} + x^{94} + x^{93} + x^{92} + x^{76} + x^{75} + x^{74} \\
& + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{63} + x^{62} + x^{61} + x^{59} \\
& + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} \\
& + x^{44} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{12} + x^{11} + x^{10} + x^9 + x^7 + x^6 \\
& + x^5 + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 0, 1, 0, 0, 1]$.

For $\phi(M^o, 0, 1)$:

$$\begin{aligned}
p_0(x) = & x^{152} + x^{148} + x^{143} + x^{142} + x^{140} + x^{139} + x^{135} + x^{134} + x^{133} + x^{130} \\
& + x^{127} + x^{126} + x^{125} + x^{123} + x^{122} + x^{117} + x^{115} + x^{114} + x^{113} \\
& + x^{112} + x^{109} + x^{106} + x^{104} + x^{103} + x^{102} + x^{99} + x^{98} + x^{96} + x^{94} \\
& + x^{92} + x^{89} + x^{87} + x^{75} + x^{72} + x^{66} + x^{65} + x^{61} + x^{58} + x^{57} + x^{56} \\
& + x^{55} + x^{50} + x^{49} + x^{44} + x^{43} + x^{41} + x^{39},
\end{aligned}$$

$$p_3(x) = x^{131} + x^{128} + x^{124} + x^{123} + x^{122} + x^{120} + x^{119} + x^{117} + x^{116} + x^{112}$$

$$\begin{aligned}
& + x^{108} + x^{106} + x^{103} + x^{101} + x^{99} + x^{98} + x^{95} + x^{93} + x^{91} + x^{90} \\
& + x^{87} + x^{85} + x^{83} + x^{82} + x^{79} + x^{77} + x^{74} + x^{72} + x^{71} + x^{69} + x^{68} \\
& + x^{67} + x^{51} + x^{48} + x^{44} + x^{42} + x^{39} + x^{37} + x^{34} + x^{32} + x^{31} + x^{29} \\
& + x^{28} + x^{27}, \\
p_6(x) &= x^{134} + x^{130} + x^{128} + x^{124} + x^{122} + x^{120} + x^{118} + x^{116} + x^{114} + x^{106} \\
& + x^{104} + x^{98} + x^{96} + x^{92} + x^{88} + x^{86} + x^{74} + x^{70} + x^{68} + x^{66} + x^{64} \\
& + x^{62} + x^{56} + x^{54} + x^{48} + x^{42} + x^{36} + x^{34} + x^{32} + x^{28} + x^{26} + x^{22} \\
& + x^{20} + x^{18}, \\
p_9(x) &= x^{137} + x^{134} + x^{131} + x^{130} + x^{125} + x^{124} + x^{122} + x^{118} + x^{115} + x^{114} \\
& + x^{109} + x^{108} + x^{106} + x^{102} + x^{99} + x^{98} + x^{93} + x^{92} + x^{90} + x^{86} \\
& + x^{83} + x^{82} + x^{77} + x^{76} + x^{74} + x^{73} + x^{57} + x^{54} + x^{51} + x^{50} + x^{45} \\
& + x^{44} + x^{42} + x^{38} + x^{35} + x^{34} + x^{29} + x^{28} + x^{26} + x^{22} + x^{19} + x^{18} \\
& + x^{13} + x^{12} + x^{10} + x^9, \\
p_{12}(x) &= x^{140} + x^{136} + x^{132} + x^{128} + x^{124} + x^{108} + x^{92} + x^{72} + x^{68} + x^{64} \\
& + x^{60} + x^{56} + x^{52} + x^{48} + x^{44} + x^{28} + x^8 + x^4 + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0, 0]$.

For $\phi(M^o, 1, 0)$:

$$\begin{aligned}
p_0(x) &= x^{150} + x^{148} + x^{147} + x^{143} + x^{141} + x^{137} + x^{136} + x^{134} + x^{133} + x^{132} \\
& + x^{128} + x^{127} + x^{125} + x^{123} + x^{122} + x^{120} + x^{118} + x^{115} + x^{114} \\
& + x^{112} + x^{111} + x^{109} + x^{106} + x^{103} + x^{101} + x^{100} + x^{93} + x^{92} + x^{90} \\
& + x^{88} + x^{87} + x^{84} + x^{80} + x^{79} + x^{77} + x^{75} + x^{73} + x^{67} + x^{66} + x^{62} \\
& + x^{61} + x^{60} + x^{56} + x^{54} + x^{52} + x^{51} + x^{49} + x^{46} + x^{45} + x^{41} + x^{39}, \\
p_3(x) &= x^{147} + x^{144} + x^{143} + x^{138} + x^{136} + x^{135} + x^{134} + x^{133} + x^{131} + x^{130} \\
& + x^{129} + x^{128} + x^{126} + x^{125} + x^{124} + x^{121} + x^{118} + x^{116} + x^{113} \\
& + x^{111} + x^{108} + x^{106} + x^{103} + x^{101} + x^{99} + x^{98} + x^{95} + x^{93} + x^{90} \\
& + x^{88} + x^{85} + x^{79} + x^{78} + x^{74} + x^{73} + x^{69} + x^{68} + x^{64} + x^{63} + x^{59} \\
& + x^{58} + x^{54} + x^{53} + x^{49} + x^{48} + x^{44} + x^{43} + x^{39} + x^{38} + x^{34} + x^{33} \\
& + x^{29} + x^{28} + x^{27}, \\
p_6(x) &= x^{150} + x^{144} + x^{138} + x^{136} + x^{126} + x^{124} + x^{120} + x^{118} + x^{114} + x^{108} \\
& + x^{100} + x^{96} + x^{94} + x^{88} + x^{86} + x^{84} + x^{82} + x^{72} + x^{68} + x^{66} + x^{64} \\
& + x^{48} + x^{44} + x^{42} + x^{40} + x^{38} + x^{32} + x^{30} + x^{26} + x^{24} + x^{20} + x^{18}, \\
p_9(x) &= x^{153} + x^{150} + x^{149} + x^{147} + x^{145} + x^{143} + x^{140} + x^{139} + x^{138} + x^{136} \\
& + x^{135} + x^{133} + x^{132} + x^{129} + x^{128} + x^{127} + x^{126} + x^{123} + x^{121} \\
& + x^{120} + x^{119} + x^{117} + x^{116} + x^{113} + x^{112} + x^{111} + x^{110} + x^{107} \\
& + x^{105} + x^{104} + x^{103} + x^{101} + x^{100} + x^{97} + x^{96} + x^{95} + x^{94} + x^{91}
\end{aligned}$$

$$\begin{aligned}
& + x^{88} + x^{87} + x^{86} + x^{84} + x^{83} + x^{80} + x^{78} + x^{76} + x^{74} + x^{70} + x^{69} \\
& + x^{67} + x^{65} + x^{63} + x^{60} + x^{59} + x^{58} + x^{56} + x^{55} + x^{53} + x^{52} + x^{49} \\
& + x^{48} + x^{47} + x^{46} + x^{43} + x^{41} + x^{40} + x^{39} + x^{37} + x^{36} + x^{33} + x^{32} \\
& + x^{31} + x^{30} + x^{27} + x^{24} + x^{23} + x^{22} + x^{20} + x^{19} + x^{16} + x^{14} + x^{12} \\
& + x^{10} + x^9, \\
p_{12}(x) = & x^{156} + x^{148} + x^{140} + x^{132} + x^{120} + x^{116} + x^{112} + x^{104} + x^{100} + x^{96} \\
& + x^{92} + x^{88} + x^{80} + x^{72} + x^{68} + x^{64} + x^{60} + x^{52} + x^{40} + x^{36} + x^{32} \\
& + x^{28} + x^{24} + x^{16} + x^{12} + x^8 + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 1, 1, 1, 0, 1]$.

For $\phi(M^o, 1, 1)$:

$$\begin{aligned}
p_0(x) = & x^{147} + x^{145} + x^{143} + x^{141} + x^{137} + x^{132} + x^{131} + x^{130} + x^{129} + x^{128} \\
& + x^{127} + x^{121} + x^{117} + x^{115} + x^{111} + x^{108} + x^{107} + x^{106} + x^{105} \\
& + x^{104} + x^{102} + x^{101} + x^{94} + x^{89} + x^{87} + x^{85} + x^{84} + x^{81} + x^{75} + x^{73} \\
& + x^{71} + x^{70} + x^{67} + x^{66} + x^{65} + x^{64} + x^{61} + x^{60} + x^{59} + x^{56} + x^{55} \\
& + x^{54} + x^{53} + x^{51} + x^{48} + x^{43} + x^{42}, \\
p_3(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{138} + x^{135} + x^{134} + x^{133} + x^{132} + x^{126} \\
& + x^{125} + x^{124} + x^{119} + x^{118} + x^{117} + x^{116} + x^{114} + x^{113} + x^{111} \\
& + x^{109} + x^{108} + x^{103} + x^{101} + x^{97} + x^{93} + x^{92} + x^{90} + x^{89} + x^{88} \\
& + x^{85} + x^{84} + x^{83} + x^{82} + x^{80} + x^{79} + x^{78} + x^{77} + x^{76} + x^{75} + x^{74} \\
& + x^{72} + x^{71} + x^{69} + x^{67} + x^{63} + x^{62} + x^{61} + x^{57} + x^{54} + x^{47} + x^{46} \\
& + x^{42} + x^{41} + x^{37} + x^{34} + x^{32} + x^{27} + x^{26}, \\
p_6(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{138} + x^{135} + x^{134} + x^{133} + x^{132} + x^{129} \\
& + x^{126} + x^{124} + x^{119} + x^{118} + x^{116} + x^{110} + x^{109} + x^{108} + x^{105} \\
& + x^{103} + x^{93} + x^{92} + x^{85} + x^{84} + x^{83} + x^{80} + x^{79} + x^{76} + x^{75} + x^{67} \\
& + x^{62} + x^{61} + x^{59} + x^{55} + x^{54} + x^{53} + x^{51} + x^{50} + x^{49} + x^{45} + x^{43} \\
& + x^{38} + x^{37} + x^{35} + x^{33} + x^{32} + x^{30} + x^{29} + x^{27} + x^{24} + x^{23} + x^{21} \\
& + x^{19} + x^{18} + x^{16} + x^{13} + x^{11} + x^{10} + x^9 + x^7 + x^6 + x^5 + x^3 + x^2 + x \\
& + 1, \\
p_9(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{132} + x^{124} + x^{123} + x^{122} + x^{121} + x^{119} + x^{118} + x^{117} + x^{116} \\
& + x^{108} + x^{107} + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{92} + x^{91} \\
& + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} + x^{76} \\
& + x^{64} + x^{63} + x^{62} + x^{61} + x^{59} + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{52} \\
& + x^{44} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} + x^{37} + x^{36} + x^{28} + x^{27} + x^{26} \\
& + x^{25} + x^{23} + x^{22} + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{12},
\end{aligned}$$

$$\begin{aligned}
p_{12}(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{124} + x^{112} + x^{111} \\
& + x^{110} + x^{109} + x^{108} + x^{96} + x^{95} + x^{94} + x^{93} + x^{92} + x^{76} + x^{75} + x^{74} \\
& + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{63} + x^{62} + x^{61} + x^{59} \\
& + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} \\
& + x^{44} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{12} + x^{11} + x^{10} + x^9 + x^7 + x^6 \\
& + x^5 + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 0, 1]$.

For $\phi(W^o, 0, 0)$:

$$\begin{aligned}
p_0(x) = & x^{147} + x^{145} + x^{144} + x^{140} + x^{137} + x^{136} + x^{132} + x^{131} + x^{130} + x^{128} \\
& + x^{127} + x^{125} + x^{123} + x^{119} + x^{118} + x^{117} + x^{115} + x^{113} + x^{111} \\
& + x^{110} + x^{109} + x^{107} + x^{106} + x^{105} + x^{104} + x^{103} + x^{101} + x^{100} \\
& + x^{98} + x^{97} + x^{95} + x^{92} + x^{89} + x^{87} + x^{86} + x^{81} + x^{78} + x^{76} + x^{75} \\
& + x^{74} + x^{71} + x^{70} + x^{68} + x^{67} + x^{66} + x^{64} + x^{63} + x^{62} + x^{61} + x^{59} \\
& + x^{58} + x^{54} + x^{52} + x^{48} + x^{47} + x^{46} + x^{45} + x^{44} + x^{41} + x^{37} + x^{36}, \\
p_3(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{137} + x^{136} + x^{134} + x^{131} + x^{130} + x^{126} \\
& + x^{125} + x^{124} + x^{120} + x^{118} + x^{117} + x^{113} + x^{107} + x^{106} + x^{104} \\
& + x^{101} + x^{100} + x^{95} + x^{93} + x^{90} + x^{88} + x^{87} + x^{85} + x^{83} + x^{79} + x^{78} \\
& + x^{76} + x^{74} + x^{71} + x^{66} + x^{65} + x^{64} + x^{63} + x^{62} + x^{61} + x^{58} + x^{56} \\
& + x^{55} + x^{54} + x^{53} + x^{52} + x^{51} + x^{49} + x^{48} + x^{46} + x^{45} + x^{44} + x^{43} \\
& + x^{42} + x^{35} + x^{34} + x^{29} + x^{25} + x^{24}, \\
p_6(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{137} + x^{136} + x^{134} + x^{131} + x^{130} + x^{129} \\
& + x^{125} + x^{123} + x^{121} + x^{119} + x^{113} + x^{112} + x^{108} + x^{104} + x^{103} \\
& + x^{102} + x^{101} + x^{97} + x^{96} + x^{93} + x^{92} + x^{90} + x^{89} + x^{84} + x^{82} + x^{81} \\
& + x^{79} + x^{78} + x^{77} + x^{73} + x^{72} + x^{71} + x^{69} + x^{68} + x^{65} + x^{64} + x^{63} \\
& + x^{61} + x^{60} + x^{56} + x^{55} + x^{54} + x^{47} + x^{45} + x^{44} + x^{43} + x^{41} + x^{39} \\
& + x^{38} + x^{37} + x^{36} + x^{35} + x^{28} + x^{25} + x^{20} + x^{15} + x^{14} + x^{12} + x^{11} \\
& + x^{10} + x^9 + x^7 + x^6 + x^5 + x^3 + x^2 + x + 1, \\
p_9(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{132} + x^{124} + x^{123} + x^{122} + x^{121} + x^{119} + x^{118} + x^{117} + x^{116} \\
& + x^{108} + x^{107} + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{92} + x^{91} \\
& + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} + x^{76} \\
& + x^{64} + x^{63} + x^{62} + x^{61} + x^{59} + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{52} \\
& + x^{44} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} + x^{37} + x^{36} + x^{28} + x^{27} + x^{26} \\
& + x^{25} + x^{23} + x^{22} + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{12},
\end{aligned}$$

$$\begin{aligned}
p_{12}(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{124} + x^{112} + x^{111} \\
& + x^{110} + x^{109} + x^{108} + x^{96} + x^{95} + x^{94} + x^{93} + x^{92} + x^{76} + x^{75} + x^{74} \\
& + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{63} + x^{62} + x^{61} + x^{59} \\
& + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} \\
& + x^{44} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{12} + x^{11} + x^{10} + x^9 + x^7 + x^6 \\
& + x^5 + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 0, 1, 0, 0, 1]$.

For $\phi(W^o, 0, 1)$:

$$\begin{aligned}
p_0(x) = & x^{150} + x^{148} + x^{147} + x^{143} + x^{141} + x^{137} + x^{136} + x^{134} + x^{133} + x^{132} \\
& + x^{128} + x^{127} + x^{125} + x^{123} + x^{122} + x^{120} + x^{118} + x^{115} + x^{114} \\
& + x^{112} + x^{111} + x^{109} + x^{106} + x^{103} + x^{101} + x^{100} + x^{93} + x^{92} + x^{90} \\
& + x^{88} + x^{87} + x^{84} + x^{80} + x^{79} + x^{77} + x^{75} + x^{73} + x^{67} + x^{66} + x^{62} \\
& + x^{61} + x^{60} + x^{56} + x^{54} + x^{52} + x^{51} + x^{49} + x^{46} + x^{45} + x^{41} + x^{39}, \\
p_3(x) = & x^{147} + x^{144} + x^{143} + x^{138} + x^{136} + x^{135} + x^{134} + x^{133} + x^{131} + x^{130} \\
& + x^{129} + x^{128} + x^{126} + x^{125} + x^{124} + x^{121} + x^{118} + x^{116} + x^{113} \\
& + x^{111} + x^{108} + x^{106} + x^{103} + x^{101} + x^{99} + x^{98} + x^{95} + x^{93} + x^{90} \\
& + x^{88} + x^{85} + x^{79} + x^{78} + x^{74} + x^{73} + x^{69} + x^{68} + x^{64} + x^{63} + x^{59} \\
& + x^{58} + x^{54} + x^{53} + x^{49} + x^{48} + x^{44} + x^{43} + x^{39} + x^{38} + x^{34} + x^{33} \\
& + x^{29} + x^{28} + x^{27}, \\
p_6(x) = & x^{150} + x^{144} + x^{138} + x^{136} + x^{126} + x^{124} + x^{120} + x^{118} + x^{114} + x^{108} \\
& + x^{100} + x^{96} + x^{94} + x^{88} + x^{86} + x^{84} + x^{82} + x^{72} + x^{68} + x^{66} + x^{64} \\
& + x^{48} + x^{44} + x^{42} + x^{40} + x^{38} + x^{32} + x^{30} + x^{26} + x^{24} + x^{20} + x^{18}, \\
p_9(x) = & x^{153} + x^{150} + x^{149} + x^{147} + x^{145} + x^{143} + x^{140} + x^{139} + x^{138} + x^{136} \\
& + x^{135} + x^{133} + x^{132} + x^{129} + x^{128} + x^{127} + x^{126} + x^{123} + x^{121} \\
& + x^{120} + x^{119} + x^{117} + x^{116} + x^{113} + x^{112} + x^{111} + x^{110} + x^{107} \\
& + x^{105} + x^{104} + x^{103} + x^{101} + x^{100} + x^{97} + x^{96} + x^{95} + x^{94} + x^{91} \\
& + x^{88} + x^{87} + x^{86} + x^{84} + x^{83} + x^{80} + x^{78} + x^{76} + x^{74} + x^{70} + x^{69} \\
& + x^{67} + x^{65} + x^{63} + x^{60} + x^{59} + x^{58} + x^{56} + x^{55} + x^{53} + x^{52} + x^{49} \\
& + x^{48} + x^{47} + x^{46} + x^{43} + x^{41} + x^{40} + x^{39} + x^{37} + x^{36} + x^{33} + x^{32} \\
& + x^{31} + x^{30} + x^{27} + x^{24} + x^{23} + x^{22} + x^{20} + x^{19} + x^{16} + x^{14} + x^{12} \\
& + x^{10} + x^9, \\
p_{12}(x) = & x^{156} + x^{148} + x^{140} + x^{132} + x^{120} + x^{116} + x^{112} + x^{104} + x^{100} + x^{96} \\
& + x^{92} + x^{88} + x^{80} + x^{72} + x^{68} + x^{64} + x^{60} + x^{52} + x^{40} + x^{36} + x^{32} \\
& + x^{28} + x^{24} + x^{16} + x^{12} + x^8 + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 1, 1, 1, 0, 1]$.

For $\phi(W^o, 1, 0)$:

$$\begin{aligned}
p_0(x) &= x^{152} + x^{148} + x^{143} + x^{142} + x^{140} + x^{139} + x^{135} + x^{134} + x^{133} + x^{130} \\
&\quad + x^{127} + x^{126} + x^{125} + x^{123} + x^{122} + x^{117} + x^{115} + x^{114} + x^{113} \\
&\quad + x^{112} + x^{109} + x^{106} + x^{104} + x^{103} + x^{102} + x^{99} + x^{98} + x^{96} + x^{94} \\
&\quad + x^{92} + x^{89} + x^{87} + x^{75} + x^{72} + x^{66} + x^{65} + x^{61} + x^{58} + x^{57} + x^{56} \\
&\quad + x^{55} + x^{50} + x^{49} + x^{44} + x^{43} + x^{41} + x^{39}, \\
p_3(x) &= x^{131} + x^{128} + x^{124} + x^{123} + x^{122} + x^{120} + x^{119} + x^{117} + x^{116} + x^{112} \\
&\quad + x^{108} + x^{106} + x^{103} + x^{101} + x^{99} + x^{98} + x^{95} + x^{93} + x^{91} + x^{90} \\
&\quad + x^{87} + x^{85} + x^{83} + x^{82} + x^{79} + x^{77} + x^{74} + x^{72} + x^{71} + x^{69} + x^{68} \\
&\quad + x^{67} + x^{51} + x^{48} + x^{44} + x^{42} + x^{39} + x^{37} + x^{34} + x^{32} + x^{31} + x^{29} \\
&\quad + x^{28} + x^{27}, \\
p_6(x) &= x^{134} + x^{130} + x^{128} + x^{124} + x^{122} + x^{120} + x^{118} + x^{116} + x^{114} + x^{106} \\
&\quad + x^{104} + x^{98} + x^{96} + x^{92} + x^{88} + x^{86} + x^{74} + x^{70} + x^{68} + x^{66} + x^{64} \\
&\quad + x^{62} + x^{56} + x^{54} + x^{48} + x^{42} + x^{36} + x^{34} + x^{32} + x^{28} + x^{26} + x^{22} \\
&\quad + x^{20} + x^{18}, \\
p_9(x) &= x^{137} + x^{134} + x^{131} + x^{130} + x^{125} + x^{124} + x^{122} + x^{118} + x^{115} + x^{114} \\
&\quad + x^{109} + x^{108} + x^{106} + x^{102} + x^{99} + x^{98} + x^{93} + x^{92} + x^{90} + x^{86} \\
&\quad + x^{83} + x^{82} + x^{77} + x^{76} + x^{74} + x^{73} + x^{57} + x^{54} + x^{51} + x^{50} + x^{45} \\
&\quad + x^{44} + x^{42} + x^{38} + x^{35} + x^{34} + x^{29} + x^{28} + x^{26} + x^{22} + x^{19} + x^{18} \\
&\quad + x^{13} + x^{12} + x^{10} + x^9, \\
p_{12}(x) &= x^{140} + x^{136} + x^{132} + x^{128} + x^{124} + x^{108} + x^{92} + x^{72} + x^{68} + x^{64} \\
&\quad + x^{60} + x^{56} + x^{52} + x^{48} + x^{44} + x^{28} + x^8 + x^4 + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0, 0]$.

For $\phi(W^o, 1, 1)$:

$$\begin{aligned}
p_0(x) &= x^{147} + x^{145} + x^{143} + x^{141} + x^{137} + x^{132} + x^{131} + x^{130} + x^{129} + x^{128} \\
&\quad + x^{127} + x^{121} + x^{117} + x^{115} + x^{111} + x^{108} + x^{107} + x^{106} + x^{105} \\
&\quad + x^{104} + x^{102} + x^{101} + x^{94} + x^{89} + x^{87} + x^{85} + x^{84} + x^{81} + x^{75} + x^{73} \\
&\quad + x^{71} + x^{70} + x^{67} + x^{66} + x^{65} + x^{64} + x^{61} + x^{60} + x^{59} + x^{56} + x^{55} \\
&\quad + x^{54} + x^{53} + x^{51} + x^{48} + x^{43} + x^{42}, \\
p_3(x) &= x^{144} + x^{143} + x^{142} + x^{139} + x^{138} + x^{135} + x^{134} + x^{133} + x^{132} + x^{126} \\
&\quad + x^{125} + x^{124} + x^{119} + x^{118} + x^{117} + x^{116} + x^{114} + x^{113} + x^{111} \\
&\quad + x^{109} + x^{108} + x^{103} + x^{101} + x^{97} + x^{93} + x^{92} + x^{90} + x^{89} + x^{88} \\
&\quad + x^{85} + x^{84} + x^{83} + x^{82} + x^{80} + x^{79} + x^{78} + x^{77} + x^{76} + x^{75} + x^{74} \\
&\quad + x^{72} + x^{71} + x^{69} + x^{67} + x^{63} + x^{62} + x^{61} + x^{57} + x^{54} + x^{47} + x^{46}
\end{aligned}$$

$$\begin{aligned}
& + x^{42} + x^{41} + x^{37} + x^{34} + x^{32} + x^{27} + x^{26}, \\
p_6(x) = & x^{144} + x^{143} + x^{142} + x^{139} + x^{138} + x^{135} + x^{134} + x^{133} + x^{132} + x^{129} \\
& + x^{126} + x^{124} + x^{119} + x^{118} + x^{116} + x^{110} + x^{109} + x^{108} + x^{105} \\
& + x^{103} + x^{93} + x^{92} + x^{85} + x^{84} + x^{83} + x^{80} + x^{79} + x^{76} + x^{75} + x^{67} \\
& + x^{62} + x^{61} + x^{59} + x^{55} + x^{54} + x^{53} + x^{51} + x^{50} + x^{49} + x^{45} + x^{43} \\
& + x^{38} + x^{37} + x^{35} + x^{33} + x^{32} + x^{30} + x^{29} + x^{27} + x^{24} + x^{23} + x^{21} \\
& + x^{19} + x^{18} + x^{16} + x^{13} + x^{11} + x^{10} + x^9 + x^7 + x^6 + x^5 + x^3 + x^2 + x \\
& + 1, \\
p_9(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{132} + x^{124} + x^{123} + x^{122} + x^{121} + x^{119} + x^{118} + x^{117} + x^{116} \\
& + x^{108} + x^{107} + x^{106} + x^{105} + x^{103} + x^{102} + x^{101} + x^{100} + x^{92} + x^{91} \\
& + x^{90} + x^{89} + x^{87} + x^{86} + x^{85} + x^{84} + x^{80} + x^{79} + x^{78} + x^{77} + x^{76} \\
& + x^{64} + x^{63} + x^{62} + x^{61} + x^{59} + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{52} \\
& + x^{44} + x^{43} + x^{42} + x^{41} + x^{39} + x^{38} + x^{37} + x^{36} + x^{28} + x^{27} + x^{26} \\
& + x^{25} + x^{23} + x^{22} + x^{21} + x^{20} + x^{16} + x^{15} + x^{14} + x^{13} + x^{12}, \\
p_{12}(x) = & x^{144} + x^{143} + x^{142} + x^{141} + x^{139} + x^{138} + x^{137} + x^{135} + x^{134} + x^{133} \\
& + x^{131} + x^{130} + x^{129} + x^{127} + x^{126} + x^{125} + x^{124} + x^{112} + x^{111} \\
& + x^{110} + x^{109} + x^{108} + x^{96} + x^{95} + x^{94} + x^{93} + x^{92} + x^{76} + x^{75} + x^{74} \\
& + x^{73} + x^{71} + x^{70} + x^{69} + x^{67} + x^{66} + x^{65} + x^{63} + x^{62} + x^{61} + x^{59} \\
& + x^{58} + x^{57} + x^{55} + x^{54} + x^{53} + x^{51} + x^{50} + x^{49} + x^{47} + x^{46} + x^{45} \\
& + x^{44} + x^{32} + x^{31} + x^{30} + x^{29} + x^{28} + x^{12} + x^{11} + x^{10} + x^9 + x^7 + x^6 \\
& + x^5 + x^3 + x^2 + x + 1,
\end{aligned}$$

and the initial terms are $[0, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 0, 1]$.

Below is the transition function and output function of an 2-automaton that generates $T = M_{0,0}^o$:

Transition function $(n, j) \mapsto \delta(n, j)$ ($\Lambda(n) := [\delta(n, 0), \delta(n, 1)]$):

n	$\Lambda(n)$	n	$\Lambda(n)$	n	$\Lambda(n)$	n	$\Lambda(n)$
0	[1, 2]	1433	[2327, 53]	2866	[2109, 2149]	4299	[5057, 5018]
1	[3, 4]	1434	[2328, 822]	2867	[4039, 2489]	4300	[5058, 1567]
2	[5, 6]	1435	[2329, 752]	2868	[899, 1996]	4301	[5059, 5060]
3	[7, 8]	1436	[2330, 1993]	2869	[4040, 210]	4302	[5061, 5062]
4	[9, 10]	1437	[1874, 2331]	2870	[4041, 3833]	4303	[5063, 4523]
5	[11, 12]	1438	[2332, 627]	2871	[4042, 2335]	4304	[3496, 5064]
6	[13, 14]	1439	[13, 2333]	2872	[1789, 3925]	4305	[5065, 1296]
7	[15, 16]	1440	[2334, 2335]	2873	[4043, 2330]	4306	[3208, 5066]
8	[17, 18]	1441	[2336, 2337]	2874	[4044, 208]	4307	[5015, 1219]
9	[19, 20]	1442	[2338, 620]	2875	[4045, 4046]	4308	[5067, 3305]
10	[21, 22]	1443	[2339, 1703]	2876	[4047, 2377]	4309	[5068, 281]

11	[23, 24]	1444	[2174, 34]	2877	[4048, 2024]	4310	[4547, 4968]
12	[25, 26]	1445	[2340, 1825]	2878	[1788, 871]	4311	[5069, 5070]
13	[27, 28]	1446	[2341, 2342]	2879	[4049, 1653]	4312	[1052, 1186]
14	[29, 30]	1447	[715, 621]	2880	[522, 3837]	4313	[2666, 4630]
15	[31, 32]	1448	[2343, 38]	2881	[3869, 1743]	4314	[3385, 2825]
16	[33, 34]	1449	[2344, 2345]	2882	[851, 1914]	4315	[5071, 3639]
17	[35, 36]	1450	[2346, 2347]	2883	[4050, 732]	4316	[5072, 2650]
18	[37, 38]	1451	[1860, 2348]	2884	[1751, 4051]	4317	[5073, 4529]
19	[39, 40]	1452	[2349, 2350]	2885	[792, 3811]	4318	[5074, 3340]
20	[41, 42]	1453	[2351, 1745]	2886	[1895, 12]	4319	[3510, 4742]
21	[43, 44]	1454	[2352, 572]	2887	[625, 1754]	4320	[5075, 1333]
22	[45, 46]	1455	[1993, 2353]	2888	[4052, 4053]	4321	[5076, 3416]
23	[47, 48]	1456	[1946, 2354]	2889	[1955, 1933]	4322	[5077, 3496]
24	[49, 50]	1457	[2355, 615]	2890	[2300, 2030]	4323	[5078, 3580]
25	[51, 52]	1458	[1782, 536]	2891	[782, 740]	4324	[5079, 3322]
26	[53, 54]	1459	[2356, 744]	2892	[4054, 2029]	4325	[1248, 1176]
27	[55, 56]	1460	[2029, 1750]	2893	[4055, 1972]	4326	[3130, 1215]
28	[57, 58]	1461	[1637, 2357]	2894	[1748, 4056]	4327	[2548, 5080]
29	[59, 60]	1462	[561, 501]	2895	[176, 1723]	4328	[5081, 470]
30	[61, 62]	1463	[649, 1969]	2896	[4057, 668]	4329	[3590, 4947]
31	[63, 64]	1464	[2358, 1699]	2897	[4058, 4059]	4330	[1567, 4962]
32	[65, 66]	1465	[714, 2359]	2898	[2313, 4060]	4331	[5082, 2990]
33	[67, 68]	1466	[2360, 1792]	2899	[4061, 250]	4332	[1500, 4704]
34	[69, 70]	1467	[2293, 2361]	2900	[709, 241]	4333	[5083, 3097]
35	[71, 72]	1468	[2060, 825]	2901	[4062, 2475]	4334	[2715, 1607]
36	[73, 74]	1469	[689, 2362]	2902	[4063, 4064]	4335	[2824, 3744]
37	[75, 76]	1470	[2363, 2364]	2903	[4065, 1914]	4336	[5084, 5085]
38	[77, 78]	1471	[2365, 2366]	2904	[4066, 625]	4337	[2874, 5086]
39	[79, 80]	1472	[2367, 2368]	2905	[1655, 2350]	4338	[3562, 2631]
40	[81, 82]	1473	[2369, 1984]	2906	[4067, 2282]	4339	[5087, 5088]
41	[83, 84]	1474	[2370, 2371]	2907	[817, 1644]	4340	[1320, 2870]
42	[85, 86]	1475	[2372, 2373]	2908	[4068, 857]	4341	[5089, 4829]
43	[87, 88]	1476	[2374, 1682]	2909	[4069, 2317]	4342	[5090, 5091]
44	[89, 90]	1477	[2375, 2376]	2910	[4070, 2128]	4343	[5092, 5093]
45	[91, 92]	1478	[671, 1932]	2911	[3912, 1897]	4344	[3708, 1009]
46	[93, 94]	1479	[2377, 1734]	2912	[3806, 1778]	4345	[5094, 4822]
47	[95, 96]	1480	[2378, 2379]	2913	[4071, 4072]	4346	[5095, 3026]
48	[97, 98]	1481	[2380, 2381]	2914	[4073, 3891]	4347	[5093, 309]
49	[99, 100]	1482	[2382, 1976]	2915	[2438, 1916]	4348	[5096, 3211]
50	[101, 102]	1483	[131, 2383]	2916	[4074, 2437]	4349	[5097, 5098]
51	[103, 104]	1484	[2350, 2277]	2917	[893, 872]	4350	[5099, 337]
52	[105, 106]	1485	[2384, 2385]	2918	[4075, 593]	4351	[5100, 1245]
53	[107, 108]	1486	[773, 579]	2919	[718, 2277]	4352	[5101, 3162]
54	[109, 110]	1487	[2386, 129]	2920	[4076, 575]	4353	[5102, 3337]

55	[111, 112]	1488	[2387, 549]	2921	[4077, 2293]	4354	[116, 1575]
56	[113, 114]	1489	[2388, 2250]	2922	[4078, 1693]	4355	[3498, 5103]
57	[115, 116]	1490	[129, 576]	2923	[3909, 1744]	4356	[2850, 3034]
58	[117, 118]	1491	[833, 2389]	2924	[2278, 792]	4357	[5104, 1098]
59	[119, 120]	1492	[2390, 614]	2925	[4079, 1695]	4358	[431, 2582]
60	[121, 122]	1493	[2391, 2392]	2926	[870, 2309]	4359	[5105, 5106]
61	[123, 124]	1494	[2393, 1952]	2927	[795, 3801]	4360	[4560, 5107]
62	[125, 126]	1495	[2394, 2208]	2928	[4080, 1649]	4361	[5108, 5109]
63	[127, 128]	1496	[2395, 2396]	2929	[2169, 2215]	4362	[5110, 5111]
64	[129, 130]	1497	[2108, 2397]	2930	[1697, 1690]	4363	[5112, 1465]
65	[131, 132]	1498	[2110, 520]	2931	[725, 742]	4364	[5113, 5114]
66	[133, 134]	1499	[607, 2398]	2932	[2222, 563]	4365	[5115, 5116]
67	[135, 136]	1500	[2207, 2361]	2933	[4081, 2377]	4366	[1261, 3028]
68	[137, 138]	1501	[657, 2399]	2934	[504, 4082]	4367	[1119, 3038]
69	[139, 140]	1502	[2400, 238]	2935	[4083, 1690]	4368	[5117, 5118]
70	[141, 142]	1503	[2401, 2024]	2936	[3934, 1805]	4369	[3524, 5119]
71	[143, 144]	1504	[2112, 2252]	2937	[4084, 4085]	4370	[2725, 388]
72	[145, 146]	1505	[2402, 2403]	2938	[4086, 715]	4371	[1496, 5120]
73	[147, 148]	1506	[1889, 2315]	2939	[1813, 3958]	4372	[4756, 1399]
74	[149, 150]	1507	[2404, 1709]	2940	[3981, 4087]	4373	[1048, 3481]
75	[151, 152]	1508	[1746, 2405]	2941	[4088, 2387]	4374	[1076, 5121]
76	[153, 154]	1509	[1991, 1669]	2942	[187, 1899]	4375	[5122, 3341]
77	[155, 156]	1510	[2406, 793]	2943	[4089, 4090]	4376	[5123, 1200]
78	[157, 158]	1511	[2407, 2024]	2944	[4091, 4092]	4377	[4925, 3466]
79	[159, 160]	1512	[2008, 2389]	2945	[4093, 2390]	4378	[1007, 3757]
80	[161, 162]	1513	[2408, 1931]	2946	[623, 2241]	4379	[5124, 5125]
81	[163, 164]	1514	[1655, 718]	2947	[4094, 2153]	4380	[3249, 3145]
82	[165, 166]	1515	[2409, 1632]	2948	[3812, 2232]	4381	[5126, 3442]
83	[167, 168]	1516	[2410, 1802]	2949	[4095, 1744]	4382	[5127, 937]
84	[169, 170]	1517	[631, 2411]	2950	[4096, 1692]	4383	[5128, 3234]
85	[171, 172]	1518	[140, 1837]	2951	[4097, 4098]	4384	[4777, 2773]
86	[173, 174]	1519	[888, 190]	2952	[4099, 2398]	4385	[2514, 5129]
87	[175, 176]	1520	[1952, 2412]	2953	[2395, 1794]	4386	[5130, 4975]
88	[177, 178]	1521	[2139, 833]	2954	[4100, 878]	4387	[5131, 4792]
89	[179, 180]	1522	[2413, 1739]	2955	[3882, 3923]	4388	[3047, 1373]
90	[181, 182]	1523	[2414, 2415]	2956	[210, 2158]	4389	[3648, 2737]
91	[183, 184]	1524	[2044, 502]	2957	[4101, 2353]	4390	[5132, 5133]
92	[185, 186]	1525	[883, 2416]	2958	[2256, 152]	4391	[3578, 5134]
93	[187, 188]	1526	[2417, 2418]	2959	[2038, 4102]	4392	[5135, 2843]
94	[189, 190]	1527	[161, 219]	2960	[2181, 4082]	4393	[4987, 3483]
95	[191, 192]	1528	[2419, 2047]	2961	[4103, 3958]	4394	[5136, 3009]
96	[193, 194]	1529	[58, 233]	2962	[2170, 2264]	4395	[3720, 1088]
97	[195, 196]	1530	[2420, 2421]	2963	[4104, 613]	4396	[5137, 2822]
98	[197, 198]	1531	[2223, 2422]	2964	[4105, 203]	4397	[5133, 4791]

99	[199, 200]	1532	[2423, 726]	2965	[3855, 1658]	4398	[4946, 2649]
100	[8, 201]	1533	[2424, 1814]	2966	[4106, 1883]	4399	[5138, 1012]
101	[202, 203]	1534	[2425, 2426]	2967	[2174, 4031]	4400	[484, 5139]
102	[204, 205]	1535	[2427, 223]	2968	[879, 3956]	4401	[5140, 4915]
103	[206, 207]	1536	[48, 2428]	2969	[1696, 2323]	4402	[5141, 1454]
104	[208, 209]	1537	[2429, 2254]	2970	[4107, 3852]	4403	[5142, 94]
105	[210, 211]	1538	[2089, 2430]	2971	[2219, 3918]	4404	[5143, 5144]
106	[212, 213]	1539	[2431, 1892]	2972	[4108, 695]	4405	[5145, 1226]
107	[214, 215]	1540	[2432, 2315]	2973	[4109, 523]	4406	[5146, 3180]
108	[216, 217]	1541	[2433, 153]	2974	[4077, 2207]	4407	[4977, 1540]
109	[218, 219]	1542	[2434, 56]	2975	[2151, 556]	4408	[2760, 1120]
110	[220, 41]	1543	[2435, 2182]	2976	[4110, 631]	4409	[3119, 925]
111	[181, 221]	1544	[2436, 2437]	2977	[2058, 1742]	4410	[5147, 5148]
112	[222, 223]	1545	[2438, 1682]	2978	[2022, 1661]	4411	[3588, 5149]
113	[224, 225]	1546	[2261, 2051]	2979	[4111, 1735]	4412	[5150, 5151]
114	[226, 227]	1547	[2439, 2440]	2980	[4112, 218]	4413	[1524, 1160]
115	[228, 229]	1548	[2003, 2347]	2981	[4113, 843]	4414	[4803, 3075]
116	[230, 231]	1549	[2441, 1986]	2982	[1633, 4051]	4415	[1025, 3384]
117	[232, 233]	1550	[2158, 2442]	2983	[4114, 819]	4416	[1212, 3163]
118	[234, 235]	1551	[238, 2392]	2984	[726, 4115]	4417	[2848, 447]
119	[236, 237]	1552	[2443, 2444]	2985	[4116, 1748]	4418	[470, 3199]
120	[238, 239]	1553	[2445, 2426]	2986	[4117, 4118]	4419	[3526, 4619]
121	[240, 241]	1554	[2186, 1655]	2987	[1645, 3864]	4420	[5152, 5153]
122	[242, 243]	1555	[2370, 2446]	2988	[1741, 4119]	4421	[5154, 5155]
123	[244, 245]	1556	[8, 1942]	2989	[4120, 2348]	4422	[1435, 2749]
124	[246, 247]	1557	[10, 1642]	2990	[2358, 804]	4423	[1533, 2797]
125	[248, 249]	1558	[2447, 2448]	2991	[495, 1960]	4424	[476, 2967]
126	[202, 250]	1559	[2449, 502]	2992	[733, 1662]	4425	[3240, 1001]
127	[251, 252]	1560	[2394, 2019]	2993	[4121, 1644]	4426	[5156, 5108]
128	[253, 254]	1561	[44, 2392]	2994	[4122, 4123]	4427	[5157, 5158]
129	[255, 256]	1562	[2450, 1667]	2995	[4124, 221]	4428	[4786, 5159]
130	[257, 258]	1563	[2451, 807]	2996	[4125, 1959]	4429	[1221, 3405]
131	[259, 260]	1564	[2452, 2453]	2997	[2359, 795]	4430	[5160, 3111]
132	[261, 262]	1565	[2454, 180]	2998	[4126, 756]	4431	[5161, 15]
133	[263, 264]	1566	[2455, 2263]	2999	[4127, 1974]	4432	[4501, 3170]
134	[265, 266]	1567	[821, 1978]	3000	[237, 1793]	4433	[5162, 5163]
135	[267, 268]	1568	[2456, 766]	3001	[1883, 513]	4434	[5164, 1307]
136	[269, 270]	1569	[2457, 2309]	3002	[4128, 4051]	4435	[4510, 4497]
137	[271, 272]	1570	[1630, 2458]	3003	[2259, 1660]	4436	[1129, 5037]
138	[273, 274]	1571	[2459, 2460]	3004	[4129, 3906]	4437	[5165, 1265]
139	[275, 276]	1572	[2015, 2364]	3005	[4130, 825]	4438	[5166, 3565]
140	[277, 278]	1573	[1939, 1645]	3006	[4131, 4132]	4439	[5167, 2730]
141	[279, 280]	1574	[2461, 879]	3007	[4133, 2331]	4440	[3239, 5168]
142	[281, 282]	1575	[1704, 2448]	3008	[4134, 2104]	4441	[5070, 5106]

143	[283, 284]	1576	[2462, 1798]	3009	[896, 680]	4442	[5116, 5169]
144	[285, 286]	1577	[1971, 881]	3010	[43, 238]	4443	[5170, 4514]
145	[287, 288]	1578	[227, 1642]	3011	[2260, 1696]	4444	[5171, 413]
146	[289, 290]	1579	[813, 680]	3012	[4016, 851]	4445	[5172, 5173]
147	[291, 292]	1580	[2463, 2464]	3013	[4135, 1822]	4446	[3090, 2902]
148	[293, 294]	1581	[2465, 2466]	3014	[2283, 2035]	4447	[5174, 3035]
149	[295, 296]	1582	[2467, 2133]	3015	[32, 1750]	4448	[2540, 5175]
150	[297, 298]	1583	[1790, 1987]	3016	[4136, 1944]	4449	[5176, 4747]
151	[299, 300]	1584	[2301, 2080]	3017	[4137, 2182]	4450	[5177, 2795]
152	[301, 302]	1585	[495, 2468]	3018	[4138, 1932]	4451	[4574, 1471]
153	[303, 304]	1586	[2106, 2212]	3019	[1666, 1816]	4452	[5178, 5179]
154	[305, 306]	1587	[2469, 1950]	3020	[192, 2058]	4453	[5180, 2521]
155	[307, 308]	1588	[2470, 563]	3021	[4139, 4140]	4454	[4856, 3254]
156	[309, 310]	1589	[2471, 888]	3022	[2035, 4141]	4455	[1393, 409]
157	[311, 312]	1590	[2472, 213]	3023	[4142, 1699]	4456	[5049, 5181]
158	[313, 314]	1591	[2473, 2474]	3024	[4143, 243]	4457	[1328, 2882]
159	[315, 316]	1592	[826, 2357]	3025	[2135, 568]	4458	[5182, 4621]
160	[317, 318]	1593	[785, 2238]	3026	[4144, 1772]	4459	[2795, 5183]
161	[319, 320]	1594	[2010, 2475]	3027	[229, 176]	4460	[460, 4737]
162	[321, 322]	1595	[572, 56]	3028	[2145, 3857]	4461	[5184, 5185]
163	[323, 324]	1596	[2476, 595]	3029	[2147, 570]	4462	[5186, 5124]
164	[325, 326]	1597	[2126, 664]	3030	[4145, 546]	4463	[5187, 2700]
165	[327, 328]	1598	[1695, 2261]	3031	[2067, 2145]	4464	[5188, 4721]
166	[329, 330]	1599	[619, 2477]	3032	[4146, 2021]	4465	[5189, 5190]
167	[331, 332]	1600	[2478, 2430]	3033	[4147, 2342]	4466	[5191, 3256]
168	[333, 334]	1601	[2479, 1761]	3034	[4148, 3860]	4467	[5192, 4850]
169	[335, 336]	1602	[2480, 2248]	3035	[2456, 145]	4468	[5193, 2780]
170	[337, 338]	1603	[2481, 663]	3036	[3787, 1710]	4469	[937, 3600]
171	[339, 340]	1604	[717, 2350]	3037	[4149, 4022]	4470	[3565, 1092]
172	[341, 342]	1605	[1979, 1741]	3038	[4150, 4090]	4471	[399, 5194]
173	[343, 344]	1606	[740, 12]	3039	[864, 4038]	4472	[5195, 5196]
174	[345, 346]	1607	[2482, 1888]	3040	[4151, 1720]	4473	[5197, 5198]
175	[347, 295]	1608	[2483, 1693]	3041	[4152, 174]	4474	[5199, 5200]
176	[348, 349]	1609	[2484, 2485]	3042	[4106, 613]	4475	[923, 1073]
177	[74, 350]	1610	[2168, 2174]	3043	[1631, 2364]	4476	[5201, 269]
178	[351, 352]	1611	[2180, 1980]	3044	[3953, 2014]	4477	[5202, 3603]
179	[353, 354]	1612	[2485, 1662]	3045	[176, 149]	4478	[5203, 19]
180	[355, 356]	1613	[2486, 896]	3046	[3864, 3952]	4479	[4729, 5204]
181	[357, 358]	1614	[876, 1778]	3047	[2023, 2260]	4480	[5205, 2609]
182	[359, 360]	1615	[1923, 225]	3048	[4153, 4050]	4481	[2526, 2560]
183	[361, 362]	1616	[2487, 730]	3049	[769, 4154]	4482	[5206, 5207]
184	[363, 364]	1617	[2488, 2489]	3050	[4155, 1649]	4483	[3238, 5208]
185	[365, 366]	1618	[2490, 2227]	3051	[735, 679]	4484	[5209, 102]
186	[350, 367]	1619	[657, 2247]	3052	[4156, 739]	4485	[288, 371]

187	[368, 369]	1620	[2491, 785]	3053	[4134, 859]	4486	[5210, 2697]
188	[370, 371]	1621	[2492, 1627]	3054	[4070, 235]	4487	[4638, 5211]
189	[372, 373]	1622	[2493, 555]	3055	[722, 2141]	4488	[5212, 4875]
190	[374, 375]	1623	[2494, 2495]	3056	[4157, 4098]	4489	[2884, 4817]
191	[376, 377]	1624	[2496, 2497]	3057	[1884, 4132]	4490	[3504, 4887]
192	[378, 379]	1625	[1932, 131]	3058	[4158, 3951]	4491	[4938, 2713]
193	[380, 381]	1626	[2498, 873]	3059	[4159, 3927]	4492	[417, 5213]
194	[382, 383]	1627	[2499, 2500]	3060	[4160, 610]	4493	[3214, 3349]
195	[384, 385]	1628	[2501, 2502]	3061	[4161, 2098]	4494	[5214, 367]
196	[386, 387]	1629	[2503, 2504]	3062	[4162, 1960]	4495	[5215, 1340]
197	[388, 389]	1630	[2505, 2506]	3063	[4163, 770]	4496	[5216, 262]
198	[390, 391]	1631	[2507, 2508]	3064	[2010, 54]	4497	[3950, 1842]
199	[392, 393]	1632	[2509, 2510]	3065	[4164, 208]	4498	[2385, 2148]
200	[394, 395]	1633	[2511, 2512]	3066	[4165, 3794]	4499	[5217, 2362]
201	[396, 397]	1634	[2513, 2514]	3067	[577, 724]	4500	[5218, 2261]
202	[398, 399]	1635	[2515, 2516]	3068	[2493, 2151]	4501	[828, 1764]
203	[400, 401]	1636	[2517, 2518]	3069	[4166, 1746]	4502	[5219, 828]
204	[402, 403]	1637	[2519, 2520]	3070	[832, 1783]	4503	[4258, 563]
205	[404, 405]	1638	[2521, 2522]	3071	[4167, 2088]	4504	[5220, 499]
206	[406, 407]	1639	[2523, 2524]	3072	[2228, 48]	4505	[5221, 4349]
207	[408, 409]	1640	[2525, 2526]	3073	[4168, 4115]	4506	[2266, 3895]
208	[410, 411]	1641	[2527, 2528]	3074	[4169, 781]	4507	[249, 1691]
209	[412, 413]	1642	[20, 2529]	3075	[650, 3896]	4508	[190, 1653]
210	[414, 415]	1643	[2530, 2531]	3076	[697, 720]	4509	[3996, 2123]
211	[416, 417]	1644	[2532, 2533]	3077	[541, 217]	4510	[171, 2385]
212	[418, 419]	1645	[1232, 2534]	3078	[4170, 4072]	4511	[2417, 3880]
213	[420, 421]	1646	[2535, 2536]	3079	[4171, 4172]	4512	[2387, 1762]
214	[422, 423]	1647	[2537, 2538]	3080	[847, 2483]	4513	[2143, 4493]
215	[424, 425]	1648	[2539, 2540]	3081	[4173, 1730]	4514	[2090, 2158]
216	[426, 427]	1649	[2541, 2542]	3082	[3837, 3849]	4515	[219, 830]
217	[428, 429]	1650	[2543, 2544]	3083	[4174, 788]	4516	[2297, 2206]
218	[430, 431]	1651	[2545, 2546]	3084	[614, 41]	4517	[5222, 838]
219	[286, 432]	1652	[2547, 2548]	3085	[1950, 36]	4518	[153, 3776]
220	[433, 434]	1653	[373, 2549]	3086	[4175, 519]	4519	[5223, 1948]
221	[435, 436]	1654	[2550, 2551]	3087	[2139, 2008]	4520	[2263, 4102]
222	[437, 438]	1655	[2552, 2553]	3088	[4176, 1936]	4521	[2226, 1920]
223	[439, 440]	1656	[2554, 2555]	3089	[1659, 730]	4522	[4304, 2453]
224	[441, 442]	1657	[2556, 2557]	3090	[4177, 1867]	4523	[3760, 2058]
225	[443, 444]	1658	[2558, 2559]	3091	[4178, 4179]	4524	[5224, 1788]
226	[445, 446]	1659	[2560, 2561]	3092	[2376, 2446]	4525	[5225, 60]
227	[447, 448]	1660	[2562, 2563]	3093	[4180, 1639]	4526	[5226, 4064]
228	[449, 334]	1661	[2564, 2565]	3094	[1627, 46]	4527	[5227, 1959]
229	[450, 451]	1662	[70, 2566]	3095	[2288, 697]	4528	[3966, 3947]
230	[6, 452]	1663	[1269, 2567]	3096	[4181, 4182]	4529	[538, 173]

231	[453, 454]	1664	[2568, 401]	3097	[1754, 1764]	4530	[3996, 784]
232	[455, 456]	1665	[2569, 2570]	3098	[2085, 2411]	4531	[610, 1967]
233	[457, 458]	1666	[2571, 2572]	3099	[1736, 1720]	4532	[1691, 4325]
234	[459, 460]	1667	[2573, 2574]	3100	[1675, 791]	4533	[5228, 2495]
235	[461, 462]	1668	[2575, 2576]	3101	[4183, 3880]	4534	[543, 659]
236	[463, 464]	1669	[2577, 2578]	3102	[4184, 2320]	4535	[5229, 752]
237	[465, 466]	1670	[2579, 2580]	3103	[4185, 1837]	4536	[779, 3906]
238	[467, 468]	1671	[2581, 2582]	3104	[242, 857]	4537	[5230, 650]
239	[469, 470]	1672	[2583, 2584]	3105	[1982, 4186]	4538	[5231, 2005]
240	[471, 472]	1673	[2585, 348]	3106	[1891, 1677]	4539	[646, 171]
241	[473, 474]	1674	[2586, 2587]	3107	[4187, 1874]	4540	[4312, 2147]
242	[475, 476]	1675	[2588, 2589]	3108	[4188, 4189]	4541	[2494, 1844]
243	[477, 478]	1676	[2590, 2591]	3109	[4190, 1712]	4542	[748, 3909]
244	[479, 480]	1677	[2592, 2593]	3110	[191, 3760]	4543	[5232, 1713]
245	[481, 482]	1678	[2594, 2595]	3111	[3801, 2014]	4544	[4137, 1901]
246	[483, 484]	1679	[2596, 2597]	3112	[4191, 3849]	4545	[160, 141]
247	[485, 486]	1680	[2598, 1530]	3113	[4022, 3773]	4546	[3801, 3954]
248	[487, 488]	1681	[2599, 1623]	3114	[2046, 4192]	4547	[3958, 2280]
249	[489, 490]	1682	[2600, 2601]	3115	[646, 2119]	4548	[5233, 877]
250	[491, 492]	1683	[2602, 2603]	3116	[3837, 3855]	4549	[2420, 2366]
251	[493, 34]	1684	[2604, 469]	3117	[4193, 1890]	4550	[1866, 4305]
252	[494, 495]	1685	[1271, 2605]	3118	[4194, 1712]	4551	[4009, 3905]
253	[496, 497]	1686	[2606, 2607]	3119	[587, 4195]	4552	[613, 513]
254	[498, 499]	1687	[2608, 2609]	3120	[4196, 871]	4553	[5234, 2090]
255	[500, 501]	1688	[1127, 2610]	3121	[4197, 528]	4554	[4351, 1825]
256	[502, 503]	1689	[2611, 2612]	3122	[4198, 237]	4555	[5235, 3861]
257	[504, 505]	1690	[2613, 2614]	3123	[4199, 2289]	4556	[5236, 2416]
258	[506, 507]	1691	[1517, 2615]	3124	[3808, 4200]	4557	[5237, 3982]
259	[508, 509]	1692	[2616, 2617]	3125	[4201, 2154]	4558	[1959, 2468]
260	[510, 511]	1693	[2618, 2619]	3126	[2149, 520]	4559	[5238, 8]
261	[512, 141]	1694	[2620, 2621]	3127	[1678, 4202]	4560	[1647, 4377]
262	[513, 514]	1695	[2622, 2623]	3128	[3851, 4203]	4561	[5239, 4056]
263	[515, 516]	1696	[2624, 2625]	3129	[892, 62]	4562	[5240, 4016]
264	[517, 518]	1697	[2626, 2627]	3130	[4204, 516]	4563	[2020, 652]
265	[204, 519]	1698	[2628, 2629]	3131	[4205, 595]	4564	[5241, 184]
266	[520, 521]	1699	[2630, 2631]	3132	[4206, 1819]	4565	[877, 2188]
267	[522, 523]	1700	[2632, 2633]	3133	[4207, 3902]	4566	[1798, 1753]
268	[524, 525]	1701	[2634, 2635]	3134	[4208, 2094]	4567	[5242, 770]
269	[526, 527]	1702	[2636, 2637]	3135	[1662, 2362]	4568	[5243, 512]
270	[528, 529]	1703	[2638, 2639]	3136	[3989, 1638]	4569	[2475, 2138]
271	[530, 531]	1704	[2640, 2641]	3137	[4209, 3808]	4570	[1869, 4046]
272	[532, 8]	1705	[2642, 1607]	3138	[4210, 2156]	4571	[5244, 2123]
273	[533, 198]	1706	[2643, 1374]	3139	[1776, 2312]	4572	[2172, 1944]
274	[534, 535]	1707	[2644, 1615]	3140	[838, 2383]	4573	[5245, 4031]

275	[536, 537]	1708	[2645, 2646]	3141	[4211, 4212]	4574	[2449, 245]
276	[538, 539]	1709	[2647, 2648]	3142	[4213, 1862]	4575	[3780, 2157]
277	[540, 58]	1710	[2649, 2650]	3143	[2262, 3841]	4576	[5246, 2371]
278	[541, 542]	1711	[2651, 2652]	3144	[2023, 1695]	4577	[4456, 850]
279	[543, 544]	1712	[2653, 2654]	3145	[593, 2368]	4578	[5247, 2028]
280	[545, 546]	1713	[276, 2655]	3146	[4214, 1675]	4579	[1827, 1888]
281	[547, 548]	1714	[2656, 2657]	3147	[2202, 547]	4580	[5248, 667]
282	[549, 550]	1715	[2658, 2659]	3148	[1795, 3789]	4581	[5249, 525]
283	[551, 552]	1716	[2660, 2661]	3149	[4215, 578]	4582	[1904, 863]
284	[553, 554]	1717	[2662, 459]	3150	[2232, 614]	4583	[4263, 1684]
285	[555, 556]	1718	[2663, 480]	3151	[4216, 664]	4584	[1869, 36]
286	[557, 558]	1719	[2664, 255]	3152	[3796, 2379]	4585	[5250, 3969]
287	[559, 218]	1720	[2665, 2666]	3153	[4217, 867]	4586	[5251, 4422]
288	[560, 525]	1721	[2610, 2667]	3154	[4218, 827]	4587	[2217, 586]
289	[561, 562]	1722	[2668, 1350]	3155	[4219, 3821]	4588	[5252, 52]
290	[563, 564]	1723	[451, 2669]	3156	[4220, 1841]	4589	[1962, 1812]
291	[565, 566]	1724	[2670, 1433]	3157	[4198, 1792]	4590	[4124, 182]
292	[567, 568]	1725	[2671, 2672]	3158	[4221, 185]	4591	[4244, 2104]
293	[569, 570]	1726	[2673, 2674]	3159	[845, 4179]	4592	[1888, 3811]
294	[571, 572]	1727	[2675, 2676]	3160	[694, 2430]	4593	[5253, 2066]
295	[573, 574]	1728	[2677, 2678]	3161	[3995, 783]	4594	[2018, 2208]
296	[575, 576]	1729	[2679, 2680]	3162	[1725, 531]	4595	[5254, 2]
297	[577, 578]	1730	[2681, 2682]	3163	[2273, 4206]	4596	[793, 3930]
298	[579, 580]	1731	[2683, 2684]	3164	[2088, 3791]	4597	[2114, 2298]
299	[581, 582]	1732	[2685, 2686]	3165	[1983, 2136]	4598	[5255, 821]
300	[583, 584]	1733	[2687, 2688]	3166	[2304, 1758]	4599	[1720, 129]
301	[585, 586]	1734	[1099, 2689]	3167	[4222, 650]	4600	[828, 725]
302	[587, 588]	1735	[2690, 2691]	3168	[4223, 3909]	4601	[5256, 694]
303	[589, 590]	1736	[2692, 1207]	3169	[666, 1939]	4602	[568, 171]
304	[591, 592]	1737	[2693, 457]	3170	[618, 2131]	4603	[5257, 4170]
305	[593, 594]	1738	[2694, 2695]	3171	[4224, 231]	4604	[2419, 4192]
306	[595, 596]	1739	[927, 2696]	3172	[683, 2013]	4605	[507, 1830]
307	[597, 140]	1740	[2697, 404]	3173	[4225, 746]	4606	[5258, 784]
308	[598, 578]	1741	[2698, 2505]	3174	[2009, 53]	4607	[537, 657]
309	[599, 48]	1742	[1139, 2699]	3175	[1928, 1998]	4608	[4023, 3774]
310	[600, 601]	1743	[2700, 285]	3176	[4206, 3873]	4609	[1842, 4022]
311	[602, 603]	1744	[2701, 2702]	3177	[4226, 3774]	4610	[5259, 2233]
312	[604, 605]	1745	[2703, 2704]	3178	[1991, 134]	4611	[579, 1903]
313	[606, 607]	1746	[2705, 2706]	3179	[2199, 3781]	4612	[4380, 1675]
314	[573, 608]	1747	[2707, 2708]	3180	[138, 3945]	4613	[1745, 2403]
315	[609, 610]	1748	[1501, 2709]	3181	[4227, 1707]	4614	[5260, 235]
316	[611, 612]	1749	[2710, 2711]	3182	[212, 514]	4615	[5261, 2389]
317	[613, 212]	1750	[64, 2712]	3183	[4228, 2396]	4616	[774, 580]
318	[614, 615]	1751	[2713, 2537]	3184	[4229, 1952]	4617	[722, 4457]

319	[616, 617]	1752	[2714, 2715]	3185	[4230, 2]	4618	[205, 700]
320	[618, 619]	1753	[2716, 2717]	3186	[1940, 4009]	4619	[1921, 4387]
321	[620, 621]	1754	[1131, 1363]	3187	[2415, 712]	4620	[498, 3921]
322	[622, 623]	1755	[2718, 2719]	3188	[4231, 789]	4621	[2070, 762]
323	[624, 625]	1756	[2720, 1390]	3189	[4232, 3787]	4622	[5262, 158]
324	[626, 627]	1757	[78, 2721]	3190	[4233, 235]	4623	[1689, 1772]
325	[628, 629]	1758	[2722, 2723]	3191	[571, 2434]	4624	[2144, 764]
326	[630, 631]	1759	[2724, 2725]	3192	[1678, 4200]	4625	[4109, 3837]
327	[632, 633]	1760	[2726, 2727]	3193	[159, 512]	4626	[696, 2289]
328	[634, 635]	1761	[2728, 2729]	3194	[2229, 4234]	4627	[5263, 2275]
329	[636, 637]	1762	[2730, 2731]	3195	[4160, 1872]	4628	[4449, 1905]
330	[638, 639]	1763	[2732, 1256]	3196	[4235, 2019]	4629	[5264, 220]
331	[640, 641]	1764	[1511, 2733]	3197	[4115, 1798]	4630	[4447, 2101]
332	[642, 643]	1765	[2734, 2735]	3198	[752, 3760]	4631	[5265, 159]
333	[644, 645]	1766	[2736, 1029]	3199	[1896, 1788]	4632	[141, 3793]
334	[567, 646]	1767	[2737, 2738]	3200	[4219, 2069]	4633	[5266, 1805]
335	[647, 648]	1768	[2739, 2740]	3201	[4236, 4030]	4634	[5267, 1927]
336	[649, 650]	1769	[2741, 2742]	3202	[4237, 2448]	4635	[3859, 2227]
337	[651, 652]	1770	[2743, 91]	3203	[4238, 2206]	4636	[2459, 643]
338	[653, 9]	1771	[2744, 1592]	3204	[1990, 133]	4637	[5268, 3856]
339	[654, 655]	1772	[2745, 1106]	3205	[2194, 799]	4638	[5269, 1844]
340	[656, 657]	1773	[2746, 2747]	3206	[1818, 3873]	4639	[5270, 2164]
341	[658, 659]	1774	[2748, 2749]	3207	[736, 4118]	4640	[4115, 879]
342	[660, 661]	1775	[2750, 2751]	3208	[2458, 2364]	4641	[2027, 4059]
343	[662, 663]	1776	[1257, 2752]	3209	[678, 1834]	4642	[4086, 620]
344	[664, 49]	1777	[2753, 2754]	3210	[2258, 883]	4643	[1742, 3870]
345	[665, 666]	1778	[2755, 1283]	3211	[3993, 4115]	4644	[5217, 1663]
346	[667, 668]	1779	[2756, 2757]	3212	[575, 130]	4645	[688, 1662]
347	[669, 575]	1780	[2758, 421]	3213	[4239, 2006]	4646	[4338, 2087]
348	[670, 671]	1781	[2759, 2760]	3214	[4240, 4241]	4647	[5271, 2267]
349	[172, 672]	1782	[2699, 1213]	3215	[156, 2373]	4648	[4488, 2073]
350	[148, 673]	1783	[2761, 2762]	3216	[4242, 1972]	4649	[5272, 580]
351	[674, 675]	1784	[2763, 1425]	3217	[4243, 239]	4650	[4342, 855]
352	[676, 677]	1785	[2764, 2765]	3218	[750, 3850]	4651	[897, 4022]
353	[678, 679]	1786	[995, 2766]	3219	[4244, 859]	4652	[5273, 212]
354	[680, 31]	1787	[2767, 2768]	3220	[4245, 1987]	4653	[5274, 1868]
355	[681, 682]	1788	[2769, 2770]	3221	[536, 656]	4654	[4298, 2489]
356	[683, 684]	1789	[2771, 2772]	3222	[1836, 4246]	4655	[5275, 2212]
357	[685, 686]	1790	[2773, 1197]	3223	[4247, 1794]	4656	[759, 1671]
358	[687, 667]	1791	[324, 2774]	3224	[3962, 3850]	4657	[5276, 2239]
359	[688, 689]	1792	[2775, 2776]	3225	[2471, 189]	4658	[61, 893]
360	[690, 691]	1793	[464, 2777]	3226	[4248, 2133]	4659	[5277, 3975]
361	[692, 693]	1794	[2778, 2779]	3227	[211, 2442]	4660	[5278, 2214]
362	[694, 695]	1795	[2780, 2781]	3228	[4249, 2158]	4661	[2005, 1910]

363	[696, 697]	1796	[2782, 2783]	3229	[4148, 2227]	4662	[5274, 2469]
364	[698, 545]	1797	[2784, 1233]	3230	[4250, 600]	4663	[2373, 739]
365	[699, 700]	1798	[1337, 2785]	3231	[3929, 4206]	4664	[5279, 2049]
366	[701, 702]	1799	[2786, 2787]	3232	[4251, 4252]	4665	[5280, 200]
367	[150, 679]	1800	[2788, 1006]	3233	[1826, 4038]	4666	[5281, 883]
368	[703, 704]	1801	[2789, 2790]	3234	[631, 2086]	4667	[183, 2053]
369	[705, 706]	1802	[2791, 2792]	3235	[4253, 3996]	4668	[5282, 1832]
370	[707, 708]	1803	[282, 2793]	3236	[2274, 4254]	4669	[5283, 1790]
371	[709, 710]	1804	[2794, 2795]	3237	[3871, 2017]	4670	[2074, 1781]
372	[711, 712]	1805	[2796, 2797]	3238	[225, 2188]	4671	[162, 830]
373	[713, 714]	1806	[2798, 2799]	3239	[1892, 3808]	4672	[5284, 766]
374	[715, 716]	1807	[1475, 2800]	3240	[1730, 1946]	4673	[5269, 2495]
375	[717, 718]	1808	[2801, 2802]	3241	[4255, 4092]	4674	[2031, 3954]
376	[719, 720]	1809	[2803, 114]	3242	[2480, 671]	4675	[4031, 733]
377	[721, 722]	1810	[2804, 2805]	3243	[4256, 2077]	4676	[5285, 796]
378	[723, 159]	1811	[2806, 2807]	3244	[3819, 186]	4677	[5286, 4396]
379	[598, 724]	1812	[2808, 2809]	3245	[4257, 2333]	4678	[5242, 4154]
380	[725, 682]	1813	[421, 2810]	3246	[4258, 2223]	4679	[5287, 2075]
381	[158, 726]	1814	[2811, 2812]	3247	[4259, 2284]	4680	[39, 2202]
382	[727, 728]	1815	[2813, 2814]	3248	[751, 4260]	4681	[2289, 3771]
383	[729, 730]	1816	[2815, 1125]	3249	[234, 2128]	4682	[5288, 3923]
384	[731, 732]	1817	[2781, 2816]	3250	[802, 4261]	4683	[788, 2066]
385	[34, 733]	1818	[2817, 2818]	3251	[2250, 4019]	4684	[5289, 1754]
386	[734, 735]	1819	[1477, 2819]	3252	[4262, 760]	4685	[38, 519]
387	[736, 737]	1820	[2567, 2820]	3253	[4263, 693]	4686	[668, 2049]
388	[738, 739]	1821	[2821, 2822]	3254	[3886, 2333]	4687	[1872, 1967]
389	[531, 740]	1822	[2823, 2824]	3255	[826, 1638]	4688	[2433, 1893]
390	[741, 742]	1823	[2825, 2826]	3256	[1767, 2230]	4689	[5290, 635]
391	[743, 744]	1824	[2827, 2828]	3257	[4162, 2468]	4690	[5291, 1753]
392	[745, 746]	1825	[2829, 2830]	3258	[1860, 4182]	4691	[500, 562]
393	[190, 747]	1826	[2831, 2832]	3259	[1752, 1647]	4692	[5292, 4234]
394	[748, 749]	1827	[2833, 2834]	3260	[3913, 3948]	4693	[5293, 788]
395	[750, 751]	1828	[2835, 2836]	3261	[531, 1895]	4694	[5236, 1852]
396	[752, 192]	1829	[2837, 2838]	3262	[4264, 1671]	4695	[4051, 1647]
397	[742, 753]	1830	[2839, 1192]	3263	[4265, 697]	4696	[5294, 1991]
398	[754, 203]	1831	[2840, 2841]	3264	[4266, 4082]	4697	[5232, 1837]
399	[755, 756]	1832	[2842, 2690]	3265	[551, 4090]	4698	[5295, 162]
400	[757, 758]	1833	[2843, 297]	3266	[4267, 205]	4699	[54, 2138]
401	[759, 760]	1834	[1504, 2844]	3267	[898, 4023]	4700	[1661, 2260]
402	[761, 762]	1835	[2845, 2846]	3268	[2380, 518]	4701	[1997, 637]
403	[763, 191]	1836	[2847, 2848]	3269	[2305, 2270]	4702	[2413, 1830]
404	[764, 765]	1837	[2849, 2850]	3270	[4268, 1717]	4703	[5296, 1802]
405	[766, 146]	1838	[2851, 2852]	3271	[4190, 538]	4704	[5297, 1984]
406	[767, 768]	1839	[2853, 2713]	3272	[4269, 1899]	4705	[5298, 550]

407	[769, 770]	1840	[2854, 2855]	3273	[4270, 4182]	4706	[5299, 654]
408	[771, 772]	1841	[2856, 2857]	3274	[4271, 192]	4707	[5300, 1877]
409	[773, 774]	1842	[2858, 2859]	3275	[4272, 1864]	4708	[1692, 2153]
410	[775, 776]	1843	[2860, 1016]	3276	[4273, 4123]	4709	[2466, 655]
411	[777, 778]	1844	[2861, 2862]	3277	[4274, 4119]	4710	[4357, 4261]
412	[779, 780]	1845	[2863, 2864]	3278	[4275, 4276]	4711	[840, 2294]
413	[781, 782]	1846	[2865, 2866]	3279	[4277, 2453]	4712	[5301, 2242]
414	[783, 784]	1847	[2867, 2868]	3280	[2001, 3813]	4713	[5302, 2442]
415	[580, 785]	1848	[2869, 2870]	3281	[1836, 4186]	4714	[2036, 2483]
416	[786, 787]	1849	[2871, 2872]	3282	[898, 3773]	4715	[5303, 4325]
417	[788, 789]	1850	[2873, 2874]	3283	[4278, 1655]	4716	[4371, 1981]
418	[790, 791]	1851	[2875, 2876]	3284	[4279, 2058]	4717	[5304, 2399]
419	[792, 793]	1852	[458, 910]	3285	[2409, 1690]	4718	[5305, 653]
420	[157, 794]	1853	[991, 2877]	3286	[237, 4014]	4719	[3890, 4241]
421	[795, 796]	1854	[2691, 2878]	3287	[2102, 2075]	4720	[1740, 38]
422	[797, 33]	1855	[2879, 2880]	3288	[1792, 4014]	4721	[3826, 3937]
423	[798, 799]	1856	[2881, 2882]	3289	[4280, 4270]	4722	[5306, 2127]
424	[800, 801]	1857	[2883, 2884]	3290	[1957, 4011]	4723	[5307, 538]
425	[802, 595]	1858	[2885, 2714]	3291	[4281, 1883]	4724	[667, 2041]
426	[803, 804]	1859	[2886, 2887]	3292	[3900, 1848]	4725	[1654, 717]
427	[805, 684]	1860	[2888, 2889]	3293	[4282, 1905]	4726	[5308, 1956]
428	[806, 807]	1861	[2890, 2891]	3294	[4283, 536]	4727	[4006, 4482]
429	[808, 809]	1862	[2892, 2893]	3295	[4284, 2246]	4728	[5309, 656]
430	[810, 811]	1863	[2894, 2895]	3296	[4285, 2249]	4729	[1727, 4482]
431	[812, 813]	1864	[2896, 2897]	3297	[4048, 2250]	4730	[5310, 513]
432	[145, 600]	1865	[1166, 2898]	3298	[4286, 544]	4731	[2475, 1746]
433	[38, 205]	1866	[2899, 2900]	3299	[1984, 511]	4732	[4495, 772]
434	[814, 51]	1867	[2901, 2902]	3300	[4287, 2305]	4733	[3990, 2261]
435	[815, 816]	1868	[2903, 2904]	3301	[4288, 2091]	4734	[3834, 807]
436	[817, 818]	1869	[2820, 2905]	3302	[2469, 1869]	4735	[1762, 550]
437	[819, 820]	1870	[2906, 2907]	3303	[758, 131]	4736	[5311, 3909]
438	[821, 822]	1871	[2908, 1266]	3304	[1789, 4053]	4737	[2393, 4170]
439	[823, 150]	1872	[2909, 2910]	3305	[827, 1754]	4738	[5250, 4021]
440	[824, 825]	1873	[2911, 2912]	3306	[4289, 2316]	4739	[5312, 1867]
441	[10, 826]	1874	[2913, 1466]	3307	[3850, 4260]	4740	[1670, 760]
442	[827, 828]	1875	[2914, 2915]	3308	[2466, 2313]	4741	[5313, 520]
443	[829, 830]	1876	[2916, 2843]	3309	[1837, 566]	4742	[755, 4252]
444	[831, 249]	1877	[2841, 2917]	3310	[4290, 1864]	4743	[5314, 2354]
445	[832, 536]	1878	[2918, 2919]	3311	[4031, 2485]	4744	[3794, 2090]
446	[833, 834]	1879	[2920, 2921]	3312	[4291, 1879]	4745	[5315, 3778]
447	[835, 555]	1880	[2922, 2923]	3313	[4292, 2412]	4746	[2396, 1795]
448	[836, 837]	1881	[2729, 441]	3314	[4293, 764]	4747	[4223, 749]
449	[758, 838]	1882	[2924, 418]	3315	[3875, 848]	4748	[5316, 672]
450	[839, 840]	1883	[2925, 941]	3316	[608, 4294]	4749	[5317, 1629]

451	[841, 842]	1884	[2926, 2927]	3317	[4295, 1728]	4750	[1993, 3767]
452	[12, 843]	1885	[2928, 2929]	3318	[745, 637]	4751	[5318, 1]
453	[844, 686]	1886	[2930, 2931]	3319	[4296, 1851]	4752	[4229, 4170]
454	[845, 846]	1887	[2932, 2639]	3320	[4297, 2466]	4753	[5319, 2151]
455	[516, 776]	1888	[2933, 2934]	3321	[4298, 4005]	4754	[603, 3862]
456	[847, 848]	1889	[2935, 2936]	3322	[655, 4060]	4755	[5320, 4002]
457	[849, 850]	1890	[2937, 2938]	3323	[4299, 545]	4756	[2127, 49]
458	[666, 851]	1891	[2939, 2940]	3324	[2496, 1871]	4757	[60, 1931]
459	[852, 662]	1892	[2941, 2942]	3325	[677, 2285]	4758	[5321, 2260]
460	[853, 594]	1893	[2943, 2944]	3326	[4300, 221]	4759	[2479, 2387]
461	[854, 855]	1894	[2945, 1491]	3327	[4290, 2444]	4760	[5291, 3956]
462	[856, 857]	1895	[1432, 2946]	3328	[3860, 3769]	4761	[4119, 1630]
463	[858, 859]	1896	[2947, 2948]	3329	[1883, 212]	4762	[5322, 1631]
464	[860, 861]	1897	[2949, 1502]	3330	[4301, 4302]	4763	[3760, 617]
465	[862, 863]	1898	[126, 1084]	3331	[2315, 4085]	4764	[5323, 3864]
466	[864, 865]	1899	[2950, 2951]	3332	[3855, 675]	4765	[634, 3868]
467	[866, 867]	1900	[2952, 2953]	3333	[714, 2415]	4766	[5306, 664]
468	[222, 868]	1901	[2954, 1443]	3334	[4303, 1922]	4767	[5324, 2002]
469	[869, 870]	1902	[2757, 2955]	3335	[4304, 3762]	4768	[4173, 814]
470	[871, 822]	1903	[1587, 2956]	3336	[4177, 4305]	4769	[4368, 756]
471	[872, 873]	1904	[2957, 2958]	3337	[1832, 1734]	4770	[5325, 576]
472	[874, 145]	1905	[2959, 2663]	3338	[4288, 2065]	4771	[5326, 584]
473	[875, 186]	1906	[2960, 339]	3339	[2379, 3965]	4772	[3948, 2006]
474	[876, 633]	1907	[2961, 2962]	3340	[2119, 2385]	4773	[5327, 4186]
475	[877, 878]	1908	[2963, 2964]	3341	[2313, 1635]	4774	[4414, 2121]
476	[811, 879]	1909	[2965, 2966]	3342	[4306, 4212]	4775	[507, 1739]
477	[880, 881]	1910	[2967, 2968]	3343	[4306, 1810]	4776	[5328, 1908]
478	[882, 883]	1911	[2907, 2969]	3344	[4307, 2084]	4777	[5293, 2056]
479	[815, 12]	1912	[2970, 2971]	3345	[4144, 768]	4778	[5329, 1946]
480	[619, 884]	1913	[2972, 2973]	3346	[4214, 790]	4779	[1975, 639]
481	[885, 886]	1914	[2974, 1499]	3347	[4308, 1855]	4780	[5330, 3780]
482	[887, 888]	1915	[2975, 486]	3348	[4178, 846]	4781	[835, 2151]
483	[856, 243]	1916	[2976, 1516]	3349	[4016, 1939]	4782	[5331, 495]
484	[784, 889]	1917	[2977, 2978]	3350	[816, 843]	4783	[5332, 774]
485	[890, 145]	1918	[2979, 2980]	3351	[842, 1929]	4784	[1629, 4203]
486	[891, 788]	1919	[2981, 2982]	3352	[3874, 2143]	4785	[5333, 161]
487	[892, 893]	1920	[2983, 2741]	3353	[1980, 1639]	4786	[2495, 4172]
488	[778, 663]	1921	[1546, 2984]	3354	[4309, 141]	4787	[2165, 4118]
489	[894, 149]	1922	[2985, 2986]	3355	[1897, 821]	4788	[5230, 1969]
490	[895, 896]	1923	[2987, 2988]	3356	[4310, 4311]	4789	[4239, 1910]
491	[897, 898]	1924	[2534, 1414]	3357	[549, 1881]	4790	[4232, 1709]
492	[899, 590]	1925	[2989, 2990]	3358	[4312, 1908]	4791	[4028, 60]
493	[900, 901]	1926	[2991, 2992]	3359	[4313, 3813]	4792	[4237, 1705]
494	[902, 903]	1927	[2993, 96]	3360	[4041, 4064]	4793	[32, 2030]

495	[904, 905]	1928	[2994, 2995]	3361	[4314, 49]	4794	[4452, 2362]
496	[906, 907]	1929	[2996, 2997]	3362	[2251, 574]	4795	[4023, 3828]
497	[908, 909]	1930	[2998, 2999]	3363	[4117, 737]	4796	[5334, 1733]
498	[910, 911]	1931	[120, 3000]	3364	[1647, 732]	4797	[2467, 159]
499	[912, 913]	1932	[3001, 261]	3365	[4315, 3948]	4798	[4257, 14]
500	[914, 915]	1933	[3002, 3003]	3366	[4010, 1958]	4799	[4120, 4182]
501	[916, 917]	1934	[3004, 3005]	3367	[4316, 1933]	4800	[4256, 4025]
502	[918, 919]	1935	[3006, 2564]	3368	[4269, 188]	4801	[611, 1846]
503	[920, 921]	1936	[3007, 3008]	3369	[4317, 1783]	4802	[5335, 601]
504	[922, 923]	1937	[1389, 3009]	3370	[1714, 2118]	4803	[4199, 697]
505	[924, 925]	1938	[1604, 3010]	3371	[4318, 211]	4804	[3839, 2214]
506	[926, 927]	1939	[1230, 1497]	3372	[4319, 4005]	4805	[5336, 1897]
507	[928, 929]	1940	[3011, 3012]	3373	[4150, 552]	4806	[626, 2282]
508	[930, 931]	1941	[3013, 3014]	3374	[3847, 1942]	4807	[5337, 1820]
509	[932, 933]	1942	[16, 3015]	3375	[2308, 2216]	4808	[622, 607]
510	[934, 935]	1943	[3016, 3017]	3376	[4320, 3967]	4809	[1914, 3864]
511	[936, 937]	1944	[3018, 3019]	3377	[2263, 2039]	4810	[2019, 2209]
512	[938, 939]	1945	[3020, 2839]	3378	[4321, 2215]	4811	[5338, 2023]
513	[940, 347]	1946	[3021, 3022]	3379	[539, 174]	4812	[5339, 4020]
514	[941, 942]	1947	[3023, 1459]	3380	[4322, 4323]	4813	[1711, 623]
515	[943, 944]	1948	[3024, 3025]	3381	[4055, 881]	4814	[2133, 160]
516	[945, 946]	1949	[3026, 3027]	3382	[4324, 2004]	4815	[5340, 3857]
517	[947, 948]	1950	[3028, 3029]	3383	[2215, 2309]	4816	[893, 1767]
518	[949, 950]	1951	[1343, 2678]	3384	[2285, 4325]	4817	[1768, 158]
519	[951, 952]	1952	[3030, 3031]	3385	[4047, 1832]	4818	[5341, 860]
520	[953, 954]	1953	[3032, 2628]	3386	[682, 753]	4819	[623, 2398]
521	[955, 956]	1954	[3033, 3034]	3387	[4113, 3843]	4820	[5342, 2134]
522	[957, 958]	1955	[3035, 3036]	3388	[4326, 656]	4821	[4187, 215]
523	[959, 960]	1956	[3037, 3038]	3389	[4327, 2477]	4822	[136, 837]
524	[961, 962]	1957	[3039, 2965]	3390	[4328, 1963]	4823	[2198, 2141]
525	[963, 964]	1958	[3040, 2799]	3391	[4329, 2225]	4824	[5343, 2207]
526	[965, 966]	1959	[3041, 3042]	3392	[1855, 2193]	4825	[5344, 1998]
527	[967, 968]	1960	[903, 3043]	3393	[2211, 1665]	4826	[698, 1936]
528	[969, 970]	1961	[3044, 3045]	3394	[2377, 1877]	4827	[5345, 778]
529	[971, 972]	1962	[3046, 3047]	3395	[4330, 1734]	4828	[1752, 4050]
530	[973, 974]	1963	[3048, 3049]	3396	[2286, 1790]	4829	[4486, 5346]
531	[330, 975]	1964	[3050, 3051]	3397	[4331, 660]	4830	[167, 1876]
532	[976, 977]	1965	[3052, 2834]	3398	[1870, 2497]	4831	[5347, 2230]
533	[978, 979]	1966	[104, 3053]	3399	[1831, 2377]	4832	[2146, 1908]
534	[980, 981]	1967	[1125, 396]	3400	[4332, 4118]	4833	[3963, 1852]
535	[982, 983]	1968	[3054, 3055]	3401	[532, 1913]	4834	[5348, 1842]
536	[984, 985]	1969	[3056, 3057]	3402	[4333, 3921]	4835	[5349, 4023]
537	[986, 987]	1970	[3058, 357]	3403	[4217, 196]	4836	[2441, 3794]
538	[988, 989]	1971	[3059, 3060]	3404	[4334, 706]	4837	[1806, 2333]

539	[990, 991]	1972	[3061, 2560]	3405	[2114, 3927]	4838	[2290, 3910]
540	[992, 993]	1973	[3062, 441]	3406	[890, 766]	4839	[2097, 557]
541	[994, 995]	1974	[3063, 3]	3407	[4335, 4305]	4840	[5350, 770]
542	[996, 997]	1975	[3064, 2681]	3408	[4336, 1816]	4841	[3904, 3975]
543	[998, 999]	1976	[3065, 103]	3409	[4337, 614]	4842	[2344, 3985]
544	[1000, 1001]	1977	[3066, 3067]	3410	[705, 2320]	4843	[5351, 782]
545	[1002, 1003]	1978	[3068, 1264]	3411	[219, 728]	4844	[5352, 639]
546	[1004, 1005]	1979	[3069, 3070]	3412	[4338, 2178]	4845	[4043, 1802]
547	[1006, 1007]	1980	[3071, 3072]	3413	[2244, 1840]	4846	[5353, 2139]
548	[82, 1008]	1981	[3073, 3074]	3414	[4339, 4060]	4847	[4410, 1996]
549	[1009, 1010]	1982	[3075, 3076]	3415	[4194, 538]	4848	[2143, 661]
550	[1011, 1012]	1983	[3077, 3078]	3416	[1980, 4119]	4849	[2271, 631]
551	[1013, 1014]	1984	[3079, 3080]	3417	[738, 2440]	4850	[2131, 2477]
552	[1015, 1016]	1985	[3081, 3082]	3418	[4340, 4341]	4851	[4429, 2208]
553	[1017, 1018]	1986	[3083, 416]	3419	[4342, 3816]	4852	[4389, 893]
554	[1019, 1020]	1987	[3084, 3085]	3420	[1950, 4046]	4853	[3785, 1936]
555	[1021, 1022]	1988	[1324, 1101]	3421	[1821, 152]	4854	[4423, 3969]
556	[1023, 354]	1989	[3086, 3087]	3422	[4343, 747]	4855	[3876, 2422]
557	[1024, 1025]	1990	[1498, 265]	3423	[4344, 2387]	4856	[849, 1680]
558	[1026, 1027]	1991	[3088, 1102]	3424	[3955, 1753]	4857	[1855, 529]
559	[1028, 1029]	1992	[3089, 3090]	3425	[4345, 685]	4858	[5290, 3868]
560	[1030, 1031]	1993	[3091, 3092]	3426	[4130, 2061]	4859	[5272, 1903]
561	[1032, 1033]	1994	[3093, 1095]	3427	[1631, 2016]	4860	[5354, 655]
562	[1034, 1035]	1995	[3094, 3095]	3428	[4346, 751]	4861	[1903, 785]
563	[1036, 1037]	1996	[3096, 3026]	3429	[4347, 884]	4862	[5355, 4202]
564	[1038, 1039]	1997	[290, 2977]	3430	[1917, 582]	4863	[4017, 62]
565	[1040, 1041]	1998	[1559, 3097]	3431	[4348, 4349]	4864	[5356, 564]
566	[1042, 1043]	1999	[2717, 3098]	3432	[730, 2413]	4865	[5357, 3918]
567	[1044, 1045]	2000	[3099, 3100]	3433	[4350, 169]	4866	[1808, 3905]
568	[1046, 1047]	2001	[3101, 3102]	3434	[539, 2464]	4867	[887, 189]
569	[18, 1048]	2002	[3103, 2826]	3435	[4351, 2184]	4868	[5358, 562]
570	[1049, 1050]	2003	[3104, 3105]	3436	[4208, 1927]	4869	[1851, 2416]
571	[1051, 1052]	2004	[3106, 3107]	3437	[4352, 3841]	4870	[734, 150]
572	[1053, 1054]	2005	[3108, 3109]	3438	[4353, 568]	4871	[1632, 1751]
573	[1055, 1056]	2006	[3110, 3111]	3439	[51, 2354]	4872	[5328, 2147]
574	[1057, 1058]	2007	[3112, 3113]	3440	[4354, 1935]	4873	[5359, 1848]
575	[1059, 475]	2008	[3114, 2632]	3441	[510, 801]	4874	[4412, 1925]
576	[1060, 1061]	2009	[3115, 3116]	3442	[1877, 1735]	4875	[2037, 1655]
577	[1062, 1063]	2010	[3117, 2705]	3443	[586, 2089]	4876	[557, 3800]
578	[266, 1064]	2011	[3118, 3119]	3444	[560, 4341]	4877	[5360, 2159]
579	[1065, 1066]	2012	[3120, 3121]	3445	[783, 2123]	4878	[2390, 220]
580	[1067, 1068]	2013	[3122, 3123]	3446	[160, 3792]	4879	[5361, 596]
581	[1069, 1070]	2014	[3124, 120]	3447	[162, 728]	4880	[669, 129]
582	[1071, 1072]	2015	[3125, 3126]	3448	[4355, 2]	4881	[1709, 4002]

583	[1073, 1074]	2016	[3127, 3128]	3449	[3920, 499]	4882	[5260, 2128]
584	[1075, 1076]	2017	[3129, 3130]	3450	[4356, 33]	4883	[5362, 558]
585	[1077, 1078]	2018	[3131, 3132]	3451	[4357, 595]	4884	[2289, 720]
586	[1079, 1080]	2019	[3133, 3134]	3452	[1758, 2337]	4885	[5363, 724]
587	[1081, 1082]	2020	[332, 3135]	3453	[1932, 838]	4886	[5364, 2116]
588	[1083, 1084]	2021	[3136, 1059]	3454	[2285, 1886]	4887	[3831, 3851]
589	[1085, 1086]	2022	[3137, 3138]	3455	[4358, 1840]	4888	[5365, 572]
590	[1087, 1088]	2023	[3139, 3140]	3456	[4301, 4140]	4889	[5366, 4457]
591	[1089, 1090]	2024	[3141, 3142]	3457	[245, 1804]	4890	[4464, 2379]
592	[1091, 1092]	2025	[3143, 3144]	3458	[4359, 182]	4891	[5225, 1930]
593	[1093, 1094]	2026	[1234, 2840]	3459	[4360, 1920]	4892	[3908, 749]
594	[1095, 907]	2027	[3145, 395]	3460	[4361, 1833]	4893	[4156, 2440]
595	[1096, 1097]	2028	[3146, 1554]	3461	[4362, 4195]	4894	[5367, 2041]
596	[1098, 1099]	2029	[1398, 3147]	3462	[1982, 4246]	4895	[1661, 1695]
597	[1100, 1101]	2030	[3148, 1026]	3463	[4273, 535]	4896	[2084, 2359]
598	[1102, 1103]	2031	[3149, 3150]	3464	[4329, 1862]	4897	[5368, 809]
599	[1104, 1105]	2032	[3151, 3152]	3465	[4363, 194]	4898	[521, 2397]
600	[1106, 1107]	2033	[1058, 3153]	3466	[2293, 1]	4899	[3911, 4025]
601	[1108, 1109]	2034	[3154, 3155]	3467	[1660, 2023]	4900	[5369, 2071]
602	[1110, 1111]	2035	[3156, 2634]	3468	[4364, 577]	4901	[5356, 2422]
603	[1112, 1113]	2036	[3157, 3128]	3469	[808, 1842]	4902	[5350, 4154]
604	[1114, 1115]	2037	[3158, 3159]	3470	[3808, 4202]	4903	[1859, 4270]
605	[1116, 1117]	2038	[3160, 3161]	3471	[1978, 685]	4904	[1758, 2270]
606	[1118, 1119]	2039	[3162, 2637]	3472	[1797, 687]	4905	[5370, 2098]
607	[1120, 1121]	2040	[3163, 3164]	3473	[4365, 4246]	4906	[3765, 2055]
608	[1122, 1123]	2041	[3165, 275]	3474	[4366, 2469]	4907	[5371, 2294]
609	[1124, 1125]	2042	[1536, 3166]	3475	[4278, 717]	4908	[3788, 669]
610	[1126, 1127]	2043	[3167, 3168]	3476	[3822, 2305]	4909	[5372, 4241]
611	[1128, 1129]	2044	[346, 3169]	3477	[2431, 1677]	4910	[3991, 4059]
612	[1130, 1131]	2045	[3170, 2830]	3478	[4367, 2345]	4911	[5373, 4311]
613	[1132, 1133]	2046	[3171, 3172]	3479	[4368, 4252]	4912	[4332, 737]
614	[1134, 1135]	2047	[3173, 3174]	3480	[4369, 512]	4913	[3824, 2280]
615	[1136, 1137]	2048	[3175, 3152]	3481	[4184, 706]	4914	[816, 3843]
616	[1138, 1139]	2049	[3164, 3176]	3482	[4370, 1770]	4915	[2379, 1791]
617	[377, 1140]	2050	[3177, 3178]	3483	[2338, 715]	4916	[1968, 650]
618	[1141, 1142]	2051	[3179, 3180]	3484	[574, 4294]	4917	[3848, 2061]
619	[1143, 1144]	2052	[3181, 3182]	3485	[4371, 2121]	4918	[1803, 503]
620	[1145, 1146]	2053	[3183, 3184]	3486	[4372, 2070]	4919	[702, 3924]
621	[1147, 1148]	2054	[468, 3185]	3487	[2311, 1918]	4920	[1715, 166]
622	[1149, 1150]	2055	[3186, 3187]	3488	[4373, 2418]	4921	[5374, 3943]
623	[1151, 1152]	2056	[3188, 3189]	3489	[3901, 2101]	4922	[5375, 1710]
624	[1153, 1154]	2057	[3190, 1358]	3490	[4374, 2190]	4923	[4021, 136]
625	[1155, 1156]	2058	[3191, 3192]	3491	[4375, 2302]	4924	[5376, 2293]
626	[1157, 1158]	2059	[379, 3193]	3492	[1814, 2280]	4925	[600, 2117]

627	[1159, 1160]	2060	[3194, 3195]	3493	[4105, 250]	4926	[4437, 790]
628	[280, 1161]	2061	[3196, 3095]	3494	[4376, 1860]	4927	[5377, 4019]
629	[1162, 1163]	2062	[3197, 3198]	3495	[4366, 1868]	4928	[4044, 1840]
630	[326, 1164]	2063	[3199, 3200]	3496	[796, 3954]	4929	[5378, 2405]
631	[1165, 1166]	2064	[3201, 3202]	3497	[743, 2043]	4930	[4000, 2426]
632	[1167, 1168]	2065	[3203, 3204]	3498	[1798, 3956]	4931	[5379, 148]
633	[1169, 1170]	2066	[3205, 3162]	3499	[731, 4377]	4932	[5345, 662]
634	[1171, 1172]	2067	[1382, 3206]	3500	[4378, 1797]	4933	[5299, 2466]
635	[1173, 1174]	2068	[3207, 3208]	3501	[2339, 1965]	4934	[1724, 781]
636	[1175, 1176]	2069	[3209, 2940]	3502	[4379, 4260]	4935	[4487, 2286]
637	[1177, 1178]	2070	[3204, 65]	3503	[4380, 790]	4936	[218, 162]
638	[1179, 1180]	2071	[3210, 3211]	3504	[3909, 3780]	4937	[5380, 1869]
639	[1181, 1182]	2072	[3212, 2924]	3505	[4381, 2264]	4938	[512, 3792]
640	[1183, 1184]	2073	[3213, 3214]	3506	[4270, 2348]	4939	[4362, 588]
641	[1185, 1186]	2074	[2738, 3215]	3507	[4382, 2376]	4940	[5381, 2010]
642	[1187, 1188]	2075	[3216, 1023]	3508	[2052, 184]	4941	[5382, 521]
643	[1189, 1190]	2076	[3217, 3218]	3509	[4383, 702]	4942	[3928, 1986]
644	[1191, 1192]	2077	[3219, 472]	3510	[524, 4341]	4943	[5383, 661]
645	[1193, 1194]	2078	[3220, 3221]	3511	[3849, 675]	4944	[5370, 557]
646	[1195, 1196]	2079	[1316, 3222]	3512	[2465, 654]	4945	[2035, 3884]
647	[1197, 1198]	2080	[3223, 3224]	3513	[4384, 547]	4946	[4293, 2145]
648	[1199, 1200]	2081	[3225, 93]	3514	[4385, 673]	4947	[1633, 1752]
649	[1003, 1201]	2082	[3226, 3227]	3515	[4386, 4387]	4948	[1694, 1879]
650	[1202, 1203]	2083	[3228, 3229]	3516	[4388, 1652]	4949	[5384, 3804]
651	[1204, 1205]	2084	[3230, 3231]	3517	[2376, 2371]	4950	[4097, 5346]
652	[1206, 1207]	2085	[3232, 3233]	3518	[2040, 668]	4951	[1926, 2094]
653	[1208, 21]	2086	[1164, 3234]	3519	[4389, 62]	4952	[513, 213]
654	[1209, 1210]	2087	[3235, 3236]	3520	[4390, 3828]	4953	[4408, 622]
655	[1211, 1212]	2088	[3237, 3238]	3521	[605, 2190]	4954	[3988, 3996]
656	[1213, 1214]	2089	[1078, 3239]	3522	[2436, 4092]	4955	[5385, 837]
657	[1215, 455]	2090	[3082, 3240]	3523	[4265, 2289]	4956	[4476, 4021]
658	[1216, 1217]	2091	[3241, 3242]	3524	[2161, 1717]	4957	[5297, 510]
659	[1218, 1219]	2092	[3243, 2883]	3525	[4230, 4276]	4958	[1875, 168]
660	[1220, 1221]	2093	[3244, 1606]	3526	[4391, 1922]	4959	[5386, 813]
661	[1222, 1070]	2094	[3245, 3246]	3527	[4392, 1674]	4960	[5387, 621]
662	[1223, 1224]	2095	[3247, 2656]	3528	[4393, 1791]	4961	[3969, 836]
663	[1225, 1226]	2096	[3248, 3249]	3529	[4235, 2208]	4962	[797, 2174]
664	[1227, 1228]	2097	[3250, 3251]	3530	[1629, 3784]	4963	[1978, 1748]
665	[1229, 1230]	2098	[3252, 3253]	3531	[4394, 225]	4964	[5388, 592]
666	[1231, 1232]	2099	[3254, 3255]	3532	[4112, 161]	4965	[4261, 596]
667	[1233, 1234]	2100	[3256, 1368]	3533	[2131, 884]	4966	[5243, 160]
668	[1235, 1236]	2101	[3257, 324]	3534	[4395, 3850]	4967	[127, 2114]
669	[1237, 1060]	2102	[3258, 3259]	3535	[4139, 4302]	4968	[740, 816]
670	[1238, 1239]	2103	[3260, 3261]	3536	[4261, 2125]	4969	[896, 2070]

671	[1240, 259]	2104	[3262, 3181]	3537	[2396, 2112]	4970	[4222, 1969]
672	[1241, 1242]	2105	[3263, 1027]	3538	[2083, 714]	4971	[5389, 1918]
673	[292, 1235]	2106	[3264, 3265]	3539	[4370, 4396]	4972	[5390, 1760]
674	[1243, 900]	2107	[3266, 3267]	3540	[4397, 4141]	4973	[2284, 4141]
675	[960, 1244]	2108	[3268, 3269]	3541	[4398, 1709]	4974	[4004, 3974]
676	[1245, 1246]	2109	[1345, 953]	3542	[4399, 1651]	4975	[2477, 2372]
677	[1247, 1248]	2110	[3270, 955]	3543	[2327, 2010]	4976	[5391, 1660]
678	[1249, 1250]	2111	[3271, 3272]	3544	[2084, 2415]	4977	[860, 4441]
679	[296, 1251]	2112	[2768, 3273]	3545	[2177, 2087]	4978	[5392, 223]
680	[1252, 1253]	2113	[3274, 2939]	3546	[4400, 201]	4979	[4391, 4387]
681	[1254, 1255]	2114	[3275, 3276]	3547	[3841, 4102]	4980	[5393, 680]
682	[1256, 1257]	2115	[3277, 2692]	3548	[4401, 2397]	4981	[193, 2376]
683	[1258, 1259]	2116	[3278, 3279]	3549	[40, 547]	4982	[2078, 3843]
684	[1260, 1261]	2117	[3280, 1488]	3550	[2451, 3835]	4983	[5394, 2373]
685	[1262, 1263]	2118	[1041, 3281]	3551	[1877, 4189]	4984	[1639, 1630]
686	[1264, 1265]	2119	[1045, 3282]	3552	[4402, 2359]	4985	[3957, 631]
687	[1266, 1267]	2120	[3283, 2820]	3553	[4403, 2149]	4986	[5395, 217]
688	[1268, 1269]	2121	[3284, 943]	3554	[4404, 131]	4987	[660, 4493]
689	[1270, 1271]	2122	[3285, 936]	3555	[2231, 2390]	4988	[2415, 795]
690	[1272, 1273]	2123	[3286, 973]	3556	[4405, 2469]	4989	[685, 4056]
691	[1274, 1275]	2124	[1031, 3287]	3557	[1897, 871]	4990	[169, 233]
692	[1276, 976]	2125	[1467, 3288]	3558	[2310, 1644]	4991	[3992, 796]
693	[1277, 1278]	2126	[3289, 3290]	3559	[4406, 1893]	4992	[3846, 620]
694	[1279, 1280]	2127	[3291, 3292]	3560	[875, 3820]	4993	[5396, 1814]
695	[1281, 15]	2128	[3293, 914]	3561	[4407, 744]	4994	[2257, 684]
696	[1282, 1283]	2129	[3294, 3165]	3562	[4125, 495]	4995	[2457, 2216]
697	[1284, 1285]	2130	[3295, 1602]	3563	[58, 170]	4996	[5397, 542]
698	[1286, 1287]	2131	[3296, 3297]	3564	[852, 778]	4997	[545, 1937]
699	[1288, 1289]	2132	[3298, 3299]	3565	[158, 3993]	4998	[2372, 738]
700	[403, 1290]	2133	[3300, 3301]	3566	[2116, 861]	4999	[5398, 1741]
701	[1291, 1292]	2134	[1056, 979]	3567	[4050, 4377]	5000	[2281, 627]
702	[1293, 1294]	2135	[1356, 3302]	3568	[4051, 4050]	5001	[34, 2485]
703	[1295, 1296]	2136	[3303, 3304]	3569	[4158, 691]	5002	[4170, 2412]
704	[1297, 1298]	2137	[3305, 1559]	3570	[4197, 1855]	5003	[2476, 4261]
705	[1299, 1300]	2138	[3306, 3307]	3571	[4408, 1711]	5004	[2306, 778]
706	[1301, 423]	2139	[3308, 3309]	3572	[4409, 505]	5005	[5247, 4059]
707	[917, 1302]	2140	[3153, 3310]	3573	[4410, 590]	5006	[5399, 2025]
708	[94, 1303]	2141	[1020, 3311]	3574	[4411, 3769]	5007	[4181, 2348]
709	[1304, 1305]	2142	[3312, 1222]	3575	[4412, 2073]	5008	[1636, 218]
710	[1306, 1307]	2143	[3313, 3314]	3576	[173, 2464]	5009	[4465, 3952]
711	[1308, 1309]	2144	[3315, 3316]	3577	[4413, 1711]	5010	[4459, 198]
712	[1310, 1311]	2145	[3317, 3318]	3578	[668, 3852]	5011	[3786, 1709]
713	[1312, 1313]	2146	[3319, 1049]	3579	[4414, 1981]	5012	[5400, 3883]
714	[1314, 1310]	2147	[3320, 3321]	3580	[4415, 3982]	5013	[5264, 614]

715	[1315, 1316]	2148	[340, 3322]	3581	[582, 3910]	5014	[5401, 2413]
716	[1317, 1318]	2149	[3323, 3324]	3582	[4416, 687]	5015	[520, 2108]
717	[1319, 1320]	2150	[2553, 3325]	3583	[2062, 185]	5016	[3879, 2418]
718	[1321, 1322]	2151	[3326, 3327]	3584	[4417, 226]	5017	[5270, 3910]
719	[1323, 1324]	2152	[3328, 3329]	3585	[4418, 190]	5018	[4436, 4030]
720	[1325, 1326]	2153	[3330, 3331]	3586	[708, 521]	5019	[5296, 2330]
721	[1327, 1328]	2154	[2617, 3332]	3587	[4419, 3945]	5020	[5402, 134]
722	[1329, 1330]	2155	[3333, 3186]	3588	[1828, 1874]	5021	[4336, 1667]
723	[1331, 938]	2156	[3334, 3335]	3589	[4420, 4025]	5022	[5403, 2468]
724	[1332, 1333]	2157	[3336, 3337]	3590	[2373, 2440]	5023	[794, 726]
725	[1334, 1335]	2158	[3338, 3339]	3591	[48, 4234]	5024	[5404, 5346]
726	[1336, 1337]	2159	[3340, 3341]	3592	[2166, 4270]	5025	[2485, 689]
727	[1338, 1339]	2160	[3342, 3343]	3593	[4421, 132]	5026	[2130, 619]
728	[320, 1340]	2161	[3344, 3345]	3594	[809, 4022]	5027	[5405, 4254]
729	[1341, 928]	2162	[3346, 2712]	3595	[2123, 4422]	5028	[3815, 855]
730	[1342, 1343]	2163	[3347, 3348]	3596	[4423, 4021]	5029	[5406, 1886]
731	[1344, 1345]	2164	[3349, 3350]	3597	[2142, 660]	5030	[2115, 860]
732	[1346, 464]	2165	[3351, 3352]	3598	[4277, 3762]	5031	[5279, 3852]
733	[901, 1347]	2166	[1612, 3353]	3599	[534, 4123]	5032	[2359, 712]
734	[1348, 1349]	2167	[1561, 2730]	3600	[4424, 2005]	5033	[2407, 2250]
735	[1350, 1351]	2168	[3354, 69]	3601	[4425, 714]	5034	[3844, 3870]
736	[1352, 1353]	2169	[1090, 3355]	3602	[676, 249]	5035	[1878, 1662]
737	[1354, 75]	2170	[3356, 3357]	3603	[2385, 672]	5036	[3938, 635]
738	[1355, 1356]	2171	[3358, 2547]	3604	[3860, 1692]	5037	[742, 3959]
739	[1357, 1358]	2172	[3359, 3360]	3605	[1674, 176]	5038	[680, 762]
740	[1359, 1360]	2173	[3087, 933]	3606	[4426, 514]	5039	[5407, 2110]
741	[1361, 1362]	2174	[3361, 3362]	3607	[4427, 795]	5040	[2246, 2399]
742	[1363, 1364]	2175	[3363, 3364]	3608	[3777, 2022]	5041	[1755, 2059]
743	[1365, 1366]	2176	[2868, 1032]	3609	[4029, 4323]	5042	[4151, 669]
744	[1367, 1368]	2177	[3365, 3366]	3610	[4428, 3884]	5043	[5402, 1669]
745	[1369, 1370]	2178	[3367, 3368]	3611	[4429, 2019]	5044	[5408, 2285]
746	[1371, 1372]	2179	[3369, 3370]	3612	[4430, 799]	5045	[2473, 702]
747	[1373, 1374]	2180	[3371, 2523]	3613	[4431, 693]	5046	[4240, 3891]
748	[1375, 1376]	2181	[3372, 3373]	3614	[4149, 898]	5047	[5409, 780]
749	[1377, 1378]	2182	[3374, 3200]	3615	[220, 615]	5048	[5410, 850]
750	[1379, 1380]	2183	[3218, 3306]	3616	[2089, 695]	5049	[4058, 2028]
751	[1381, 1382]	2184	[3375, 936]	3617	[4432, 3855]	5050	[871, 1978]
752	[1383, 1384]	2185	[3376, 3377]	3618	[2190, 833]	5051	[2360, 237]
753	[1255, 1147]	2186	[3378, 1321]	3619	[729, 506]	5052	[720, 3861]
754	[1385, 964]	2187	[3379, 3089]	3620	[4433, 1630]	5053	[4453, 1642]
755	[1386, 1387]	2188	[3009, 1408]	3621	[665, 4016]	5054	[4247, 2396]
756	[1388, 1389]	2189	[3380, 3381]	3622	[1725, 782]	5055	[5411, 3985]
757	[1390, 1391]	2190	[2752, 1521]	3623	[3849, 1658]	5056	[1731, 710]
758	[1392, 1393]	2191	[3382, 3383]	3624	[4434, 2035]	5057	[4169, 1725]

759	[1394, 1395]	2192	[3384, 3385]	3625	[4289, 1839]	5058	[4107, 2049]
760	[1396, 412]	2193	[2878, 1469]	3626	[1811, 1963]	5059	[5412, 1912]
761	[1397, 1398]	2194	[356, 3386]	3627	[1857, 4212]	5060	[4420, 2077]
762	[1399, 1400]	2195	[3387, 2737]	3628	[4435, 191]	5061	[5413, 1885]
763	[1401, 378]	2196	[3388, 339]	3629	[4436, 4323]	5062	[604, 2312]
764	[1402, 1403]	2197	[3389, 2550]	3630	[4437, 1675]	5063	[844, 4056]
765	[1404, 1405]	2198	[3390, 3391]	3631	[4438, 2223]	5064	[3993, 811]
766	[1406, 1108]	2199	[1186, 3392]	3632	[1865, 1941]	5065	[4326, 537]
767	[1407, 1408]	2200	[3393, 3394]	3633	[4439, 1761]	5066	[4119, 1640]
768	[1409, 1410]	2201	[3395, 3396]	3634	[205, 886]	5067	[4057, 2041]
769	[1411, 1412]	2202	[3397, 3398]	3635	[2474, 3924]	5068	[5414, 549]
770	[1413, 1414]	2203	[3399, 3393]	3636	[1762, 1881]	5069	[5415, 643]
771	[1415, 902]	2204	[2919, 2542]	3637	[4440, 1633]	5070	[1854, 528]
772	[1416, 1417]	2205	[1050, 380]	3638	[7, 1913]	5071	[1646, 4050]
773	[1418, 1419]	2206	[3400, 3401]	3639	[1797, 673]	5072	[4413, 622]
774	[1420, 1421]	2207	[3402, 3403]	3640	[2445, 4001]	5073	[4374, 2139]
775	[1422, 1423]	2208	[3404, 3356]	3641	[687, 2040]	5074	[5416, 2313]
776	[1424, 920]	2209	[3405, 2547]	3642	[2245, 1893]	5075	[1780, 2075]
777	[1425, 1225]	2210	[3406, 1447]	3643	[2116, 4441]	5076	[5394, 738]
778	[1426, 1427]	2211	[3407, 3408]	3644	[1734, 4189]	5077	[2374, 1916]
779	[440, 1428]	2212	[3409, 3410]	3645	[1882, 613]	5078	[5417, 820]
780	[1429, 1430]	2213	[1446, 3411]	3646	[3894, 2267]	5079	[3939, 807]
781	[1431, 1432]	2214	[3412, 3413]	3647	[4442, 9]	5080	[4210, 3765]
782	[1433, 25]	2215	[3414, 3415]	3648	[4424, 3948]	5081	[5418, 753]
783	[1434, 1435]	2216	[3416, 3417]	3649	[3971, 772]	5082	[1765, 1674]
784	[1318, 1436]	2217	[1368, 1279]	3650	[4443, 3773]	5083	[2363, 2016]
785	[1066, 1437]	2218	[3418, 3419]	3651	[4444, 178]	5084	[5419, 130]
786	[1438, 1439]	2219	[1203, 3420]	3652	[4445, 3802]	5085	[3798, 1711]
787	[1440, 1336]	2220	[3421, 2679]	3653	[2128, 144]	5086	[3922, 3883]
788	[1441, 1442]	2221	[952, 2974]	3654	[152, 45]	5087	[5420, 1721]
789	[1443, 1444]	2222	[2549, 3333]	3655	[3854, 2116]	5088	[749, 3780]
790	[1445, 1446]	2223	[3422, 3423]	3656	[2138, 2405]	5089	[4384, 2286]
791	[1265, 1447]	2224	[3424, 4]	3657	[2261, 2323]	5090	[5421, 3781]
792	[1448, 1449]	2225	[3425, 3426]	3658	[4446, 3974]	5091	[2482, 792]
793	[1450, 1451]	2226	[3427, 2845]	3659	[4447, 3902]	5092	[5422, 3896]
794	[1452, 1453]	2227	[3428, 1112]	3660	[4448, 2119]	5093	[766, 600]
795	[1454, 1455]	2228	[3429, 3430]	3661	[4449, 863]	5094	[5423, 2198]
796	[1456, 1179]	2229	[3431, 3342]	3662	[4450, 1770]	5095	[1673, 229]
797	[1457, 1458]	2230	[1617, 3432]	3663	[4091, 2437]	5096	[5239, 686]
798	[1459, 1460]	2231	[2711, 433]	3664	[655, 1635]	5097	[5424, 2458]
799	[1461, 1462]	2232	[3433, 83]	3665	[4451, 2087]	5098	[4155, 1773]
800	[1043, 1463]	2233	[2655, 3434]	3666	[2369, 510]	5099	[4478, 653]
801	[1464, 1465]	2234	[3435, 3436]	3667	[1690, 1751]	5100	[5425, 3791]
802	[1466, 1467]	2235	[3437, 2594]	3668	[1794, 2112]	5101	[5322, 2458]

803	[1468, 1469]	2236	[3438, 3439]	3669	[841, 1928]	5102	[4062, 54]
804	[1470, 1471]	2237	[3440, 3441]	3670	[229, 1833]	5103	[1939, 1914]
805	[1472, 1473]	2238	[1068, 3442]	3671	[4452, 1663]	5104	[59, 1930]
806	[1474, 1475]	2239	[302, 3443]	3672	[4453, 826]	5105	[2050, 2323]
807	[1476, 1477]	2240	[1444, 3246]	3673	[1833, 149]	5106	[1833, 1723]
808	[1478, 1479]	2241	[3444, 3445]	3674	[192, 617]	5107	[782, 1895]
809	[1480, 1481]	2242	[3446, 3447]	3675	[4454, 2497]	5108	[1822, 45]
810	[1482, 1483]	2243	[3448, 3449]	3676	[215, 2331]	5109	[2351, 138]
811	[1453, 1484]	2244	[3450, 2856]	3677	[4445, 527]	5110	[5426, 4195]
812	[1485, 1486]	2245	[3451, 305]	3678	[4455, 2131]	5111	[4063, 3833]
813	[1487, 63]	2246	[985, 3452]	3679	[4456, 1680]	5112	[5427, 2029]
814	[1488, 449]	2247	[3453, 3454]	3680	[2198, 4457]	5113	[5428, 539]
815	[1489, 1490]	2248	[3455, 3456]	3681	[4458, 4001]	5114	[580, 1983]
816	[1491, 1492]	2249	[1471, 3457]	3682	[4459, 3999]	5115	[5429, 716]
817	[1493, 1494]	2250	[3458, 3459]	3683	[178, 3820]	5116	[664, 840]
818	[1495, 1496]	2251	[3460, 1282]	3684	[227, 826]	5117	[5430, 3931]
819	[1497, 1498]	2252	[3461, 986]	3685	[4460, 3951]	5118	[2307, 2087]
820	[1499, 1500]	2253	[1005, 1194]	3686	[2455, 3841]	5119	[786, 1760]
821	[429, 1501]	2254	[1135, 3462]	3687	[4461, 4441]	5120	[2208, 3941]
822	[1502, 1085]	2255	[3463, 3464]	3688	[1737, 169]	5121	[206, 1948]
823	[1503, 1504]	2256	[3465, 2499]	3689	[4462, 42]	5122	[5334, 4311]
824	[1505, 1506]	2257	[3466, 2874]	3690	[2110, 708]	5123	[5367, 668]
825	[1507, 1086]	2258	[2516, 3467]	3691	[3811, 3943]	5124	[1952, 4072]
826	[1508, 1509]	2259	[3468, 3469]	3692	[2474, 1789]	5125	[4398, 3787]
827	[1510, 1511]	2260	[3138, 3470]	3693	[784, 4422]	5126	[4074, 4092]
828	[1154, 1512]	2261	[3140, 1418]	3694	[2322, 2051]	5127	[4116, 685]
829	[1513, 1514]	2262	[3471, 3472]	3695	[673, 667]	5128	[4228, 1794]
830	[1515, 902]	2263	[3473, 3474]	3696	[4463, 2059]	5129	[721, 2198]
831	[1516, 1517]	2264	[3475, 3476]	3697	[2477, 156]	5130	[3986, 1834]
832	[1518, 1519]	2265	[3477, 2777]	3698	[4464, 164]	5131	[5427, 32]
833	[1117, 1520]	2266	[3478, 3479]	3699	[4233, 2128]	5132	[5431, 168]
834	[1521, 1522]	2267	[3480, 3481]	3700	[712, 796]	5133	[610, 1687]
835	[1523, 1524]	2268	[954, 1336]	3701	[4465, 820]	5134	[2070, 31]
836	[454, 1525]	2269	[1437, 2764]	3702	[884, 156]	5135	[134, 577]
837	[1526, 1527]	2270	[3482, 1038]	3703	[4466, 738]	5136	[5218, 1696]
838	[1528, 1529]	2271	[3483, 3484]	3704	[642, 2460]	5137	[5418, 3959]
839	[970, 101]	2272	[3485, 2673]	3705	[4467, 4009]	5138	[5277, 3905]
840	[1530, 1531]	2273	[3486, 3487]	3706	[3946, 3967]	5139	[4344, 1761]
841	[1532, 1533]	2274	[3488, 3489]	3707	[236, 1792]	5140	[5432, 2316]
842	[1534, 1535]	2275	[3490, 283]	3708	[4468, 1794]	5141	[1802, 1993]
843	[24, 1536]	2276	[3491, 3492]	3709	[4469, 853]	5142	[5353, 2190]
844	[1537, 1331]	2277	[3493, 1134]	3710	[4470, 3765]	5143	[5433, 1762]
845	[1224, 1538]	2278	[3494, 1450]	3711	[45, 2239]	5144	[3769, 603]
846	[1539, 1540]	2279	[1522, 3495]	3712	[4471, 765]	5145	[1887, 792]

847	[1541, 1542]	2280	[2810, 3496]	3713	[697, 3771]	5146	[2162, 2098]
848	[1543, 1544]	2281	[3497, 3498]	3714	[1764, 682]	5147	[5434, 2117]
849	[1545, 1546]	2282	[3499, 1120]	3715	[4472, 4021]	5148	[4468, 2396]
850	[1547, 1548]	2283	[3500, 3501]	3716	[235, 144]	5149	[508, 1954]
851	[1549, 1550]	2284	[3502, 3503]	3717	[4473, 740]	5150	[5435, 1988]
852	[336, 1551]	2285	[306, 3504]	3718	[1981, 1836]	5151	[4472, 3969]
853	[1552, 1553]	2286	[80, 3446]	3719	[4474, 725]	5152	[5436, 4203]
854	[1490, 1554]	2287	[3505, 3506]	3720	[4015, 666]	5153	[4204, 1717]
855	[1555, 337]	2288	[3507, 3508]	3721	[823, 735]	5154	[5437, 1846]
856	[1556, 1557]	2289	[3509, 3510]	3722	[4475, 3941]	5155	[1874, 648]
857	[1558, 1559]	2290	[3511, 3512]	3723	[1892, 1678]	5156	[5438, 1793]
858	[1560, 1561]	2291	[3513, 1006]	3724	[4476, 3969]	5157	[5439, 133]
859	[1562, 1563]	2292	[3514, 2821]	3725	[4477, 2372]	5158	[615, 42]
860	[1564, 1565]	2293	[3515, 3448]	3726	[4478, 1879]	5159	[777, 662]
861	[1566, 1567]	2294	[3292, 3001]	3727	[4406, 153]	5160	[4121, 818]
862	[1400, 1568]	2295	[3516, 1332]	3728	[548, 2242]	5161	[4100, 2188]
863	[1569, 944]	2296	[2719, 1261]	3729	[4479, 2411]	5162	[5440, 579]
864	[1525, 1570]	2297	[3517, 3518]	3730	[1930, 4020]	5163	[3792, 142]
865	[1571, 1375]	2298	[1178, 1573]	3731	[1732, 4311]	5164	[2329, 191]
866	[1572, 1573]	2299	[3519, 990]	3732	[4480, 1913]	5165	[3797, 715]
867	[1574, 1575]	2300	[3520, 3521]	3733	[2365, 2421]	5166	[2462, 879]
868	[1576, 1577]	2301	[3522, 3379]	3734	[4481, 4482]	5167	[4451, 2178]
869	[1578, 1579]	2302	[3523, 3524]	3735	[4483, 3888]	5168	[2197, 722]
870	[1580, 1581]	2303	[3525, 3526]	3736	[4484, 2248]	5169	[2113, 128]
871	[1582, 1583]	2304	[3527, 3482]	3737	[2108, 3768]	5170	[5441, 219]
872	[1584, 1585]	2305	[3528, 1541]	3738	[136, 3931]	5171	[4153, 1647]
873	[1586, 1587]	2306	[3529, 3530]	3739	[1669, 598]	5172	[2321, 4132]
874	[1588, 289]	2307	[3531, 3237]	3740	[4135, 152]	5173	[3924, 4053]
875	[966, 1589]	2308	[3182, 3532]	3741	[4485, 3895]	5174	[5442, 2157]
876	[1575, 980]	2309	[3355, 437]	3742	[4486, 4098]	5175	[1759, 787]
877	[1590, 1591]	2310	[3206, 3524]	3743	[4487, 547]	5176	[5443, 4200]
878	[442, 1592]	2311	[1176, 3533]	3744	[4488, 1925]	5177	[4163, 4154]
879	[1593, 1594]	2312	[3534, 3535]	3745	[4411, 1692]	5178	[5444, 2136]
880	[1595, 1076]	2313	[3536, 3537]	3746	[4489, 1789]	5179	[1986, 210]
881	[1596, 1597]	2314	[3538, 3539]	3747	[701, 2474]	5180	[5445, 2434]
882	[1598, 1599]	2315	[3540, 3541]	3748	[3838, 4254]	5181	[1642, 2357]
883	[1600, 1601]	2316	[3542, 3543]	3749	[4490, 3993]	5182	[5417, 3952]
884	[1602, 1355]	2317	[1016, 3544]	3750	[4491, 1632]	5183	[226, 10]
885	[1603, 1604]	2318	[3080, 2590]	3751	[1769, 4396]	5184	[4360, 497]
886	[1605, 1606]	2319	[2536, 3545]	3752	[4492, 4493]	5185	[4355, 4276]
887	[1607, 1608]	2320	[3546, 2912]	3753	[4205, 4261]	5186	[5446, 4033]
888	[1609, 1610]	2321	[3547, 1598]	3754	[4494, 1787]	5187	[5447, 555]
889	[1611, 1612]	2322	[3548, 3549]	3755	[690, 3951]	5188	[5448, 1980]
890	[1278, 1410]	2323	[2623, 305]	3756	[4495, 554]	5189	[5449, 2383]

891	[1613, 1614]	2324	[3550, 3551]	3757	[670, 2248]	5190	[2248, 1932]
892	[1615, 1462]	2325	[2802, 3444]	3758	[4496, 3840]	5191	[5450, 1928]
893	[1616, 1617]	2326	[3552, 2996]	3759	[929, 3191]	5192	[1641, 826]
894	[1618, 1619]	2327	[2785, 109]	3760	[4497, 4498]	5193	[5451, 1808]
895	[1620, 1252]	2328	[3553, 1262]	3761	[4499, 3674]	5194	[591, 3888]
896	[1621, 1622]	2329	[3554, 3555]	3762	[4500, 1545]	5195	[5452, 2263]
897	[1623, 1624]	2330	[3556, 1295]	3763	[1592, 4501]	5196	[4415, 4087]
898	[1479, 1625]	2331	[2912, 3557]	3764	[4502, 4503]	5197	[5453, 2312]
899	[1626, 957]	2332	[3558, 397]	3765	[4504, 4505]	5198	[41, 2254]
900	[152, 1627]	2333	[3559, 1568]	3766	[3652, 3683]	5199	[5454, 2232]
901	[1628, 1629]	2334	[3560, 1612]	3767	[4506, 4507]	5200	[1946, 52]
902	[1630, 1631]	2335	[3561, 3562]	3768	[1303, 4508]	5201	[5455, 528]
903	[1632, 1633]	2336	[3563, 3564]	3769	[4509, 4510]	5202	[5456, 3860]
904	[1634, 1635]	2337	[2721, 3565]	3770	[2812, 4511]	5203	[5457, 41]
905	[1636, 161]	2338	[3189, 3566]	3771	[1283, 2926]	5204	[1650, 1974]
906	[1637, 1638]	2339	[3049, 3567]	3772	[2538, 4512]	5205	[5424, 1631]
907	[1639, 1640]	2340	[448, 1516]	3773	[2859, 4513]	5206	[5403, 1960]
908	[1641, 1642]	2341	[1322, 3568]	3774	[4514, 4515]	5207	[1786, 3937]
909	[1643, 1644]	2342	[3569, 3570]	3775	[3419, 4516]	5208	[149, 735]
910	[1642, 1638]	2343	[3571, 951]	3776	[3680, 488]	5209	[1902, 580]
911	[851, 1645]	2344	[3572, 3573]	3777	[4517, 3139]	5210	[5458, 3767]
912	[1646, 1647]	2345	[3574, 3575]	3778	[1542, 4518]	5211	[1934, 4033]
913	[1648, 1649]	2346	[2776, 3576]	3779	[4519, 2763]	5212	[5459, 2200]
914	[1650, 1651]	2347	[3577, 3195]	3780	[1376, 4520]	5213	[4035, 1792]
915	[1652, 1653]	2348	[1200, 3578]	3781	[3321, 3308]	5214	[4460, 691]
916	[1654, 1655]	2349	[3579, 3493]	3782	[3198, 1417]	5215	[4008, 4102]
917	[1656, 610]	2350	[3580, 3581]	3783	[4521, 4522]	5216	[4026, 4038]
918	[1657, 1658]	2351	[3582, 3583]	3784	[2502, 4523]	5217	[5460, 79]
919	[1659, 506]	2352	[3584, 113]	3785	[4524, 1004]	5218	[5461, 3179]
920	[1660, 1661]	2353	[2792, 2577]	3786	[4525, 1500]	5219	[2917, 1334]
921	[1662, 1663]	2354	[2682, 3160]	3787	[4526, 2871]	5220	[5462, 2997]
922	[1664, 1665]	2355	[3585, 3586]	3788	[4527, 4528]	5221	[1184, 5463]
923	[1666, 1667]	2356	[3587, 3588]	3789	[3272, 4529]	5222	[5464, 3615]
924	[1668, 1669]	2357	[22, 1561]	3790	[480, 1372]	5223	[423, 5098]
925	[1670, 1671]	2358	[3589, 3590]	3791	[3236, 4530]	5224	[4607, 429]
926	[1672, 1640]	2359	[1001, 1456]	3792	[316, 4531]	5225	[5465, 1595]
927	[1673, 1674]	2360	[3541, 3591]	3793	[939, 4532]	5226	[3711, 1496]
928	[1675, 1676]	2361	[3592, 2891]	3794	[4533, 4534]	5227	[5466, 5023]
929	[1677, 1678]	2362	[1347, 3530]	3795	[2704, 3463]	5228	[3003, 4856]
930	[1679, 1680]	2363	[3593, 3594]	3796	[4535, 4536]	5229	[4861, 5062]
931	[1681, 1682]	2364	[2506, 2618]	3797	[4537, 1147]	5230	[5467, 2717]
932	[1683, 1684]	2365	[1403, 3595]	3798	[4538, 1151]	5231	[5468, 3110]
933	[1685, 40]	2366	[3596, 3597]	3799	[3128, 3597]	5232	[3413, 1042]
934	[1686, 1687]	2367	[3598, 3599]	3800	[3251, 3536]	5233	[5469, 1005]

935	[1688, 859]	2368	[3600, 2982]	3801	[1309, 4539]	5234	[4890, 3338]
936	[1689, 768]	2369	[3601, 1464]	3802	[4540, 4541]	5235	[5470, 3547]
937	[1690, 1633]	2370	[3576, 3602]	3803	[4542, 306]	5236	[3595, 267]
938	[677, 1691]	2371	[1465, 1168]	3804	[4543, 4544]	5237	[5471, 3644]
939	[1692, 603]	2372	[3297, 1357]	3805	[4545, 2866]	5238	[5472, 396]
940	[848, 1693]	2373	[3603, 3604]	3806	[3381, 4546]	5239	[5473, 5474]
941	[1694, 653]	2374	[3180, 3014]	3807	[3017, 483]	5240	[4699, 3174]
942	[1695, 1696]	2375	[2696, 3605]	3808	[2940, 4547]	5241	[5475, 3447]
943	[1697, 1632]	2376	[3606, 3225]	3809	[4548, 4549]	5242	[5476, 5477]
944	[1698, 1699]	2377	[3607, 3608]	3810	[1581, 4550]	5243	[2531, 279]
945	[1700, 209]	2378	[2654, 3609]	3811	[2834, 4551]	5244	[5001, 1611]
946	[1701, 60]	2379	[3610, 3611]	3812	[3147, 4552]	5245	[4599, 5478]
947	[1702, 1703]	2380	[3612, 3207]	3813	[4553, 4554]	5246	[3322, 3747]
948	[1704, 1705]	2381	[3613, 445]	3814	[3597, 341]	5247	[4823, 3130]
949	[1706, 1707]	2382	[3614, 1109]	3815	[4555, 1291]	5248	[5479, 5480]
950	[1708, 140]	2383	[3615, 3616]	3816	[4556, 993]	5249	[4654, 4544]
951	[1709, 1710]	2384	[3617, 3618]	3817	[4557, 4558]	5250	[478, 454]
952	[1711, 607]	2385	[1047, 1422]	3818	[4559, 99]	5251	[5481, 5482]
953	[1712, 173]	2386	[3619, 257]	3819	[3636, 3619]	5252	[5483, 5484]
954	[1713, 1714]	2387	[3620, 3621]	3820	[413, 4560]	5253	[260, 5485]
955	[1715, 1716]	2388	[3622, 1615]	3821	[4561, 3677]	5254	[5486, 3187]
956	[1717, 1718]	2389	[3113, 3623]	3822	[4562, 4563]	5255	[1514, 3068]
957	[1719, 1720]	2390	[3624, 3625]	3823	[4564, 4565]	5256	[4975, 2860]
958	[859, 1721]	2391	[3626, 3627]	3824	[915, 1323]	5257	[5487, 5207]
959	[1722, 1723]	2392	[88, 3045]	3825	[3544, 4566]	5258	[3187, 5099]
960	[1724, 1725]	2393	[3628, 3629]	3826	[4567, 3427]	5259	[5488, 3248]
961	[1726, 188]	2394	[3630, 1251]	3827	[4568, 3001]	5260	[5489, 285]
962	[1727, 1728]	2395	[3631, 3632]	3828	[4569, 4570]	5261	[5490, 4990]
963	[1729, 1730]	2396	[3633, 3461]	3829	[4571, 1241]	5262	[5491, 2727]
964	[1731, 241]	2397	[3267, 3634]	3830	[1601, 4572]	5263	[5492, 2570]
965	[1732, 1733]	2398	[2652, 3635]	3831	[4573, 4574]	5264	[1473, 1136]
966	[1734, 1735]	2399	[987, 3636]	3832	[4575, 2533]	5265	[5493, 4685]
967	[1736, 669]	2400	[3637, 3638]	3833	[4576, 4577]	5266	[5494, 910]
968	[1737, 58]	2401	[3639, 3570]	3834	[1152, 3011]	5267	[5495, 1290]
969	[1738, 1739]	2402	[254, 3640]	3835	[4578, 2932]	5268	[5010, 5496]
970	[1740, 204]	2403	[3583, 3641]	3836	[4579, 4518]	5269	[5497, 5498]
971	[1741, 1639]	2404	[3642, 3643]	3837	[4580, 3285]	5270	[1064, 3118]
972	[1742, 1743]	2405	[3396, 3644]	3838	[4581, 4582]	5271	[5016, 2951]
973	[749, 1744]	2406	[3645, 3646]	3839	[4583, 4584]	5272	[4737, 3077]
974	[137, 1745]	2407	[3647, 3648]	3840	[4585, 3698]	5273	[2997, 420]
975	[1746, 1747]	2408	[1082, 3649]	3841	[4586, 4587]	5274	[4908, 5499]
976	[822, 1748]	2409	[3650, 2511]	3842	[1551, 3413]	5275	[4572, 492]
977	[781, 531]	2410	[3651, 3652]	3843	[2946, 1098]	5276	[5500, 5501]
978	[1749, 1750]	2411	[3176, 3653]	3844	[4588, 1518]	5277	[3616, 1118]

979	[1751, 1752]	2412	[2678, 3639]	3845	[4589, 4590]	5278	[5502, 3616]
980	[879, 1753]	2413	[2591, 3654]	3846	[4591, 3194]	5279	[5503, 2645]
981	[1754, 725]	2414	[2731, 3655]	3847	[3281, 3399]	5280	[5504, 3332]
982	[1755, 1742]	2415	[1313, 3656]	3848	[3566, 3107]	5281	[5505, 338]
983	[1756, 643]	2416	[1599, 3657]	3849	[4518, 4592]	5282	[5506, 1099]
984	[1757, 1758]	2417	[3658, 3659]	3850	[4593, 4594]	5283	[5507, 3084]
985	[1759, 1760]	2418	[3660, 3661]	3851	[4595, 3525]	5284	[3638, 1106]
986	[1761, 1762]	2419	[3662, 3050]	3852	[4596, 4597]	5285	[5508, 3124]
987	[1669, 577]	2420	[3663, 3664]	3853	[3474, 1586]	5286	[5509, 921]
988	[1763, 1764]	2421	[3665, 3666]	3854	[4598, 1566]	5287	[5510, 942]
989	[1765, 229]	2422	[3667, 2883]	3855	[958, 4599]	5288	[5018, 1157]
990	[235, 1766]	2423	[3668, 3669]	3856	[4503, 4600]	5289	[4884, 5511]
991	[62, 1767]	2424	[3259, 3670]	3857	[3316, 940]	5290	[1201, 4673]
992	[1768, 794]	2425	[3671, 2819]	3858	[4601, 4545]	5291	[5512, 5513]
993	[1769, 1770]	2426	[3672, 3254]	3859	[4602, 4509]	5292	[3142, 5514]
994	[1771, 1772]	2427	[3135, 3673]	3860	[4603, 4604]	5293	[5515, 3205]
995	[1648, 1773]	2428	[96, 3674]	3861	[1285, 2849]	5294	[5516, 2577]
996	[1774, 1775]	2429	[3675, 3676]	3862	[1111, 4605]	5295	[5183, 4934]
997	[1776, 605]	2430	[1080, 2603]	3863	[4606, 4607]	5296	[4981, 3091]
998	[1777, 1778]	2431	[1372, 3677]	3864	[4608, 4609]	5297	[5517, 5046]
999	[1779, 691]	2432	[3678, 3679]	3865	[4610, 4611]	5298	[5518, 5141]
1000	[1780, 1781]	2433	[411, 3680]	3866	[4612, 2975]	5299	[5118, 1211]
1001	[1782, 1783]	2434	[3681, 3682]	3867	[4613, 2679]	5300	[4895, 3538]
1002	[1784, 170]	2435	[3192, 3123]	3868	[4614, 3715]	5301	[5519, 5520]
1003	[1785, 848]	2436	[3683, 3684]	3869	[4615, 4616]	5302	[5521, 5522]
1004	[1786, 1787]	2437	[3685, 3686]	3870	[1140, 4617]	5303	[5523, 5524]
1005	[1788, 821]	2438	[3687, 3688]	3871	[304, 4618]	5304	[5525, 5526]
1006	[702, 1789]	2439	[3689, 3690]	3872	[4619, 4620]	5305	[3282, 950]
1007	[547, 1790]	2440	[3691, 3316]	3873	[3487, 4621]	5306	[1105, 1548]
1008	[164, 1791]	2441	[1250, 3692]	3874	[4622, 4623]	5307	[5527, 3098]
1009	[1792, 1793]	2442	[415, 3693]	3875	[4624, 2618]	5308	[4550, 1298]
1010	[1794, 1795]	2443	[3694, 3695]	3876	[3304, 4625]	5309	[4826, 5528]
1011	[1796, 1797]	2444	[3696, 1204]	3877	[2528, 2601]	5310	[4675, 1124]
1012	[811, 1798]	2445	[3386, 3697]	3878	[4626, 3653]	5311	[3121, 1430]
1013	[1799, 1800]	2446	[381, 2754]	3879	[4627, 4628]	5312	[3748, 4769]
1014	[1801, 1802]	2447	[3530, 3698]	3880	[4629, 4630]	5313	[1412, 3268]
1015	[1803, 1804]	2448	[3699, 3545]	3881	[4631, 4632]	5314	[5529, 2606]
1016	[230, 1805]	2449	[2832, 2794]	3882	[4633, 3497]	5315	[371, 5530]
1017	[502, 1804]	2450	[1311, 1275]	3883	[4634, 4635]	5316	[5531, 5532]
1018	[1764, 742]	2451	[3506, 3700]	3884	[474, 971]	5317	[3012, 3562]
1019	[1806, 14]	2452	[3701, 3702]	3885	[4636, 1039]	5318	[5533, 5534]
1020	[1807, 1808]	2453	[3703, 3704]	3886	[4637, 4638]	5319	[2774, 2760]
1021	[1809, 1810]	2454	[2969, 3020]	3887	[4639, 4640]	5320	[3575, 5535]
1022	[1811, 1812]	2455	[1290, 95]	3888	[4641, 3186]	5321	[5536, 5537]

1023	[1813, 1814]	2456	[3705, 3706]	3889	[1137, 4642]	5322	[5538, 3127]
1024	[1815, 1816]	2457	[3447, 3645]	3890	[328, 4643]	5323	[5539, 3212]
1025	[1817, 1775]	2458	[2584, 1478]	3891	[4644, 3091]	5324	[4842, 3661]
1026	[1818, 1819]	2459	[3484, 968]	3892	[4645, 920]	5325	[5540, 1556]
1027	[662, 1820]	2460	[3707, 3708]	3893	[4646, 3000]	5326	[5541, 3304]
1028	[1821, 1822]	2461	[3709, 2716]	3894	[4647, 4648]	5327	[5542, 5543]
1029	[790, 1676]	2462	[3710, 3711]	3895	[4649, 4650]	5328	[3686, 2971]
1030	[1823, 588]	2463	[3712, 3713]	3896	[3055, 990]	5329	[5544, 5135]
1031	[1824, 1825]	2464	[989, 3714]	3897	[4651, 2849]	5330	[2966, 5492]
1032	[1826, 865]	2465	[3715, 3716]	3898	[4652, 105]	5331	[5545, 3027]
1033	[519, 886]	2466	[3717, 422]	3899	[4653, 4654]	5332	[5546, 1587]
1034	[1827, 792]	2467	[1263, 3718]	3900	[4655, 4656]	5333	[5547, 286]
1035	[1828, 215]	2468	[3027, 2894]	3901	[4657, 4658]	5334	[5548, 4963]
1036	[1829, 1830]	2469	[3719, 3720]	3902	[4659, 3609]	5335	[5549, 1369]
1037	[1831, 1832]	2470	[3721, 1038]	3903	[4660, 4661]	5336	[3309, 997]
1038	[1674, 1833]	2471	[1300, 374]	3904	[4584, 4662]	5337	[401, 4951]
1039	[735, 1834]	2472	[3722, 3723]	3905	[2800, 4663]	5338	[3713, 2622]
1040	[1835, 1836]	2473	[3724, 2771]	3906	[4664, 1376]	5339	[2826, 3039]
1041	[1837, 1714]	2474	[3725, 3726]	3907	[4665, 2543]	5340	[964, 3663]
1042	[1838, 1839]	2475	[3635, 2707]	3908	[4666, 4667]	5341	[4871, 2688]
1043	[1840, 1841]	2476	[3727, 1536]	3909	[4668, 3336]	5342	[5496, 5184]
1044	[1842, 898]	2477	[409, 3728]	3910	[3533, 1184]	5343	[3467, 2546]
1045	[730, 507]	2478	[3729, 2885]	3911	[2844, 3184]	5344	[4590, 5533]
1046	[1843, 1844]	2479	[1395, 3730]	3912	[4669, 1582]	5345	[5550, 2567]
1047	[1845, 1846]	2480	[2529, 1392]	3913	[1244, 3622]	5346	[5551, 3539]
1048	[1847, 1848]	2481	[3408, 3731]	3914	[2956, 1549]	5347	[5552, 5553]
1049	[1849, 1850]	2482	[3732, 3733]	3915	[925, 4670]	5348	[5554, 1061]
1050	[1851, 1852]	2483	[3734, 3735]	3916	[444, 4506]	5349	[5555, 3739]
1051	[1853, 1661]	2484	[3736, 3737]	3917	[3436, 4671]	5350	[4906, 917]
1052	[1854, 1855]	2485	[68, 3738]	3918	[4672, 4673]	5351	[4746, 1359]
1053	[1856, 535]	2486	[3739, 3242]	3919	[4674, 3641]	5352	[5556, 1488]
1054	[1857, 1810]	2487	[3740, 2591]	3920	[452, 4675]	5353	[4821, 3114]
1055	[1858, 1751]	2488	[3741, 3742]	3921	[4676, 1157]	5354	[5038, 2911]
1056	[1859, 1860]	2489	[3743, 3744]	3922	[4677, 4678]	5355	[5557, 5558]
1057	[1861, 1862]	2490	[3745, 1527]	3923	[4679, 4680]	5356	[1074, 5559]
1058	[1863, 1864]	2491	[3746, 3303]	3924	[3653, 4681]	5357	[5560, 3160]
1059	[1865, 247]	2492	[3747, 3748]	3925	[3726, 1475]	5358	[5561, 1522]
1060	[1866, 1867]	2493	[3749, 3210]	3926	[4682, 4683]	5359	[4939, 5021]
1061	[1868, 1869]	2494	[3750, 3751]	3927	[252, 385]	5360	[5562, 5563]
1062	[1870, 1871]	2495	[3752, 3753]	3928	[298, 414]	5361	[2870, 5172]
1063	[1872, 1687]	2496	[3754, 3755]	3929	[4684, 2833]	5362	[3489, 5564]
1064	[519, 700]	2497	[3756, 3757]	3930	[1449, 4685]	5363	[5565, 5566]
1065	[1873, 1874]	2498	[3758, 3258]	3931	[268, 2616]	5364	[3670, 5070]
1066	[1875, 1876]	2499	[2324, 2032]	3932	[3353, 1278]	5365	[2609, 3686]

1067	[1832, 1877]	2500	[194, 2371]	3933	[1054, 111]	5366	[1565, 3626]
1068	[134, 598]	2501	[3759, 3760]	3934	[1217, 4686]	5367	[5567, 4596]
1069	[1878, 689]	2502	[882, 1851]	3935	[4687, 4688]	5368	[5568, 258]
1070	[1879, 226]	2503	[3761, 3762]	3936	[4689, 4560]	5369	[2818, 4521]
1071	[1880, 1881]	2504	[3763, 867]	3937	[4690, 4691]	5370	[4944, 2798]
1072	[1882, 1883]	2505	[3764, 3765]	3938	[4692, 4693]	5371	[5569, 1017]
1073	[1884, 1885]	2506	[3766, 3767]	3939	[4694, 4695]	5372	[5570, 3046]
1074	[1691, 1886]	2507	[521, 3768]	3940	[4696, 1508]	5373	[5571, 2691]
1075	[1887, 1888]	2508	[2227, 3769]	3941	[1251, 3100]	5374	[5572, 2991]
1076	[1889, 1890]	2509	[3770, 3771]	3942	[4697, 3308]	5375	[3742, 3550]
1077	[1891, 1892]	2510	[2352, 2434]	3943	[3646, 317]	5376	[338, 3]
1078	[1893, 154]	2511	[3772, 2149]	3944	[4698, 4699]	5377	[1553, 5573]
1079	[1894, 1895]	2512	[3773, 3774]	3945	[2929, 4700]	5378	[5574, 5575]
1080	[1896, 1897]	2513	[3775, 3776]	3946	[4701, 4702]	5379	[4708, 1266]
1081	[1898, 1899]	2514	[2330, 3766]	3947	[4703, 4704]	5380	[3641, 5095]
1082	[1900, 1901]	2515	[3777, 1660]	3948	[4705, 4706]	5381	[5576, 3635]
1083	[1902, 1903]	2516	[156, 738]	3949	[4707, 4708]	5382	[5577, 5491]
1084	[1904, 1905]	2517	[2163, 1892]	3950	[3594, 4709]	5383	[5563, 3131]
1085	[1744, 1906]	2518	[848, 3778]	3951	[4710, 2814]	5384	[3368, 283]
1086	[1907, 1908]	2519	[3779, 2247]	3952	[4711, 3643]	5385	[5578, 5579]
1087	[1909, 1910]	2520	[2312, 2139]	3953	[4712, 3064]	5386	[1625, 3204]
1088	[1911, 1912]	2521	[3780, 1906]	3954	[1455, 1595]	5387	[5028, 3522]
1089	[1913, 201]	2522	[2434, 2103]	3955	[4713, 3115]	5388	[5580, 1578]
1090	[1914, 819]	2523	[1708, 2095]	3956	[1484, 4613]	5389	[5581, 3349]
1091	[1915, 1916]	2524	[211, 2159]	3957	[4714, 4597]	5390	[4577, 909]
1092	[1917, 1918]	2525	[2012, 853]	3958	[4715, 4716]	5391	[5114, 2564]
1093	[1919, 1920]	2526	[570, 3781]	3959	[1335, 3194]	5392	[5582, 4700]
1094	[1921, 1922]	2527	[3782, 722]	3960	[4717, 1114]	5393	[2772, 5583]
1095	[1923, 877]	2528	[2350, 2150]	3961	[1535, 3598]	5394	[5584, 3691]
1096	[1924, 1925]	2529	[40, 2286]	3962	[4718, 4719]	5395	[3501, 391]
1097	[1926, 1927]	2530	[3783, 3784]	3963	[3462, 4720]	5396	[5585, 3544]
1098	[1928, 1929]	2531	[3785, 545]	3964	[1133, 2574]	5397	[1307, 4567]
1099	[1930, 1931]	2532	[3786, 3787]	3965	[4721, 3416]	5398	[434, 4680]
1100	[757, 1932]	2533	[3788, 1720]	3966	[3735, 3511]	5399	[3599, 4589]
1101	[1933, 694]	2534	[2112, 3789]	3967	[4722, 3352]	5400	[1287, 913]
1102	[1934, 1935]	2535	[3790, 128]	3968	[905, 1385]	5401	[3211, 5487]
1103	[1936, 1937]	2536	[2249, 3791]	3969	[4723, 2568]	5402	[3195, 1062]
1104	[1938, 1939]	2537	[3792, 3793]	3970	[1360, 3724]	5403	[4952, 3271]
1105	[1940, 1808]	2538	[3794, 210]	3971	[1531, 4724]	5404	[2669, 75]
1106	[246, 1941]	2539	[3795, 1819]	3972	[4725, 2619]	5405	[1378, 3410]
1107	[1913, 1942]	2540	[3796, 164]	3973	[4726, 4727]	5406	[5586, 3668]
1108	[1943, 1944]	2541	[3797, 620]	3974	[4728, 4729]	5407	[5587, 3443]
1109	[1712, 539]	2542	[3798, 622]	3975	[1163, 3046]	5408	[981, 2930]
1110	[1945, 507]	2543	[528, 2193]	3976	[4730, 4731]	5409	[5588, 2894]

1111	[814, 1946]	2544	[1723, 150]	3977	[3178, 1067]	5410	[5589, 3578]
1112	[1947, 1948]	2545	[3799, 1773]	3978	[3423, 3280]	5411	[1150, 3019]
1113	[751, 1949]	2546	[177, 185]	3979	[4732, 282]	5412	[5590, 3350]
1114	[133, 1669]	2547	[2098, 3800]	3980	[4733, 2774]	5413	[5591, 4828]
1115	[1868, 1950]	2548	[1908, 2199]	3981	[4734, 4735]	5414	[2819, 1011]
1116	[1951, 1952]	2549	[712, 3801]	3982	[4736, 4737]	5415	[4597, 4541]
1117	[1953, 1954]	2550	[2375, 194]	3983	[4738, 2847]	5416	[3702, 2515]
1118	[1955, 586]	2551	[526, 3802]	3984	[4739, 4740]	5417	[5592, 3328]
1119	[1943, 1956]	2552	[3803, 677]	3985	[4741, 4742]	5418	[5593, 5594]
1120	[1957, 1958]	2553	[1847, 3804]	3986	[4743, 4744]	5419	[5595, 5596]
1121	[1959, 1960]	2554	[3805, 625]	3987	[4745, 4746]	5420	[3659, 361]
1122	[1961, 1812]	2555	[3806, 633]	3988	[4747, 3286]	5421	[5597, 5598]
1123	[1962, 1963]	2556	[3807, 2086]	3989	[4748, 1238]	5422	[2902, 5599]
1124	[763, 752]	2557	[1677, 3808]	3990	[4749, 4750]	5423	[2857, 1020]
1125	[1964, 1965]	2558	[812, 896]	3991	[4751, 4752]	5424	[5600, 5052]
1126	[1966, 1967]	2559	[1645, 819]	3992	[4753, 2813]	5425	[5601, 1089]
1127	[1968, 1969]	2560	[3809, 1711]	3993	[312, 4754]	5426	[1228, 4554]
1128	[1970, 1965]	2561	[2098, 558]	3994	[4755, 4756]	5427	[5602, 3148]
1129	[1971, 1972]	2562	[3810, 3811]	3995	[30, 4757]	5428	[2895, 323]
1130	[1973, 1974]	2563	[599, 2229]	3996	[4758, 992]	5429	[1084, 5603]
1131	[1975, 1976]	2564	[3812, 2390]	3997	[2708, 4759]	5430	[5604, 2831]
1132	[1977, 1978]	2565	[1983, 2238]	3998	[4760, 4761]	5431	[3200, 2897]
1133	[1979, 1980]	2566	[140, 1713]	3999	[4762, 4567]	5432	[5207, 3704]
1134	[1981, 1982]	2567	[2156, 2055]	4000	[3111, 4763]	5433	[4763, 5082]
1135	[1903, 1983]	2568	[2218, 3813]	4001	[4764, 4765]	5434	[5605, 5606]
1136	[216, 542]	2569	[3814, 171]	4002	[3643, 1078]	5435	[5607, 5608]
1137	[1984, 801]	2570	[3815, 3816]	4003	[4766, 1148]	5436	[3327, 5609]
1138	[1985, 1986]	2571	[3817, 3789]	4004	[4767, 3435]	5437	[2990, 4792]
1139	[548, 1987]	2572	[3818, 664]	4005	[4768, 4769]	5438	[3573, 5610]
1140	[720, 1988]	2573	[3819, 3820]	4006	[4770, 1341]	5439	[5611, 4507]
1141	[1989, 1714]	2574	[2068, 3821]	4007	[4771, 4772]	5440	[5612, 3432]
1142	[1990, 1991]	2575	[3822, 1758]	4008	[3420, 3485]	5441	[4761, 1515]
1143	[1992, 1993]	2576	[165, 1716]	4009	[4773, 4774]	5442	[5613, 1276]
1144	[1994, 853]	2577	[2121, 1836]	4010	[2999, 4775]	5443	[5614, 2685]
1145	[1995, 1996]	2578	[2119, 172]	4011	[4776, 4777]	5444	[5615, 3563]
1146	[1997, 746]	2579	[3823, 50]	4012	[1214, 2661]	5445	[977, 3260]
1147	[842, 1998]	2580	[1907, 2147]	4013	[3038, 3104]	5446	[993, 387]
1148	[650, 1999]	2581	[3824, 3825]	4014	[3591, 951]	5447	[1579, 1023]
1149	[2000, 189]	2582	[3826, 1787]	4015	[4778, 4779]	5448	[3586, 4635]
1150	[2001, 2002]	2583	[3827, 671]	4016	[4780, 4781]	5449	[5616, 5002]
1151	[2003, 2004]	2584	[3773, 3828]	4017	[4782, 1584]	5450	[4969, 478]
1152	[2005, 2006]	2585	[3829, 172]	4018	[4783, 1270]	5451	[5617, 1163]
1153	[2007, 2008]	2586	[3830, 836]	4019	[3570, 3695]	5452	[5618, 1444]
1154	[2009, 2010]	2587	[3831, 1629]	4020	[4784, 2847]	5453	[5619, 3394]

1155	[2011, 1678]	2588	[3832, 3833]	4021	[4785, 1526]	5454	[5620, 3325]
1156	[2012, 593]	2589	[3834, 3835]	4022	[1061, 4569]	5455	[5621, 971]
1157	[805, 2013]	2590	[138, 2403]	4023	[1624, 4786]	5456	[5622, 2616]
1158	[796, 2014]	2591	[2483, 3778]	4024	[4787, 3417]	5457	[5623, 85]
1159	[2015, 2016]	2592	[3836, 3837]	4025	[4788, 2840]	5458	[5624, 4857]
1160	[199, 2017]	2593	[3838, 2275]	4026	[4789, 346]	5459	[5625, 3517]
1161	[2018, 2019]	2594	[3839, 3840]	4027	[1103, 4790]	5460	[5626, 2118]
1162	[2020, 2021]	2595	[3841, 2039]	4028	[4791, 4784]	5461	[5627, 138]
1163	[2022, 2023]	2596	[3842, 2448]	4029	[4792, 4793]	5462	[3865, 4377]
1164	[2024, 2025]	2597	[12, 3843]	4030	[4794, 2551]	5463	[884, 2372]
1165	[2026, 710]	2598	[3844, 1743]	4031	[3034, 4795]	5464	[5628, 2089]
1166	[553, 772]	2599	[3845, 2428]	4032	[3621, 3214]	5465	[2057, 2145]
1167	[2027, 2028]	2600	[3846, 715]	4033	[4796, 4797]	5466	[4054, 32]
1168	[2029, 2030]	2601	[2235, 1892]	4034	[956, 3054]	5467	[4110, 2085]
1169	[2031, 2014]	2602	[3847, 201]	4035	[1161, 3175]	5468	[5285, 3801]
1170	[1849, 2032]	2603	[1895, 816]	4036	[4798, 2968]	5469	[4466, 2373]
1171	[2033, 861]	2604	[3848, 825]	4037	[4799, 3714]	5470	[5629, 2347]
1172	[2034, 2035]	2605	[523, 3849]	4038	[4800, 3600]	5471	[771, 554]
1173	[2036, 848]	2606	[3850, 1949]	4039	[4511, 3575]	5472	[681, 742]
1174	[2037, 717]	2607	[1785, 2483]	4040	[3352, 4801]	5473	[5630, 1747]
1175	[2038, 2039]	2608	[798, 2195]	4041	[4802, 4803]	5474	[671, 758]
1176	[2040, 2041]	2609	[148, 687]	4042	[4558, 2886]	5475	[4037, 865]
1177	[2042, 2043]	2610	[3851, 3784]	4043	[1092, 4804]	5476	[5631, 4294]
1178	[2044, 245]	2611	[1681, 1916]	4044	[4805, 4806]	5477	[2432, 1890]
1179	[1783, 656]	2612	[2041, 3852]	4045	[4807, 4808]	5478	[2326, 842]
1180	[189, 1652]	2613	[3853, 1767]	4046	[2904, 4809]	5479	[5632, 40]
1181	[2045, 1984]	2614	[3854, 860]	4047	[2684, 4810]	5480	[838, 132]
1182	[2046, 2047]	2615	[1802, 3766]	4048	[4811, 3143]	5481	[5633, 1676]
1183	[2048, 2013]	2616	[523, 3855]	4049	[4812, 4813]	5482	[2087, 2249]
1184	[2041, 2049]	2617	[708, 2108]	4050	[3227, 4814]	5483	[5634, 787]
1185	[2050, 2051]	2618	[3765, 3856]	4051	[2614, 1346]	5484	[1890, 4085]
1186	[2052, 2053]	2619	[764, 3857]	4052	[4815, 4816]	5485	[630, 2085]
1187	[2054, 2055]	2620	[3858, 3792]	4053	[4817, 4695]	5486	[2439, 739]
1188	[891, 2056]	2621	[3859, 3860]	4054	[4818, 4819]	5487	[4066, 827]
1189	[2057, 764]	2622	[1994, 593]	4055	[4820, 4821]	5488	[5635, 166]
1190	[1719, 669]	2623	[3771, 3861]	4056	[4822, 4823]	5489	[4161, 557]
1191	[1909, 2006]	2624	[2153, 3862]	4057	[4824, 471]	5490	[5636, 612]
1192	[2058, 2059]	2625	[639, 814]	4058	[4825, 4826]	5491	[656, 2246]
1193	[2060, 2061]	2626	[3863, 833]	4059	[4827, 3724]	5492	[3984, 2345]
1194	[2062, 178]	2627	[638, 1976]	4060	[1210, 4828]	5493	[4448, 171]
1195	[2063, 2056]	2628	[1756, 2460]	4061	[2779, 4829]	5494	[2042, 744]
1196	[2064, 2065]	2629	[3864, 820]	4062	[3184, 4830]	5495	[3997, 2193]
1197	[2056, 2066]	2630	[3865, 732]	4063	[4831, 4832]	5496	[3763, 196]
1198	[2067, 764]	2631	[2346, 2004]	4064	[4833, 2721]	5497	[5637, 619]

1199	[2068, 2069]	2632	[215, 648]	4065	[4834, 4608]	5498	[651, 2021]
1200	[813, 2070]	2633	[3866, 153]	4066	[4835, 4836]	5499	[1893, 3776]
1201	[555, 2071]	2634	[3866, 1893]	4067	[4837, 3015]	5500	[5638, 2421]
1202	[2072, 2073]	2635	[2156, 3856]	4068	[4838, 1244]	5501	[883, 1852]
1203	[2074, 2075]	2636	[3867, 3868]	4069	[2706, 4839]	5502	[4399, 1974]
1204	[2076, 2077]	2637	[2458, 2016]	4070	[1423, 2736]	5503	[5639, 142]
1205	[2059, 1743]	2638	[3869, 3870]	4071	[3331, 3250]	5504	[5267, 2094]
1206	[2078, 843]	2639	[3871, 200]	4072	[3629, 3110]	5505	[5323, 819]
1207	[2079, 2080]	2640	[3872, 3873]	4073	[4840, 4663]	5506	[4216, 2127]
1208	[2081, 45]	2641	[3874, 660]	4074	[4841, 74]	5507	[5640, 1950]
1209	[2082, 1752]	2642	[3875, 2483]	4075	[3605, 1375]	5508	[5641, 238]
1210	[2083, 2084]	2643	[3876, 564]	4076	[352, 4842]	5509	[3799, 1649]
1211	[2085, 2086]	2644	[3867, 635]	4077	[4843, 3592]	5510	[5246, 2446]
1212	[2087, 2088]	2645	[53, 2475]	4078	[3479, 4701]	5511	[3764, 2156]
1213	[1933, 2089]	2646	[1761, 549]	4079	[4844, 2624]	5512	[5642, 3793]
1214	[2090, 211]	2647	[3877, 2184]	4080	[2765, 3666]	5513	[1783, 537]
1215	[2064, 2091]	2648	[692, 1684]	4081	[4845, 3288]	5514	[2427, 868]
1216	[2092, 2069]	2649	[2229, 2428]	4082	[4846, 4847]	5515	[5643, 1725]
1217	[1643, 818]	2650	[2145, 765]	4083	[110, 3543]	5516	[3814, 2119]
1218	[2093, 2094]	2651	[3878, 2474]	4084	[4848, 4849]	5517	[5644, 2022]
1219	[139, 2095]	2652	[3879, 3880]	4085	[3679, 4850]	5518	[5645, 791]
1220	[2096, 511]	2653	[3881, 1645]	4086	[4851, 1317]	5519	[5646, 1839]
1221	[2097, 2098]	2654	[1796, 148]	4087	[4852, 4853]	5520	[516, 1718]
1222	[2099, 1912]	2655	[537, 2246]	4088	[4854, 2667]	5521	[5647, 207]
1223	[2100, 2101]	2656	[3882, 3883]	4089	[3738, 2747]	5522	[1717, 776]
1224	[2102, 1781]	2657	[2284, 3884]	4090	[4855, 4856]	5523	[5648, 154]
1225	[572, 2103]	2658	[3885, 3821]	4091	[4857, 3197]	5524	[2178, 2088]
1226	[2104, 1721]	2659	[3886, 14]	4092	[4858, 3260]	5525	[5649, 4302]
1227	[2105, 654]	2660	[3887, 3888]	4093	[4859, 1134]	5526	[2056, 789]
1228	[2106, 1665]	2661	[3772, 2110]	4094	[4860, 4861]	5527	[5311, 749]
1229	[2107, 2108]	2662	[3889, 1949]	4095	[4706, 2960]	5528	[1845, 612]
1230	[2109, 2110]	2663	[3890, 3891]	4096	[1540, 3330]	5529	[5650, 2065]
1231	[2111, 2112]	2664	[3892, 502]	4097	[4862, 4863]	5530	[2205, 645]
1232	[2113, 2114]	2665	[3893, 1981]	4098	[4864, 1162]	5531	[5651, 509]
1233	[2115, 2116]	2666	[3894, 3895]	4099	[4865, 4866]	5532	[1936, 546]
1234	[146, 2117]	2667	[1969, 3896]	4100	[3341, 4867]	5533	[197, 3999]
1235	[566, 2118]	2668	[3897, 2095]	4101	[4868, 4869]	5534	[2454, 4349]
1236	[568, 2119]	2669	[840, 50]	4102	[3472, 357]	5535	[4227, 2342]
1237	[2120, 1868]	2670	[3898, 51]	4103	[4870, 4871]	5536	[5652, 53]
1238	[639, 1730]	2671	[3899, 718]	4104	[4872, 1405]	5537	[566, 2233]
1239	[2121, 1982]	2672	[1628, 3851]	4105	[4873, 4874]	5538	[5653, 3851]
1240	[2122, 510]	2673	[3900, 3804]	4106	[4875, 4876]	5539	[5654, 4206]
1241	[1713, 566]	2674	[3901, 3902]	4107	[4877, 4878]	5540	[5655, 527]
1242	[2123, 889]	2675	[3903, 2252]	4108	[4879, 4880]	5541	[644, 2206]

1243	[2124, 2125]	2676	[2410, 2330]	4109	[1086, 4881]	5542	[5656, 3800]
1244	[1723, 735]	2677	[3904, 3905]	4110	[4882, 3176]	5543	[62, 872]
1245	[2126, 2127]	2678	[2175, 3906]	4111	[4883, 4884]	5544	[5657, 1691]
1246	[2128, 1766]	2679	[57, 169]	4112	[2542, 321]	5545	[4345, 1748]
1247	[2129, 2040]	2680	[1953, 509]	4113	[4885, 4602]	5546	[5234, 210]
1248	[2130, 2131]	2681	[586, 694]	4114	[4886, 4711]	5547	[5284, 145]
1249	[2132, 834]	2682	[54, 1746]	4115	[4887, 4575]	5548	[2187, 878]
1250	[2133, 512]	2683	[3907, 46]	4116	[4888, 3094]	5549	[5658, 4179]
1251	[574, 2134]	2684	[3908, 3909]	4117	[4889, 4890]	5550	[2404, 3787]
1252	[2135, 646]	2685	[1918, 3910]	4118	[4891, 4892]	5551	[5659, 503]
1253	[785, 2136]	2686	[762, 32]	4119	[4635, 2507]	5552	[5660, 4087]
1254	[2137, 842]	2687	[3911, 2077]	4120	[4605, 3579]	5553	[4009, 3975]
1255	[146, 601]	2688	[224, 877]	4121	[1358, 3224]	5554	[2183, 2475]
1256	[2138, 1747]	2689	[2127, 840]	4122	[4893, 3311]	5555	[5661, 3924]
1257	[605, 2139]	2690	[3912, 1788]	4123	[4894, 2611]	5556	[4138, 758]
1258	[2140, 2141]	2691	[733, 689]	4124	[3051, 4895]	5557	[5662, 3947]
1259	[2142, 2143]	2692	[3913, 2005]	4125	[1018, 4896]	5558	[870, 2216]
1260	[2144, 2145]	2693	[3914, 666]	4126	[1362, 3715]	5559	[37, 204]
1261	[2146, 2147]	2694	[3915, 2209]	4127	[92, 2987]	5560	[4225, 637]
1262	[172, 2148]	2695	[1888, 793]	4128	[4897, 4898]	5561	[1683, 693]
1263	[2149, 708]	2696	[1640, 2458]	4129	[4899, 3043]	5562	[5663, 4140]
1264	[718, 2150]	2697	[874, 766]	4130	[4900, 2575]	5563	[2305, 2337]
1265	[2151, 2071]	2698	[3916, 3766]	4131	[4901, 2516]	5564	[2341, 1707]
1266	[2152, 1991]	2699	[1986, 2090]	4132	[4902, 4903]	5565	[5664, 1876]
1267	[2153, 2154]	2700	[570, 2200]	4133	[4904, 4905]	5566	[1844, 4172]
1268	[2155, 2156]	2701	[3917, 3918]	4134	[3053, 4906]	5567	[5665, 2114]
1269	[1744, 2157]	2702	[1814, 3825]	4135	[2546, 91]	5568	[5309, 537]
1270	[2158, 2159]	2703	[3919, 868]	4136	[2934, 4729]	5569	[5666, 2032]
1271	[774, 1903]	2704	[3920, 3921]	4137	[4907, 4908]	5570	[4080, 1773]
1272	[2160, 1929]	2705	[3922, 3923]	4138	[968, 1528]	5571	[4400, 1942]
1273	[2161, 516]	2706	[1890, 629]	4139	[4909, 4910]	5572	[5667, 2220]
1274	[2162, 557]	2707	[3769, 2153]	4140	[4911, 4497]	5573	[1863, 2444]
1275	[2163, 1677]	2708	[3924, 3925]	4141	[3155, 3305]	5574	[5668, 1716]
1276	[582, 2164]	2709	[809, 898]	4142	[4912, 972]	5575	[208, 1841]
1277	[2165, 737]	2710	[3926, 3768]	4143	[4913, 2559]	5576	[4096, 3769]
1278	[2166, 1860]	2711	[1976, 814]	4144	[4910, 4914]	5577	[5669, 1982]
1279	[2104, 2167]	2712	[128, 3927]	4145	[4915, 4916]	5578	[5670, 247]
1280	[1822, 1627]	2713	[3928, 3794]	4146	[4917, 437]	5579	[185, 3820]
1281	[2168, 33]	2714	[3929, 1818]	4147	[4918, 2549]	5580	[2279, 3825]
1282	[2169, 870]	2715	[3811, 3930]	4148	[1492, 4919]	5581	[11, 816]
1283	[2170, 584]	2716	[836, 3931]	4149	[486, 4920]	5582	[3960, 3959]
1284	[2171, 888]	2717	[853, 2368]	4150	[4921, 2517]	5583	[2400, 44]
1285	[2172, 1956]	2718	[3932, 44]	4151	[2688, 1059]	5584	[5671, 608]
1286	[2173, 2174]	2719	[3766, 2353]	4152	[4922, 4923]	5585	[2461, 1798]

1287	[2175, 780]	2720	[3933, 2103]	4153	[4924, 4925]	5586	[5672, 2167]
1288	[2176, 1766]	2721	[3934, 231]	4154	[4926, 2924]	5587	[1668, 134]
1289	[1908, 570]	2722	[3935, 1718]	4155	[4927, 4928]	5588	[5415, 2460]
1290	[762, 2029]	2723	[2318, 1675]	4156	[4929, 1044]	5589	[4242, 881]
1291	[2177, 2178]	2724	[3936, 3937]	4157	[1349, 4892]	5590	[4407, 2043]
1292	[595, 2125]	2725	[3938, 3868]	4158	[4617, 4853]	5591	[5659, 1804]
1293	[2179, 31]	2726	[3939, 3835]	4159	[4522, 4930]	5592	[5673, 3862]
1294	[2180, 1741]	2727	[723, 2133]	4160	[4931, 2608]	5593	[5674, 2148]
1295	[2181, 505]	2728	[3940, 10]	4161	[4932, 1026]	5594	[2202, 2286]
1296	[1900, 2182]	2729	[624, 827]	4162	[4515, 4933]	5595	[5675, 846]
1297	[2183, 54]	2730	[2019, 3941]	4163	[2522, 1035]	5596	[2223, 564]
1298	[1824, 2184]	2731	[2178, 2249]	4164	[4934, 412]	5597	[5676, 2017]
1299	[2185, 2150]	2732	[3942, 605]	4165	[4935, 4936]	5598	[178, 186]
1300	[2186, 717]	2733	[793, 3943]	4166	[4937, 4938]	5599	[4310, 1733]
1301	[2187, 2188]	2734	[3944, 1983]	4167	[482, 4939]	5600	[5677, 1745]
1302	[2189, 1935]	2735	[2152, 133]	4168	[4940, 1593]	5601	[5678, 2053]
1303	[2190, 2008]	2736	[1745, 3945]	4169	[4941, 4942]	5602	[5679, 1818]
1304	[2191, 1906]	2737	[3946, 3947]	4170	[4943, 4944]	5603	[4483, 592]
1305	[151, 1822]	2738	[3948, 1910]	4171	[4945, 4946]	5604	[5680, 501]
1306	[2192, 2193]	2739	[3949, 548]	4172	[3751, 4871]	5605	[5681, 3802]
1307	[2194, 2195]	2740	[3950, 809]	4173	[1172, 3021]	5606	[225, 878]
1308	[2196, 646]	2741	[1779, 3951]	4174	[1610, 1443]	5607	[5682, 4011]
1309	[2008, 834]	2742	[819, 3952]	4175	[4947, 4948]	5608	[3958, 3825]
1310	[2197, 2198]	2743	[3953, 3954]	4176	[490, 1389]	5609	[5221, 180]
1311	[2199, 2200]	2744	[2447, 1705]	4177	[4949, 4950]	5610	[4127, 1651]
1312	[2201, 2138]	2745	[3955, 3956]	4178	[4951, 4952]	5611	[4337, 220]
1313	[1685, 2202]	2746	[3957, 2085]	4179	[4953, 3166]	5612	[4185, 1713]
1314	[2203, 2199]	2747	[3818, 2127]	4180	[3029, 2525]	5613	[5683, 1958]
1315	[2204, 552]	2748	[2192, 529]	4181	[393, 4954]	5614	[5684, 2080]
1316	[2205, 2206]	2749	[822, 685]	4182	[2887, 2597]	5615	[5685, 1871]
1317	[2207, 1]	2750	[2048, 684]	4183	[2964, 4650]	5616	[5686, 659]
1318	[2208, 2209]	2751	[2424, 3958]	4184	[4955, 4956]	5617	[4114, 3864]
1319	[2210, 506]	2752	[506, 2413]	4185	[4957, 4958]	5618	[741, 682]
1320	[2211, 2212]	2753	[1915, 1682]	4186	[2846, 1578]	5619	[4040, 2090]
1321	[2213, 2214]	2754	[682, 3959]	4187	[4959, 1199]	5620	[4369, 160]
1322	[2215, 2216]	2755	[3960, 753]	4188	[4960, 4961]	5621	[4463, 1742]
1323	[2217, 1933]	2756	[3961, 2361]	4189	[4962, 4963]	5622	[5313, 708]
1324	[2218, 2002]	2757	[3962, 751]	4190	[2572, 343]	5623	[5687, 173]
1325	[2219, 2220]	2758	[3963, 2416]	4191	[1573, 2558]	5624	[5688, 1941]
1326	[1918, 2164]	2759	[3842, 1705]	4192	[4964, 1549]	5625	[5689, 2366]
1327	[2221, 851]	2760	[494, 1959]	4193	[3608, 1162]	5626	[5690, 5691]
1328	[2222, 2223]	2761	[3964, 1872]	4194	[2814, 4965]	5627	[2978, 2929]
1329	[2224, 2225]	2762	[658, 544]	4195	[4966, 2674]	5628	[5134, 1281]
1330	[2226, 497]	2763	[164, 3965]	4196	[322, 4967]	5629	[5692, 1242]

1331	[2227, 1692]	2764	[1701, 1930]	4197	[4968, 4969]	5630	[5693, 4945]
1332	[1730, 51]	2765	[44, 239]	4198	[4970, 3466]	5631	[4505, 5694]
1333	[1652, 747]	2766	[1748, 686]	4199	[4971, 1325]	5632	[5695, 4530]
1334	[2228, 2229]	2767	[1749, 2030]	4200	[2593, 3082]	5633	[3744, 4583]
1335	[872, 2230]	2768	[3966, 3967]	4201	[4972, 4973]	5634	[4563, 2741]
1336	[2231, 2232]	2769	[3968, 1795]	4202	[4974, 4936]	5635	[4719, 436]
1337	[1714, 2233]	2770	[2292, 2207]	4203	[2751, 4975]	5636	[4623, 2986]
1338	[2234, 1999]	2771	[778, 1820]	4204	[4976, 1424]	5637	[5144, 3025]
1339	[2147, 2199]	2772	[3969, 136]	4205	[1198, 4977]	5638	[5696, 3462]
1340	[617, 1742]	2773	[517, 2381]	4206	[4978, 4979]	5639	[5697, 5698]
1341	[2235, 1677]	2774	[625, 828]	4207	[310, 3168]	5640	[3673, 73]
1342	[2236, 227]	2775	[3970, 3816]	4208	[4551, 3471]	5641	[3557, 469]
1343	[147, 1797]	2776	[3971, 554]	4209	[2980, 4974]	5642	[5699, 4848]
1344	[2237, 2238]	2777	[859, 2167]	4210	[4980, 4981]	5643	[4731, 330]
1345	[2095, 1713]	2778	[3972, 523]	4211	[4982, 3261]	5644	[2578, 4797]
1346	[1767, 873]	2779	[3973, 3974]	4212	[4983, 3589]	5645	[4950, 5700]
1347	[1627, 2239]	2780	[2079, 2302]	4213	[972, 4984]	5646	[5000, 1545]
1348	[2240, 2229]	2781	[1808, 3975]	4214	[4985, 4823]	5647	[2836, 356]
1349	[607, 2241]	2782	[3976, 657]	4215	[4986, 4987]	5648	[3661, 392]
1350	[1790, 2242]	2783	[3977, 774]	4216	[3246, 1530]	5649	[2574, 2611]
1351	[2095, 1837]	2784	[3978, 146]	4217	[4914, 4988]	5650	[2936, 1577]
1352	[2243, 594]	2785	[2232, 220]	4218	[318, 1131]	5651	[2582, 3589]
1353	[2244, 208]	2786	[3979, 1850]	4219	[3426, 4989]	5652	[5701, 3445]
1354	[2245, 153]	2787	[563, 2422]	4220	[4990, 4612]	5653	[4850, 2751]
1355	[2246, 2247]	2788	[3973, 704]	4221	[4991, 2857]	5654	[4896, 2932]
1356	[2248, 758]	2789	[3980, 870]	4222	[4992, 4613]	5655	[5702, 3454]
1357	[2249, 1800]	2790	[3981, 3982]	4223	[4993, 2701]	5656	[3410, 4734]
1358	[2250, 2025]	2791	[3983, 2121]	4224	[4994, 3657]	5657	[2882, 5057]
1359	[2251, 608]	2792	[3984, 3985]	4225	[4995, 2931]	5658	[5703, 4570]
1360	[1795, 2252]	2793	[831, 677]	4226	[4996, 4997]	5659	[3551, 5045]
1361	[2253, 574]	2794	[653, 226]	4227	[3377, 4998]	5660	[5704, 2708]
1362	[2088, 1800]	2795	[2059, 3870]	4228	[272, 4691]	5661	[3261, 5164]
1363	[615, 2254]	2796	[3986, 679]	4229	[4999, 5000]	5662	[5705, 1064]
1364	[1976, 1730]	2797	[2213, 3840]	4230	[3015, 5001]	5663	[2555, 983]
1365	[2255, 556]	2798	[608, 2134]	4231	[5002, 4851]	5664	[1614, 1204]
1366	[1656, 1872]	2799	[2034, 2284]	4232	[2862, 3351]	5665	[3169, 1178]
1367	[858, 2104]	2800	[1879, 9]	4233	[5003, 4617]	5666	[5706, 4532]
1368	[2256, 1822]	2801	[3987, 889]	4234	[3430, 3702]	5667	[5707, 106]
1369	[245, 503]	2802	[3988, 783]	4235	[5004, 2844]	5668	[1088, 360]
1370	[1640, 1631]	2803	[3989, 2357]	4236	[5005, 4566]	5669	[907, 5026]
1371	[2257, 2013]	2804	[3990, 1696]	4237	[5006, 4957]	5670	[5708, 3281]
1372	[2258, 1851]	2805	[3991, 2028]	4238	[5007, 2696]	5671	[2988, 3401]
1373	[2259, 2022]	2806	[689, 1663]	4239	[3634, 5008]	5672	[3481, 5709]
1374	[2260, 2261]	2807	[673, 2040]	4240	[360, 2806]	5673	[5710, 5711]

1375	[2262, 2263]	2808	[3992, 3801]	4241	[5009, 4804]	5674	[5712, 4687]
1376	[583, 2264]	2809	[2356, 2043]	4242	[2635, 3476]	5675	[5713, 4515]
1377	[2265, 204]	2810	[794, 3993]	4243	[3391, 5010]	5676	[5714, 4605]
1378	[2266, 2267]	2811	[3994, 3925]	4244	[5011, 2522]	5677	[1070, 4903]
1379	[2268, 794]	2812	[3995, 3996]	4245	[5012, 4904]	5678	[5715, 3085]
1380	[1698, 804]	2813	[3771, 1988]	4246	[3074, 4640]	5679	[5023, 1477]
1381	[2269, 2270]	2814	[1801, 2330]	4247	[4903, 2768]	5680	[5716, 3623]
1382	[2271, 2085]	2815	[3997, 529]	4248	[5013, 317]	5681	[5717, 3636]
1383	[2272, 872]	2816	[31, 2029]	4249	[5014, 5015]	5682	[5718, 3634]
1384	[2273, 1818]	2817	[3998, 3999]	4250	[4625, 5016]	5683	[5719, 4508]
1385	[2274, 2275]	2818	[4000, 4001]	4251	[2733, 1174]	5684	[5720, 3693]
1386	[2276, 2277]	2819	[726, 811]	4252	[5017, 5018]	5685	[5498, 4765]
1387	[2278, 1888]	2820	[3787, 4002]	4253	[5019, 1318]	5686	[2830, 5036]
1388	[2279, 2280]	2821	[869, 2215]	4254	[5020, 5021]	5687	[3695, 345]
1389	[2281, 2282]	2822	[3917, 2220]	4255	[5022, 4809]	5688	[5721, 3434]
1390	[2283, 2284]	2823	[4003, 783]	4256	[3132, 364]	5689	[5722, 86]
1391	[1947, 207]	2824	[4004, 704]	4257	[2712, 4777]	5690	[5723, 2381]
1392	[249, 2285]	2825	[2488, 4005]	4258	[3568, 3667]	5691	[2315, 629]
1393	[2286, 548]	2826	[4006, 1728]	4259	[1294, 474]	5692	[2334, 1775]
1394	[2287, 2241]	2827	[4007, 3930]	4260	[1380, 5023]	5693	[5724, 518]
1395	[2288, 2289]	2828	[3809, 622]	4261	[5024, 965]	5694	[4213, 2225]
1396	[2290, 2164]	2829	[4008, 2039]	4262	[4750, 1190]	5695	[1729, 814]
1397	[2291, 2202]	2830	[2099, 641]	4263	[2702, 5025]	5696	[5413, 4132]
1398	[603, 2154]	2831	[194, 2446]	4264	[3470, 3708]	5697	[5725, 4192]
1399	[2292, 2293]	2832	[617, 2059]	4265	[1194, 1170]	5698	[2495, 2317]
1400	[49, 2294]	2833	[1807, 4009]	4266	[2942, 4847]	5699	[5726, 1954]
1401	[2295, 598]	2834	[4010, 4011]	4267	[2891, 1605]	5700	[1817, 2335]
1402	[2296, 1901]	2835	[4012, 781]	4268	[5026, 2663]	5701	[707, 520]
1403	[2297, 645]	2836	[1964, 1703]	4269	[5027, 5028]	5702	[4238, 645]
1404	[128, 2298]	2837	[4013, 4014]	4270	[5029, 4653]	5703	[636, 746]
1405	[620, 716]	2838	[1720, 575]	4271	[2695, 5030]	5704	[4143, 857]
1406	[2299, 1712]	2839	[4015, 4016]	4272	[5031, 3144]	5705	[2093, 1927]
1407	[880, 1972]	2840	[4017, 893]	4273	[1168, 5032]	5706	[4068, 243]
1408	[1696, 2051]	2841	[1969, 1999]	4274	[72, 5033]	5707	[5388, 3888]
1409	[2300, 1750]	2842	[4018, 733]	4275	[5034, 4600]	5708	[1774, 2335]
1410	[2301, 2302]	2843	[3977, 579]	4276	[5035, 5036]	5709	[4042, 1775]
1411	[2303, 2298]	2844	[2024, 4019]	4277	[5037, 5038]	5710	[5727, 2091]
1412	[2304, 2305]	2845	[9, 227]	4278	[1417, 3580]	5711	[1840, 209]
1413	[2306, 662]	2846	[895, 813]	4279	[5039, 5040]	5712	[5728, 2047]
1414	[2307, 2178]	2847	[60, 4020]	4280	[5041, 3557]	5713	[3887, 592]
1415	[2308, 2309]	2848	[4021, 836]	4281	[5042, 940]	5714	[5287, 1781]
1416	[2310, 818]	2849	[888, 1652]	4282	[4819, 30]	5715	[1973, 1651]
1417	[2311, 582]	2850	[4022, 4023]	4283	[5043, 986]	5716	[4147, 1707]
1418	[2312, 2190]	2851	[4024, 652]	4284	[5044, 3453]	5717	[4255, 2437]

1419	[654, 2313]	2852	[2076, 4025]	4285	[5045, 2788]	5718	[1706, 2342]
1420	[2314, 2315]	2853	[4026, 865]	4286	[5046, 6]	5719	[4431, 1684]
1421	[1838, 2316]	2854	[4027, 3965]	4287	[4948, 4577]	5720	[4131, 1885]
1422	[1844, 2317]	2855	[4028, 1930]	4288	[5047, 3363]	5721	[806, 3835]
1423	[2318, 790]	2856	[4029, 4030]	4289	[5048, 5049]	5722	[5373, 1733]
1424	[1911, 641]	2857	[33, 4031]	4290	[1428, 5050]	5723	[3345, 3426]
1425	[1688, 2104]	2858	[4032, 2143]	4291	[3618, 445]	5724	[944, 2893]
1426	[2319, 2320]	2859	[2189, 4033]	4292	[4973, 5051]	5725	[4536, 3049]
1427	[2321, 1885]	2860	[713, 2084]	4293	[4642, 1404]	5726	[4806, 2805]
1428	[150, 1834]	2861	[4034, 1937]	4294	[3401, 4761]	5727	[3539, 440]
1429	[2322, 2323]	2862	[4035, 237]	4295	[5052, 1597]	5728	[3609, 2809]
1430	[2324, 1850]	2863	[4036, 2195]	4296	[5053, 458]		
1431	[2325, 623]	2864	[824, 2061]	4297	[5054, 3536]		
1432	[2326, 1928]	2865	[4037, 4038]	4298	[5055, 5056]		

Output function $n \mapsto \tau(n)$:

n	$\tau(n)$	n	$\tau(n)$	n	$\tau(n)$	n	$\tau(n)$	n	$\tau(n)$	n	$\tau(n)$
0	0	955	1	1910	1	2865	1	3820	0	4775	1
1	0	956	0	1911	0	2866	0	3821	1	4776	1
2	0	957	0	1912	1	2867	1	3822	1	4777	0
3	0	958	1	1913	0	2868	0	3823	1	4778	1
4	0	959	0	1914	0	2869	1	3824	1	4779	0
5	0	960	0	1915	1	2870	0	3825	1	4780	1
6	0	961	0	1916	0	2871	0	3826	0	4781	1
7	0	962	1	1917	1	2872	1	3827	0	4782	0
8	1	963	1	1918	1	2873	1	3828	0	4783	0
9	0	964	0	1919	0	2874	1	3829	0	4784	0
10	0	965	1	1920	0	2875	0	3830	1	4785	0
11	0	966	0	1921	0	2876	1	3831	1	4786	1
12	1	967	1	1922	1	2877	0	3832	1	4787	1
13	0	968	0	1923	1	2878	1	3833	1	4788	0
14	0	969	1	1924	1	2879	0	3834	0	4789	0
15	0	970	0	1925	1	2880	0	3835	1	4790	1
16	0	971	0	1926	1	2881	1	3836	0	4791	0
17	1	972	0	1927	0	2882	1	3837	1	4792	1
18	1	973	1	1928	0	2883	1	3838	0	4793	1
19	0	974	1	1929	1	2884	0	3839	1	4794	1
20	0	975	1	1930	0	2885	0	3840	0	4795	1
21	0	976	1	1931	1	2886	0	3841	0	4796	1
22	0	977	0	1932	0	2887	1	3842	1	4797	1
23	0	978	0	1933	1	2888	0	3843	0	4798	1
24	1	979	0	1934	1	2889	1	3844	0	4799	1
25	1	980	1	1935	0	2890	1	3845	1	4800	0
26	1	981	0	1936	1	2891	0	3846	1	4801	0

27	0	982	1	1937	0	2892	1	3847	1	4802	0
28	1	983	1	1938	1	2893	1	3848	0	4803	0
29	0	984	0	1939	0	2894	1	3849	0	4804	1
30	1	985	0	1940	1	2895	1	3850	1	4805	1
31	0	986	0	1941	0	2896	1	3851	1	4806	1
32	1	987	1	1942	0	2897	1	3852	1	4807	0
33	0	988	0	1943	1	2898	0	3853	0	4808	1
34	0	989	1	1944	0	2899	0	3854	0	4809	0
35	1	990	1	1945	0	2900	1	3855	1	4810	1
36	0	991	1	1946	0	2901	1	3856	0	4811	0
37	1	992	1	1947	0	2902	1	3857	0	4812	0
38	1	993	1	1948	1	2903	0	3858	1	4813	0
39	0	994	0	1949	0	2904	1	3859	0	4814	1
40	0	995	1	1950	1	2905	0	3860	1	4815	0
41	0	996	1	1951	0	2906	0	3861	0	4816	0
42	0	997	0	1952	1	2907	0	3862	1	4817	1
43	0	998	1	1953	0	2908	0	3863	1	4818	1
44	0	999	1	1954	0	2909	1	3864	1	4819	0
45	0	1000	0	1955	1	2910	0	3865	1	4820	1
46	0	1001	0	1956	1	2911	0	3866	1	4821	0
47	0	1002	0	1957	1	2912	1	3867	1	4822	1
48	0	1003	1	1958	0	2913	0	3868	0	4823	1
49	1	1004	1	1959	0	2914	1	3869	1	4824	1
50	1	1005	1	1960	1	2915	0	3870	1	4825	1
51	1	1006	1	1961	0	2916	0	3871	0	4826	1
52	0	1007	1	1962	1	2917	0	3872	0	4827	0
53	1	1008	0	1963	0	2918	1	3873	0	4828	1
54	1	1009	0	1964	0	2919	0	3874	1	4829	0
55	0	1010	1	1965	0	2920	1	3875	0	4830	0
56	0	1011	1	1966	0	2921	0	3876	1	4831	1
57	1	1012	0	1967	0	2922	0	3877	1	4832	0
58	1	1013	1	1968	0	2923	0	3878	0	4833	0
59	0	1014	1	1969	1	2924	0	3879	0	4834	0
60	1	1015	0	1970	0	2925	0	3880	0	4835	1
61	1	1016	0	1971	0	2926	1	3881	1	4836	1
62	1	1017	0	1972	0	2927	0	3882	0	4837	0
63	0	1018	1	1973	0	2928	0	3883	0	4838	0
64	1	1019	0	1974	0	2929	0	3884	0	4839	0
65	1	1020	0	1975	0	2930	1	3885	1	4840	1
66	1	1021	0	1976	0	2931	0	3886	1	4841	0
67	0	1022	0	1977	1	2932	1	3887	1	4842	1
68	1	1023	0	1978	0	2933	1	3888	0	4843	0
69	0	1024	0	1979	1	2934	1	3889	0	4844	0
70	1	1025	1	1980	1	2935	1	3890	1	4845	1

71	1	1026	1	1981	0	2936	1	3891	0	4846	0
72	1	1027	0	1982	0	2937	1	3892	0	4847	1
73	0	1028	1	1983	0	2938	0	3893	1	4848	1
74	0	1029	0	1984	0	2939	0	3894	0	4849	1
75	1	1030	1	1985	0	2940	0	3895	0	4850	0
76	0	1031	1	1986	0	2941	1	3896	0	4851	0
77	1	1032	0	1987	0	2942	0	3897	0	4852	0
78	0	1033	1	1988	1	2943	1	3898	0	4853	0
79	0	1034	0	1989	1	2944	0	3899	1	4854	1
80	0	1035	1	1990	0	2945	0	3900	0	4855	1
81	0	1036	0	1991	0	2946	0	3901	1	4856	0
82	0	1037	0	1992	1	2947	1	3902	1	4857	0
83	0	1038	1	1993	1	2948	1	3903	1	4858	0
84	0	1039	1	1994	0	2949	0	3904	0	4859	0
85	0	1040	0	1995	1	2950	0	3905	1	4860	1
86	0	1041	1	1996	0	2951	1	3906	0	4861	1
87	0	1042	1	1997	0	2952	1	3907	0	4862	1
88	0	1043	1	1998	0	2953	1	3908	1	4863	0
89	0	1044	0	1999	1	2954	0	3909	0	4864	0
90	0	1045	1	2000	1	2955	0	3910	0	4865	1
91	0	1046	0	2001	0	2956	0	3911	1	4866	1
92	0	1047	1	2002	1	2957	1	3912	0	4867	1
93	0	1048	1	2003	0	2958	0	3913	1	4868	1
94	0	1049	0	2004	0	2959	0	3914	0	4869	0
95	0	1050	0	2005	0	2960	0	3915	1	4870	1
96	0	1051	1	2006	0	2961	1	3916	0	4871	1
97	0	1052	0	2007	0	2962	0	3917	0	4872	1
98	0	1053	1	2008	1	2963	1	3918	0	4873	0
99	1	1054	1	2009	1	2964	0	3919	1	4874	1
100	1	1055	0	2010	0	2965	1	3920	1	4875	1
101	1	1056	0	2011	1	2966	1	3921	0	4876	0
102	0	1057	1	2012	1	2967	1	3922	1	4877	1
103	1	1058	1	2013	1	2968	1	3923	1	4878	1
104	0	1059	0	2014	0	2969	1	3924	0	4879	0
105	0	1060	0	2015	1	2970	1	3925	0	4880	0
106	0	1061	0	2016	1	2971	1	3926	0	4881	1
107	1	1062	0	2017	1	2972	0	3927	0	4882	0
108	1	1063	1	2018	1	2973	1	3928	0	4883	1
109	1	1064	1	2019	1	2974	0	3929	1	4884	1
110	1	1065	0	2020	0	2975	1	3930	1	4885	0
111	0	1066	1	2021	0	2976	0	3931	0	4886	0
112	0	1067	0	2022	0	2977	1	3932	1	4887	1
113	0	1068	0	2023	0	2978	0	3933	1	4888	1
114	1	1069	1	2024	1	2979	1	3934	1	4889	1

115	1	1070	1	2025	0	2980	0	3935	1	4890	0
116	0	1071	0	2026	0	2981	0	3936	0	4891	1
117	1	1072	0	2027	0	2982	1	3937	1	4892	1
118	1	1073	1	2028	1	2983	0	3938	0	4893	0
119	0	1074	0	2029	0	2984	0	3939	1	4894	0
120	1	1075	1	2030	0	2985	1	3940	0	4895	1
121	1	1076	1	2031	1	2986	1	3941	1	4896	1
122	0	1077	0	2032	0	2987	1	3942	0	4897	1
123	1	1078	1	2033	1	2988	0	3943	0	4898	1
124	1	1079	0	2034	0	2989	1	3944	1	4899	1
125	1	1080	1	2035	0	2990	0	3945	0	4900	1
126	1	1081	1	2036	1	2991	1	3946	0	4901	0
127	0	1082	1	2037	1	2992	0	3947	0	4902	1
128	1	1083	1	2038	0	2993	0	3948	1	4903	0
129	1	1084	1	2039	1	2994	0	3949	1	4904	1
130	1	1085	0	2040	0	2995	1	3950	1	4905	1
131	1	1086	1	2041	0	2996	1	3951	0	4906	1
132	0	1087	1	2042	0	2997	0	3952	0	4907	0
133	1	1088	0	2043	1	2998	0	3953	0	4908	1
134	0	1089	0	2044	1	2999	0	3954	1	4909	0
135	0	1090	0	2045	1	3000	1	3955	0	4910	0
136	1	1091	1	2046	1	3001	0	3956	1	4911	0
137	1	1092	1	2047	1	3002	1	3957	1	4912	0
138	0	1093	0	2048	0	3003	1	3958	0	4913	1
139	0	1094	0	2049	0	3004	1	3959	1	4914	0
140	1	1095	1	2050	0	3005	1	3960	0	4915	1
141	1	1096	1	2051	1	3006	0	3961	1	4916	0
142	1	1097	1	2052	1	3007	1	3962	1	4917	0
143	1	1098	0	2053	1	3008	1	3963	0	4918	0
144	0	1099	0	2054	0	3009	1	3964	1	4919	1
145	1	1100	1	2055	1	3010	0	3965	0	4920	1
146	0	1101	1	2056	0	3011	1	3966	1	4921	0
147	0	1102	1	2057	1	3012	1	3967	1	4922	0
148	1	1103	1	2058	1	3013	0	3968	1	4923	0
149	0	1104	1	2059	1	3014	1	3969	1	4924	0
150	0	1105	1	2060	1	3015	1	3970	0	4925	1
151	1	1106	1	2061	1	3016	1	3971	1	4926	0
152	0	1107	0	2062	1	3017	0	3972	1	4927	0
153	0	1108	1	2063	1	3018	0	3973	0	4928	1
154	0	1109	1	2064	1	3019	0	3974	1	4929	0
155	1	1110	0	2065	0	3020	0	3975	0	4930	1
156	1	1111	1	2066	0	3021	0	3976	1	4931	0
157	0	1112	0	2067	1	3022	0	3977	0	4932	0
158	1	1113	0	2068	0	3023	0	3978	0	4933	0

159	0	1114	1	2069	0	3024	1	3979	1	4934	0
160	1	1115	0	2070	0	3025	1	3980	1	4935	1
161	0	1116	0	2071	1	3026	0	3981	0	4936	1
162	1	1117	0	2072	0	3027	0	3982	1	4937	1
163	0	1118	1	2073	0	3028	1	3983	0	4938	0
164	0	1119	1	2074	1	3029	0	3984	0	4939	0
165	0	1120	1	2075	0	3030	1	3985	0	4940	0
166	0	1121	0	2076	1	3031	1	3986	1	4941	1
167	0	1122	0	2077	1	3032	0	3987	1	4942	0
168	1	1123	1	2078	1	3033	0	3988	0	4943	0
169	0	1124	0	2079	0	3034	1	3989	0	4944	1
170	1	1125	0	2080	0	3035	1	3990	1	4945	0
171	0	1126	0	2081	0	3036	0	3991	0	4946	0
172	0	1127	0	2082	0	3037	1	3992	1	4947	1
173	0	1128	0	2083	1	3038	0	3993	1	4948	1
174	0	1129	0	2084	1	3039	1	3994	1	4949	1
175	0	1130	0	2085	1	3040	0	3995	1	4950	1
176	1	1131	0	2086	1	3041	0	3996	1	4951	1
177	0	1132	1	2087	0	3042	1	3997	0	4952	1
178	1	1133	1	2088	0	3043	1	3998	1	4953	0
179	0	1134	0	2089	1	3044	0	3999	0	4954	0
180	0	1135	1	2090	1	3045	1	4000	1	4955	1
181	0	1136	1	2091	1	3046	1	4001	1	4956	0
182	0	1137	0	2092	0	3047	0	4002	0	4957	1
183	0	1138	0	2093	1	3048	0	4003	1	4958	1
184	0	1139	0	2094	1	3049	1	4004	1	4959	0
185	0	1140	1	2095	0	3050	0	4005	0	4960	0
186	1	1141	1	2096	0	3051	1	4006	0	4961	1
187	0	1142	0	2097	0	3052	0	4007	1	4962	1
188	1	1143	1	2098	1	3053	1	4008	1	4963	0
189	0	1144	0	2099	1	3054	0	4009	0	4964	0
190	0	1145	1	2100	0	3055	0	4010	0	4965	0
191	0	1146	0	2101	0	3056	1	4011	1	4966	0
192	0	1147	1	2102	0	3057	1	4012	1	4967	0
193	0	1148	0	2103	1	3058	0	4013	0	4968	1
194	0	1149	1	2104	0	3059	0	4014	0	4969	1
195	0	1150	0	2105	1	3060	0	4015	1	4970	1
196	1	1151	0	2106	0	3061	0	4016	1	4971	0
197	0	1152	0	2107	0	3062	0	4017	0	4972	1
198	1	1153	0	2108	0	3063	0	4018	0	4973	1
199	1	1154	1	2109	0	3064	0	4019	1	4974	1
200	0	1155	1	2110	0	3065	0	4020	0	4975	1
201	1	1156	1	2111	0	3066	1	4021	0	4976	0
202	1	1157	1	2112	1	3067	0	4022	0	4977	1

203	1	1158	0	2113	1	3068	0	4023	1	4978	0
204	0	1159	1	2114	0	3069	1	4024	1	4979	1
205	0	1160	1	2115	1	3070	1	4025	0	4980	1
206	1	1161	1	2116	0	3071	1	4026	0	4981	0
207	0	1162	0	2117	0	3072	0	4027	1	4982	1
208	0	1163	0	2118	1	3073	0	4028	0	4983	0
209	0	1164	1	2119	1	3074	1	4029	1	4984	1
210	0	1165	0	2120	0	3075	0	4030	1	4985	1
211	1	1166	0	2121	1	3076	0	4031	1	4986	1
212	0	1167	0	2122	0	3077	0	4032	0	4987	0
213	0	1168	0	2123	1	3078	0	4033	1	4988	1
214	1	1169	1	2124	1	3079	0	4034	0	4989	0
215	1	1170	0	2125	1	3080	0	4035	1	4990	0
216	1	1171	1	2126	1	3081	0	4036	1	4991	1
217	0	1172	0	2127	0	3082	1	4037	1	4992	1
218	1	1173	1	2128	0	3083	0	4038	0	4993	0
219	0	1174	1	2129	0	3084	0	4039	1	4994	1
220	1	1175	0	2130	0	3085	1	4040	1	4995	1
221	1	1176	0	2131	0	3086	1	4041	0	4996	0
222	0	1177	0	2132	0	3087	1	4042	0	4997	0
223	0	1178	1	2133	1	3088	0	4043	1	4998	0
224	0	1179	1	2134	0	3089	1	4044	1	4999	1
225	1	1180	0	2135	1	3090	1	4045	0	5000	0
226	1	1181	1	2136	1	3091	1	4046	1	5001	0
227	1	1182	1	2137	0	3092	1	4047	1	5002	0
228	1	1183	0	2138	0	3093	0	4048	0	5003	1
229	0	1184	0	2139	1	3094	1	4049	0	5004	1
230	0	1185	0	2140	0	3095	1	4050	1	5005	1
231	0	1186	1	2141	0	3096	0	4051	0	5006	1
232	1	1187	0	2142	0	3097	0	4052	0	5007	0
233	0	1188	1	2143	1	3098	1	4053	1	5008	1
234	1	1189	1	2144	0	3099	1	4054	1	5009	1
235	1	1190	0	2145	1	3100	1	4055	1	5010	1
236	0	1191	1	2146	0	3101	0	4056	1	5011	1
237	1	1192	1	2147	0	3102	1	4057	1	5012	1
238	1	1193	1	2148	1	3103	1	4058	1	5013	0
239	1	1194	1	2149	1	3104	0	4059	0	5014	1
240	1	1195	1	2150	1	3105	0	4060	1	5015	1
241	0	1196	1	2151	1	3106	0	4061	0	5016	0
242	0	1197	0	2152	1	3107	0	4062	1	5017	1
243	1	1198	1	2153	1	3108	0	4063	1	5018	0
244	1	1199	0	2154	0	3109	0	4064	0	5019	0
245	1	1200	0	2155	0	3110	0	4065	0	5020	0
246	1	1201	0	2156	0	3111	1	4066	1	5021	1

247	1	1202	0	2157	1	3112	0	4067	0	5022	1
248	1	1203	1	2158	0	3113	0	4068	0	5023	0
249	1	1204	1	2159	1	3114	1	4069	1	5024	0
250	0	1205	1	2160	0	3115	1	4070	0	5025	1
251	0	1206	1	2161	1	3116	1	4071	0	5026	0
252	0	1207	0	2162	1	3117	0	4072	0	5027	1
253	1	1208	0	2163	1	3118	1	4073	1	5028	0
254	0	1209	0	2164	1	3119	1	4074	0	5029	1
255	1	1210	1	2165	1	3120	1	4075	1	5030	1
256	0	1211	1	2166	1	3121	1	4076	1	5031	0
257	1	1212	0	2167	0	3122	1	4077	0	5032	0
258	0	1213	1	2168	0	3123	0	4078	0	5033	1
259	1	1214	1	2169	0	3124	0	4079	0	5034	0
260	1	1215	1	2170	0	3125	1	4080	0	5035	1
261	0	1216	0	2171	0	3126	1	4081	1	5036	0
262	1	1217	1	2172	0	3127	1	4082	0	5037	1
263	1	1218	1	2173	1	3128	1	4083	1	5038	1
264	1	1219	0	2174	1	3129	1	4084	1	5039	1
265	0	1220	0	2175	1	3130	0	4085	1	5040	0
266	1	1221	0	2176	0	3131	1	4086	0	5041	1
267	0	1222	1	2177	1	3132	0	4087	0	5042	0
268	0	1223	0	2178	1	3133	1	4088	1	5043	0
269	1	1224	0	2179	1	3134	0	4089	1	5044	0
270	1	1225	1	2180	0	3135	1	4090	1	5045	0
271	1	1226	0	2181	0	3136	0	4091	0	5046	0
272	1	1227	1	2182	1	3137	0	4092	0	5047	0
273	0	1228	0	2183	0	3138	1	4093	0	5048	0
274	1	1229	0	2184	0	3139	0	4094	1	5049	1
275	0	1230	0	2185	0	3140	0	4095	0	5050	1
276	0	1231	0	2186	0	3141	1	4096	0	5051	0
277	1	1232	1	2187	1	3142	0	4097	1	5052	1
278	0	1233	1	2188	1	3143	0	4098	0	5053	0
279	1	1234	0	2189	0	3144	0	4099	1	5054	0
280	0	1235	1	2190	0	3145	0	4100	0	5055	0
281	1	1236	0	2191	1	3146	1	4101	1	5056	0
282	0	1237	0	2192	1	3147	1	4102	0	5057	1
283	1	1238	1	2193	1	3148	0	4103	1	5058	1
284	0	1239	1	2194	0	3149	1	4104	1	5059	1
285	0	1240	0	2195	0	3150	0	4105	0	5060	0
286	0	1241	0	2196	0	3151	0	4106	1	5061	1
287	1	1242	1	2197	1	3152	1	4107	1	5062	1
288	1	1243	1	2198	1	3153	0	4108	0	5063	0
289	0	1244	1	2199	1	3154	0	4109	1	5064	1
290	0	1245	1	2200	1	3155	1	4110	0	5065	0

291	0	1246	0	2201	0	3156	0	4111	1	5066	0
292	0	1247	0	2202	1	3157	1	4112	0	5067	1
293	1	1248	0	2203	0	3158	1	4113	0	5068	0
294	1	1249	0	2204	0	3159	0	4114	0	5069	0
295	0	1250	1	2205	0	3160	0	4115	1	5070	0
296	0	1251	1	2206	0	3161	1	4116	1	5071	1
297	0	1252	1	2207	0	3162	1	4117	1	5072	1
298	0	1253	1	2208	0	3163	0	4118	1	5073	1
299	1	1254	0	2209	0	3164	0	4119	0	5074	0
300	1	1255	0	2210	1	3165	0	4120	1	5075	0
301	0	1256	0	2211	1	3166	0	4121	0	5076	0
302	1	1257	0	2212	1	3167	1	4122	0	5077	0
303	0	1258	0	2213	0	3168	0	4123	0	5078	0
304	0	1259	0	2214	1	3169	0	4124	1	5079	1
305	0	1260	0	2215	0	3170	1	4125	1	5080	1
306	1	1261	0	2216	1	3171	1	4126	0	5081	1
307	1	1262	0	2217	0	3172	0	4127	0	5082	1
308	1	1263	1	2218	1	3173	1	4128	1	5083	0
309	1	1264	0	2219	1	3174	1	4129	1	5084	1
310	1	1265	1	2220	1	3175	0	4130	1	5085	0
311	0	1266	1	2221	0	3176	0	4131	0	5086	1
312	1	1267	1	2222	1	3177	0	4132	1	5087	0
313	1	1268	0	2223	1	3178	0	4133	1	5088	1
314	0	1269	0	2224	0	3179	1	4134	1	5089	0
315	0	1270	0	2225	0	3180	0	4135	0	5090	1
316	0	1271	1	2226	1	3181	1	4136	1	5091	1
317	1	1272	0	2227	0	3182	0	4137	0	5092	1
318	0	1273	1	2228	0	3183	1	4138	0	5093	0
319	0	1274	1	2229	1	3184	1	4139	0	5094	0
320	1	1275	1	2230	1	3185	1	4140	0	5095	0
321	1	1276	0	2231	0	3186	1	4141	1	5096	1
322	1	1277	1	2232	0	3187	1	4142	0	5097	1
323	0	1278	1	2233	0	3188	0	4143	1	5098	0
324	1	1279	0	2234	0	3189	1	4144	0	5099	0
325	0	1280	1	2235	0	3190	1	4145	1	5100	0
326	0	1281	0	2236	1	3191	1	4146	0	5101	0
327	0	1282	0	2237	0	3192	1	4147	0	5102	1
328	1	1283	0	2238	0	3193	0	4148	1	5103	0
329	0	1284	0	2239	1	3194	1	4149	1	5104	0
330	1	1285	0	2240	1	3195	0	4150	0	5105	0
331	0	1286	1	2241	1	3196	1	4151	0	5106	0
332	0	1287	1	2242	1	3197	1	4152	0	5107	0
333	1	1288	0	2243	0	3198	1	4153	0	5108	1
334	0	1289	1	2244	0	3199	1	4154	0	5109	0

335	0	1290	1	2245	0	3200	1	4155	0	5110	0
336	1	1291	1	2246	0	3201	1	4156	0	5111	1
337	1	1292	1	2247	0	3202	1	4157	1	5112	0
338	0	1293	1	2248	1	3203	0	4158	0	5113	1
339	0	1294	0	2249	1	3204	0	4159	0	5114	0
340	1	1295	0	2250	0	3205	0	4160	0	5115	1
341	0	1296	1	2251	1	3206	1	4161	0	5116	1
342	0	1297	0	2252	0	3207	0	4162	0	5117	0
343	0	1298	1	2253	1	3208	0	4163	0	5118	0
344	1	1299	0	2254	1	3209	0	4164	0	5119	1
345	0	1300	0	2255	0	3210	1	4165	1	5120	0
346	1	1301	1	2256	0	3211	1	4166	1	5121	1
347	0	1302	0	2257	1	3212	0	4167	1	5122	1
348	1	1303	0	2258	1	3213	0	4168	0	5123	0
349	0	1304	1	2259	1	3214	0	4169	1	5124	1
350	1	1305	1	2260	1	3215	1	4170	0	5125	0
351	1	1306	1	2261	0	3216	0	4171	0	5126	0
352	1	1307	0	2262	0	3217	1	4172	1	5127	1
353	0	1308	0	2263	1	3218	0	4173	0	5128	1
354	1	1309	1	2264	0	3219	1	4174	0	5129	0
355	0	1310	1	2265	1	3220	1	4175	1	5130	1
356	0	1311	1	2266	1	3221	0	4176	0	5131	0
357	0	1312	0	2267	1	3222	1	4177	1	5132	1
358	1	1313	1	2268	0	3223	0	4178	1	5133	0
359	0	1314	0	2269	0	3224	1	4179	0	5134	0
360	0	1315	0	2270	0	3225	0	4180	0	5135	0
361	0	1316	0	2271	1	3226	0	4181	0	5136	0
362	0	1317	0	2272	1	3227	1	4182	1	5137	1
363	0	1318	0	2273	0	3228	1	4183	0	5138	1
364	1	1319	1	2274	1	3229	1	4184	1	5139	0
365	0	1320	1	2275	1	3230	1	4185	1	5140	1
366	1	1321	0	2276	1	3231	1	4186	0	5141	0
367	0	1322	0	2277	0	3232	1	4187	0	5142	0
368	0	1323	0	2278	0	3233	0	4188	0	5143	1
369	0	1324	1	2279	0	3234	0	4189	1	5144	1
370	1	1325	1	2280	0	3235	0	4190	0	5145	1
371	1	1326	1	2281	0	3236	1	4191	0	5146	1
372	0	1327	0	2282	0	3237	0	4192	0	5147	1
373	0	1328	1	2283	1	3238	1	4193	0	5148	0
374	0	1329	0	2284	1	3239	1	4194	1	5149	1
375	1	1330	1	2285	1	3240	0	4195	0	5150	1
376	0	1331	0	2286	0	3241	1	4196	1	5151	1
377	0	1332	0	2287	0	3242	0	4197	1	5152	0
378	0	1333	1	2288	1	3243	0	4198	1	5153	0

379	1	1334	0	2289	1	3244	1	4199	0	5154	0
380	0	1335	1	2290	0	3245	1	4200	0	5155	0
381	1	1336	0	2291	0	3246	0	4201	1	5156	1
382	0	1337	0	2292	1	3247	0	4202	1	5157	1
383	0	1338	0	2293	1	3248	0	4203	1	5158	1
384	0	1339	0	2294	0	3249	1	4204	0	5159	0
385	0	1340	0	2295	0	3250	0	4205	1	5160	0
386	1	1341	0	2296	0	3251	0	4206	0	5161	0
387	0	1342	1	2297	1	3252	1	4207	1	5162	1
388	0	1343	0	2298	1	3253	1	4208	0	5163	0
389	1	1344	0	2299	0	3254	1	4209	0	5164	1
390	1	1345	0	2300	1	3255	1	4210	1	5165	0
391	0	1346	0	2301	1	3256	0	4211	1	5166	1
392	1	1347	1	2302	1	3257	0	4212	0	5167	0
393	0	1348	1	2303	1	3258	0	4213	0	5168	1
394	0	1349	1	2304	0	3259	1	4214	1	5169	1
395	0	1350	1	2305	0	3260	1	4215	1	5170	0
396	1	1351	0	2306	1	3261	1	4216	0	5171	0
397	1	1352	0	2307	0	3262	0	4217	0	5172	0
398	1	1353	0	2308	0	3263	1	4218	0	5173	0
399	1	1354	0	2309	0	3264	0	4219	1	5174	0
400	1	1355	0	2310	1	3265	1	4220	0	5175	0
401	0	1356	1	2311	0	3266	0	4221	1	5176	0
402	0	1357	1	2312	1	3267	1	4222	1	5177	0
403	0	1358	0	2313	0	3268	0	4223	0	5178	1
404	0	1359	1	2314	1	3269	0	4224	1	5179	0
405	0	1360	0	2315	0	3270	0	4225	1	5180	0
406	1	1361	1	2316	1	3271	0	4226	0	5181	0
407	1	1362	0	2317	0	3272	1	4227	1	5182	0
408	0	1363	1	2318	0	3273	1	4228	1	5183	1
409	1	1364	0	2319	1	3274	1	4229	1	5184	0
410	0	1365	0	2320	0	3275	0	4230	1	5185	0
411	0	1366	1	2321	0	3276	0	4231	0	5186	1
412	0	1367	0	2322	1	3277	1	4232	1	5187	0
413	0	1368	0	2323	0	3278	0	4233	1	5188	0
414	0	1369	1	2324	1	3279	1	4234	1	5189	1
415	0	1370	1	2325	0	3280	0	4235	1	5190	1
416	1	1371	1	2326	0	3281	1	4236	1	5191	1
417	1	1372	1	2327	0	3282	1	4237	1	5192	1
418	0	1373	1	2328	0	3283	0	4238	0	5193	0
419	0	1374	1	2329	1	3284	1	4239	0	5194	0
420	0	1375	0	2330	1	3285	0	4240	0	5195	1
421	0	1376	1	2331	1	3286	1	4241	1	5196	1
422	1	1377	1	2332	1	3287	0	4242	0	5197	1

423	1	1378	1	2333	1	3288	0	4243	1	5198	0
424	1	1379	0	2334	0	3289	1	4244	1	5199	1
425	0	1380	1	2335	1	3290	1	4245	1	5200	0
426	1	1381	0	2336	1	3291	0	4246	1	5201	0
427	1	1382	1	2337	1	3292	0	4247	0	5202	0
428	0	1383	1	2338	1	3293	0	4248	0	5203	0
429	0	1384	0	2339	1	3294	0	4249	1	5204	1
430	1	1385	1	2340	0	3295	0	4250	1	5205	1
431	1	1386	1	2341	0	3296	0	4251	1	5206	1
432	1	1387	0	2342	0	3297	0	4252	1	5207	1
433	1	1388	0	2343	0	3298	0	4253	0	5208	0
434	1	1389	0	2344	1	3299	0	4254	0	5209	1
435	1	1390	1	2345	1	3300	1	4255	1	5210	0
436	0	1391	0	2346	1	3301	0	4256	0	5211	1
437	0	1392	1	2347	1	3302	1	4257	1	5212	0
438	0	1393	0	2348	0	3303	1	4258	0	5213	1
439	0	1394	0	2349	0	3304	1	4259	0	5214	1
440	0	1395	1	2350	1	3305	0	4260	1	5215	1
441	0	1396	0	2351	0	3306	0	4261	0	5216	0
442	0	1397	0	2352	0	3307	1	4262	1	5217	0
443	1	1398	0	2353	0	3308	1	4263	1	5218	0
444	0	1399	1	2354	1	3309	1	4264	0	5219	0
445	1	1400	1	2355	1	3310	0	4265	1	5220	1
446	0	1401	0	2356	1	3311	1	4266	0	5221	0
447	1	1402	0	2357	0	3312	0	4267	0	5222	0
448	0	1403	1	2358	0	3313	1	4268	0	5223	1
449	1	1404	1	2359	0	3314	0	4269	1	5224	0
450	0	1405	1	2360	0	3315	0	4270	1	5225	1
451	1	1406	0	2361	1	3316	0	4271	1	5226	0
452	1	1407	1	2362	1	3317	1	4272	0	5227	1
453	0	1408	1	2363	0	3318	1	4273	0	5228	1
454	0	1409	1	2364	0	3319	0	4274	1	5229	1
455	1	1410	1	2365	1	3320	0	4275	0	5230	0
456	0	1411	1	2366	1	3321	0	4276	1	5231	0
457	0	1412	0	2367	1	3322	1	4277	1	5232	0
458	0	1413	1	2368	0	3323	1	4278	0	5233	1
459	1	1414	0	2369	0	3324	1	4279	1	5234	0
460	1	1415	0	2370	0	3325	0	4280	1	5235	0
461	1	1416	1	2371	0	3326	1	4281	0	5236	1
462	1	1417	0	2372	0	3327	0	4282	0	5237	0
463	0	1418	1	2373	1	3328	1	4283	0	5238	0
464	1	1419	0	2374	0	3329	0	4284	0	5239	1
465	1	1420	1	2375	1	3330	1	4285	0	5240	1
466	1	1421	1	2376	1	3331	0	4286	0	5241	1

467	1	1422	0	2377	1	3332	1	4287	1	5242	0
468	0	1423	0	2378	1	3333	0	4288	0	5243	0
469	1	1424	0	2379	1	3334	0	4289	0	5244	0
470	1	1425	0	2380	0	3335	0	4290	0	5245	1
471	1	1426	1	2381	0	3336	1	4291	0	5246	1
472	0	1427	0	2382	1	3337	0	4292	1	5247	1
473	0	1428	0	2383	1	3338	0	4293	0	5248	1
474	0	1429	1	2384	1	3339	1	4294	1	5249	0
475	0	1430	1	2385	1	3340	1	4295	1	5250	0
476	0	1431	0	2386	0	3341	0	4296	0	5251	0
477	1	1432	0	2387	1	3342	0	4297	0	5252	0
478	0	1433	0	2388	1	3343	0	4298	0	5253	1
479	1	1434	0	2389	0	3344	1	4299	1	5254	1
480	1	1435	1	2390	1	3345	0	4300	1	5255	0
481	1	1436	1	2391	0	3346	1	4301	1	5256	1
482	1	1437	0	2392	0	3347	1	4302	1	5257	1
483	1	1438	1	2393	0	3348	1	4303	0	5258	1
484	0	1439	0	2394	0	3349	1	4304	0	5259	1
485	1	1440	0	2395	1	3350	0	4305	0	5260	0
486	1	1441	1	2396	0	3351	1	4306	0	5261	1
487	1	1442	1	2397	1	3352	1	4307	1	5262	1
488	1	1443	1	2398	0	3353	1	4308	1	5263	0
489	1	1444	1	2399	1	3354	0	4309	0	5264	0
490	0	1445	0	2400	1	3355	0	4310	0	5265	1
491	0	1446	0	2401	0	3356	0	4311	0	5266	0
492	0	1447	0	2402	0	3357	0	4312	0	5267	0
493	0	1448	0	2403	1	3358	0	4313	0	5268	1
494	0	1449	1	2404	0	3359	0	4314	1	5269	1
495	1	1450	1	2405	0	3360	0	4315	1	5270	1
496	1	1451	0	2406	0	3361	1	4316	1	5271	0
497	1	1452	0	2407	1	3362	1	4317	1	5272	0
498	0	1453	0	2408	1	3363	1	4318	0	5273	0
499	1	1454	0	2409	0	3364	0	4319	0	5274	1
500	1	1455	1	2410	0	3365	1	4320	0	5275	0
501	1	1456	0	2411	0	3366	0	4321	0	5276	1
502	0	1457	1	2412	1	3367	1	4322	0	5277	1
503	1	1458	0	2413	0	3368	1	4323	0	5278	1
504	1	1459	1	2414	1	3369	1	4324	1	5279	0
505	1	1460	0	2415	1	3370	0	4325	0	5280	0
506	0	1461	1	2416	1	3371	0	4326	0	5281	1
507	1	1462	0	2417	1	3372	0	4327	1	5282	0
508	1	1463	1	2418	1	3373	0	4328	1	5283	0
509	1	1464	0	2419	0	3374	1	4329	1	5284	0
510	1	1465	0	2420	0	3375	0	4330	0	5285	0

511	1	1466	0	2421	0	3376	0	4331	1	5286	1
512	0	1467	1	2422	0	3377	1	4332	0	5287	1
513	1	1468	1	2423	1	3378	0	4333	0	5288	0
514	1	1469	0	2424	1	3379	1	4334	0	5289	1
515	1	1470	0	2425	1	3380	0	4335	1	5290	0
516	1	1471	1	2426	0	3381	1	4336	1	5291	1
517	1	1472	1	2427	1	3382	1	4337	1	5292	0
518	1	1473	0	2428	0	3383	0	4338	1	5293	0
519	1	1474	0	2429	0	3384	1	4339	0	5294	0
520	1	1475	0	2430	1	3385	1	4340	1	5295	1
521	1	1476	0	2431	1	3386	0	4341	0	5296	0
522	0	1477	1	2432	0	3387	0	4342	1	5297	1
523	0	1478	0	2433	0	3388	0	4343	1	5298	1
524	0	1479	1	2434	0	3389	1	4344	0	5299	0
525	1	1480	1	2435	1	3390	1	4345	0	5300	1
526	1	1481	0	2436	1	3391	1	4346	0	5301	0
527	1	1482	1	2437	1	3392	0	4347	0	5302	0
528	1	1483	1	2438	0	3393	1	4348	1	5303	0
529	0	1484	1	2439	1	3394	1	4349	1	5304	0
530	1	1485	1	2440	0	3395	0	4350	0	5305	1
531	1	1486	1	2441	1	3396	0	4351	0	5306	1
532	1	1487	0	2442	0	3397	1	4352	0	5307	1
533	0	1488	1	2443	1	3398	0	4353	1	5308	0
534	1	1489	1	2444	0	3399	0	4354	0	5309	1
535	1	1490	1	2445	0	3400	0	4355	0	5310	1
536	0	1491	0	2446	1	3401	1	4356	0	5311	1
537	0	1492	1	2447	0	3402	0	4357	0	5312	0
538	0	1493	0	2448	1	3403	0	4358	1	5313	0
539	1	1494	0	2449	0	3404	0	4359	0	5314	1
540	1	1495	0	2450	1	3405	0	4360	0	5315	1
541	0	1496	1	2451	1	3406	1	4361	1	5316	0
542	1	1497	0	2452	1	3407	1	4362	0	5317	1
543	1	1498	0	2453	1	3408	1	4363	0	5318	0
544	0	1499	1	2454	1	3409	1	4364	1	5319	1
545	0	1500	0	2455	1	3410	0	4365	1	5320	1
546	1	1501	1	2456	1	3411	0	4366	0	5321	1
547	1	1502	1	2457	1	3412	1	4367	1	5322	0
548	0	1503	0	2458	0	3413	0	4368	0	5323	1
549	0	1504	1	2459	1	3414	0	4369	1	5324	1
550	1	1505	0	2460	0	3415	1	4370	0	5325	0
551	1	1506	1	2461	0	3416	1	4371	1	5326	1
552	0	1507	0	2462	1	3417	0	4372	0	5327	0
553	0	1508	1	2463	1	3418	1	4373	1	5328	1
554	0	1509	0	2464	1	3419	1	4374	1	5329	1

555	0	1510	0	2465	1	3420	1	4375	1	5330	1
556	0	1511	1	2466	1	3421	1	4376	0	5331	0
557	0	1512	1	2467	1	3422	1	4377	1	5332	0
558	1	1513	1	2468	0	3423	0	4378	1	5333	0
559	1	1514	0	2469	1	3424	0	4379	1	5334	1
560	1	1515	0	2470	0	3425	0	4380	1	5335	0
561	0	1516	0	2471	0	3426	1	4381	0	5336	1
562	0	1517	0	2472	0	3427	1	4382	1	5337	0
563	0	1518	1	2473	0	3428	0	4383	1	5338	0
564	1	1519	1	2474	0	3429	0	4384	0	5339	0
565	0	1520	1	2475	0	3430	1	4385	1	5340	0
566	1	1521	1	2476	1	3431	1	4386	1	5341	1
567	0	1522	0	2477	1	3432	1	4387	0	5342	1
568	0	1523	1	2478	1	3433	0	4388	0	5343	1
569	1	1524	1	2479	1	3434	1	4389	0	5344	1
570	0	1525	1	2480	0	3435	0	4390	1	5345	0
571	1	1526	1	2481	1	3436	0	4391	1	5346	1
572	1	1527	0	2482	1	3437	0	4392	0	5347	1
573	0	1528	0	2483	0	3438	1	4393	0	5348	0
574	1	1529	1	2484	1	3439	1	4394	0	5349	1
575	0	1530	0	2485	1	3440	0	4395	1	5350	1
576	0	1531	1	2486	1	3441	1	4396	1	5351	0
577	0	1532	1	2487	0	3442	1	4397	0	5352	0
578	1	1533	1	2488	1	3443	0	4398	0	5353	0
579	0	1534	1	2489	1	3444	1	4399	1	5354	1
580	0	1535	1	2490	1	3445	0	4400	0	5355	1
581	1	1536	0	2491	0	3446	1	4401	1	5356	0
582	0	1537	0	2492	1	3447	1	4402	0	5357	1
583	1	1538	1	2493	0	3448	0	4403	0	5358	1
584	1	1539	1	2494	0	3449	1	4404	1	5359	0
585	0	1540	0	2495	1	3450	0	4405	1	5360	1
586	0	1541	0	2496	1	3451	0	4406	1	5361	0
587	1	1542	0	2497	1	3452	1	4407	1	5362	1
588	1	1543	1	2498	0	3453	0	4408	0	5363	0
589	0	1544	1	2499	1	3454	1	4409	1	5364	0
590	1	1545	0	2500	0	3455	1	4410	1	5365	1
591	0	1546	0	2501	0	3456	1	4411	1	5366	1
592	1	1547	1	2502	0	3457	1	4412	1	5367	0
593	0	1548	0	2503	0	3458	0	4413	1	5368	1
594	1	1549	1	2504	1	3459	0	4414	0	5369	1
595	1	1550	0	2505	0	3460	1	4415	1	5370	1
596	0	1551	1	2506	0	3461	0	4416	0	5371	0
597	1	1552	1	2507	1	3462	0	4417	0	5372	0
598	1	1553	0	2508	0	3463	0	4418	1	5373	0

599	1	1554	0	2509	1	3464	1	4419	1	5374	0
600	1	1555	0	2510	0	3465	0	4420	0	5375	0
601	1	1556	1	2511	1	3466	1	4421	0	5376	0
602	0	1557	0	2512	0	3467	1	4422	1	5377	0
603	0	1558	0	2513	1	3468	1	4423	1	5378	0
604	1	1559	0	2514	1	3469	0	4424	0	5379	0
605	0	1560	0	2515	0	3470	0	4425	0	5380	1
606	1	1561	0	2516	1	3471	0	4426	1	5381	0
607	1	1562	1	2517	1	3472	0	4427	1	5382	1
608	0	1563	1	2518	1	3473	1	4428	1	5383	0
609	0	1564	1	2519	1	3474	0	4429	0	5384	1
610	0	1565	1	2520	1	3475	0	4430	0	5385	1
611	0	1566	1	2521	1	3476	1	4431	0	5386	0
612	0	1567	0	2522	0	3477	1	4432	1	5387	0
613	1	1568	1	2523	1	3478	1	4433	1	5388	0
614	0	1569	1	2524	1	3479	0	4434	1	5389	0
615	1	1570	0	2525	1	3480	1	4435	0	5390	1
616	0	1571	1	2526	0	3481	1	4436	0	5391	0
617	0	1572	1	2527	1	3482	0	4437	0	5392	0
618	1	1573	0	2528	1	3483	1	4438	1	5393	1
619	1	1574	0	2529	0	3484	1	4439	0	5394	0
620	1	1575	0	2530	1	3485	1	4440	1	5395	1
621	1	1576	1	2531	0	3486	0	4441	0	5396	0
622	1	1577	0	2532	1	3487	0	4442	1	5397	0
623	0	1578	1	2533	1	3488	1	4443	0	5398	1
624	0	1579	0	2534	1	3489	1	4444	0	5399	1
625	1	1580	1	2535	1	3490	1	4445	0	5400	1
626	1	1581	1	2536	1	3491	1	4446	1	5401	1
627	1	1582	1	2537	0	3492	1	4447	0	5402	0
628	0	1583	1	2538	1	3493	0	4448	1	5403	1
629	0	1584	1	2539	1	3494	0	4449	0	5404	0
630	0	1585	1	2540	1	3495	0	4450	0	5405	1
631	0	1586	0	2541	0	3496	0	4451	0	5406	1
632	0	1587	1	2542	0	3497	0	4452	1	5407	1
633	1	1588	0	2543	1	3498	0	4453	0	5408	0
634	1	1589	0	2544	1	3499	0	4454	0	5409	0
635	1	1590	0	2545	1	3500	1	4455	0	5410	0
636	0	1591	0	2546	0	3501	1	4456	1	5411	0
637	0	1592	1	2547	1	3502	1	4457	1	5412	1
638	1	1593	1	2548	1	3503	1	4458	0	5413	1
639	1	1594	0	2549	1	3504	0	4459	1	5414	0
640	0	1595	1	2550	1	3505	0	4460	1	5415	0
641	0	1596	1	2551	1	3506	1	4461	0	5416	0
642	0	1597	1	2552	0	3507	1	4462	1	5417	0

643	1	1598	0	2553	1	3508	1	4463	0	5418	1
644	1	1599	1	2554	1	3509	1	4464	0	5419	1
645	1	1600	1	2555	1	3510	0	4465	1	5420	0
646	1	1601	1	2556	0	3511	0	4466	1	5421	1
647	0	1602	0	2557	0	3512	1	4467	1	5422	1
648	0	1603	1	2558	1	3513	0	4468	0	5423	0
649	1	1604	1	2559	1	3514	1	4469	0	5424	1
650	0	1605	1	2560	1	3515	1	4470	1	5425	0
651	1	1606	1	2561	1	3516	0	4471	1	5426	0
652	1	1607	1	2562	1	3517	1	4472	1	5427	0
653	0	1608	0	2563	1	3518	0	4473	1	5428	1
654	0	1609	1	2564	1	3519	0	4474	1	5429	1
655	1	1610	0	2565	0	3520	1	4475	0	5430	0
656	1	1611	0	2566	1	3521	0	4476	0	5431	1
657	1	1612	1	2567	0	3522	1	4477	0	5432	1
658	0	1613	1	2568	1	3523	1	4478	0	5433	1
659	1	1614	0	2569	0	3524	1	4479	1	5434	1
660	0	1615	1	2570	0	3525	1	4480	1	5435	1
661	1	1616	0	2571	0	3526	1	4481	0	5436	0
662	0	1617	1	2572	0	3527	0	4482	1	5437	0
663	1	1618	1	2573	1	3528	0	4483	1	5438	1
664	1	1619	1	2574	0	3529	1	4484	1	5439	1
665	0	1620	0	2575	1	3530	0	4485	1	5440	1
666	0	1621	1	2576	0	3531	0	4486	0	5441	0
667	1	1622	0	2577	1	3532	0	4487	1	5442	0
668	1	1623	0	2578	1	3533	0	4488	0	5443	0
669	0	1624	1	2579	1	3534	1	4489	0	5444	1
670	1	1625	0	2580	1	3535	0	4490	0	5445	0
671	0	1626	0	2581	1	3536	0	4491	0	5446	1
672	0	1627	1	2582	0	3537	0	4492	1	5447	0
673	0	1628	0	2583	0	3538	1	4493	0	5448	0
674	1	1629	0	2584	0	3539	0	4494	1	5449	1
675	0	1630	0	2585	0	3540	0	4495	1	5450	1
676	1	1631	1	2586	1	3541	0	4496	0	5451	0
677	0	1632	1	2587	1	3542	1	4497	1	5452	1
678	0	1633	1	2588	1	3543	0	4498	1	5453	1
679	0	1634	1	2589	0	3544	1	4499	0	5454	1
680	1	1635	0	2590	0	3545	1	4500	0	5455	0
681	0	1636	1	2591	0	3546	0	4501	1	5456	0
682	0	1637	1	2592	0	3547	0	4502	0	5457	0
683	0	1638	1	2593	0	3548	1	4503	0	5458	0
684	0	1639	1	2594	1	3549	0	4504	1	5459	0
685	0	1640	1	2595	0	3550	1	4505	0	5460	0
686	0	1641	1	2596	1	3551	1	4506	1	5461	0

687	1	1642	0	2597	1	3552	0	4507	1	5462	1
688	0	1643	1	2598	0	3553	0	4508	0	5463	0
689	0	1644	1	2599	1	3554	1	4509	1	5464	0
690	0	1645	1	2600	1	3555	0	4510	0	5465	1
691	1	1646	1	2601	0	3556	1	4511	1	5466	1
692	0	1647	0	2602	1	3557	0	4512	1	5467	0
693	1	1648	1	2603	0	3558	1	4513	1	5468	0
694	0	1649	0	2604	0	3559	1	4514	1	5469	1
695	0	1650	1	2605	0	3560	0	4515	0	5470	0
696	0	1651	1	2606	1	3561	1	4516	1	5471	0
697	0	1652	1	2607	1	3562	1	4517	0	5472	0
698	1	1653	0	2608	1	3563	1	4518	0	5473	1
699	0	1654	1	2609	1	3564	1	4519	1	5474	0
700	0	1655	0	2610	1	3565	1	4520	1	5475	1
701	1	1656	1	2611	1	3566	0	4521	1	5476	0
702	1	1657	0	2612	0	3567	1	4522	0	5477	0
703	0	1658	1	2613	0	3568	0	4523	1	5478	0
704	0	1659	1	2614	0	3569	0	4524	0	5479	1
705	0	1660	1	2615	0	3570	1	4525	1	5480	0
706	1	1661	1	2616	0	3571	0	4526	0	5481	0
707	1	1662	1	2617	0	3572	1	4527	1	5482	0
708	0	1663	0	2618	1	3573	1	4528	1	5483	0
709	1	1664	1	2619	0	3574	1	4529	0	5484	1
710	1	1665	0	2620	1	3575	1	4530	1	5485	0
711	0	1666	0	2621	0	3576	0	4531	0	5486	1
712	1	1667	1	2622	0	3577	1	4532	0	5487	1
713	0	1668	1	2623	0	3578	1	4533	1	5488	1
714	0	1669	1	2624	1	3579	0	4534	1	5489	0
715	0	1670	1	2625	1	3580	1	4535	1	5490	1
716	0	1671	1	2626	1	3581	0	4536	0	5491	1
717	1	1672	0	2627	1	3582	0	4537	0	5492	0
718	0	1673	0	2628	1	3583	1	4538	0	5493	1
719	0	1674	1	2629	1	3584	0	4539	1	5494	0
720	1	1675	1	2630	1	3585	1	4540	0	5495	0
721	0	1676	0	2631	1	3586	0	4541	0	5496	1
722	0	1677	0	2632	1	3587	1	4542	0	5497	1
723	0	1678	1	2633	1	3588	1	4543	0	5498	1
724	0	1679	1	2634	1	3589	0	4544	0	5499	1
725	0	1680	0	2635	0	3590	1	4545	1	5500	1
726	0	1681	1	2636	1	3591	0	4546	1	5501	1
727	0	1682	1	2637	0	3592	1	4547	0	5502	1
728	1	1683	1	2638	1	3593	0	4548	1	5503	0
729	0	1684	0	2639	0	3594	1	4549	0	5504	0
730	1	1685	1	2640	0	3595	1	4550	0	5505	1

731	0	1686	1	2641	1	3596	1	4551	0	5506	0
732	0	1687	1	2642	0	3597	0	4552	1	5507	0
733	0	1688	0	2643	1	3598	1	4553	0	5508	0
734	1	1689	1	2644	1	3599	1	4554	0	5509	1
735	1	1690	0	2645	1	3600	0	4555	0	5510	1
736	0	1691	0	2646	0	3601	0	4556	1	5511	0
737	0	1692	0	2647	1	3602	1	4557	0	5512	1
738	0	1693	1	2648	0	3603	1	4558	0	5513	1
739	1	1694	1	2649	1	3604	1	4559	0	5514	1
740	1	1695	0	2650	1	3605	1	4560	0	5515	0
741	1	1696	1	2651	0	3606	1	4561	1	5516	0
742	1	1697	1	2652	0	3607	1	4562	1	5517	1
743	0	1698	1	2653	1	3608	0	4563	0	5518	1
744	0	1699	1	2654	1	3609	1	4564	1	5519	0
745	1	1700	1	2655	0	3610	1	4565	0	5520	1
746	1	1701	1	2656	0	3611	0	4566	0	5521	0
747	1	1702	1	2657	1	3612	0	4567	0	5522	0
748	0	1703	1	2658	1	3613	0	4568	0	5523	0
749	1	1704	0	2659	1	3614	1	4569	0	5524	1
750	0	1705	0	2660	1	3615	1	4570	0	5525	0
751	0	1706	1	2661	1	3616	1	4571	0	5526	0
752	1	1707	1	2662	0	3617	1	4572	0	5527	1
753	0	1708	1	2663	1	3618	0	4573	1	5528	1
754	1	1709	1	2664	0	3619	0	4574	0	5529	1
755	1	1710	1	2665	1	3620	1	4575	1	5530	0
756	0	1711	0	2666	0	3621	0	4576	1	5531	0
757	1	1712	1	2667	1	3622	1	4577	1	5532	1
758	1	1713	0	2668	0	3623	0	4578	1	5533	0
759	0	1714	0	2669	0	3624	1	4579	0	5534	1
760	0	1715	1	2670	0	3625	0	4580	1	5535	1
761	0	1716	1	2671	1	3626	0	4581	0	5536	1
762	1	1717	0	2672	0	3627	1	4582	1	5537	1
763	0	1718	1	2673	0	3628	0	4583	1	5538	0
764	0	1719	0	2674	1	3629	0	4584	0	5539	1
765	1	1720	1	2675	1	3630	0	4585	0	5540	0
766	0	1721	1	2676	0	3631	1	4586	0	5541	1
767	1	1722	0	2677	0	3632	0	4587	0	5542	0
768	1	1723	1	2678	1	3633	0	4588	0	5543	1
769	1	1724	0	2679	1	3634	0	4589	1	5544	1
770	1	1725	1	2680	0	3635	0	4590	1	5545	0
771	0	1726	0	2681	0	3636	1	4591	1	5546	0
772	1	1727	1	2682	1	3637	1	4592	1	5547	0
773	1	1728	0	2683	0	3638	0	4593	1	5548	1
774	1	1729	1	2684	1	3639	0	4594	1	5549	0

775	0	1730	0	2685	1	3640	0	4595	1	5550	0
776	0	1731	0	2686	1	3641	1	4596	1	5551	1
777	0	1732	1	2687	1	3642	0	4597	0	5552	1
778	1	1733	1	2688	0	3643	0	4598	0	5553	0
779	0	1734	0	2689	0	3644	0	4599	1	5554	0
780	1	1735	0	2690	0	3645	0	4600	1	5555	1
781	0	1736	1	2691	0	3646	0	4601	1	5556	0
782	0	1737	0	2692	1	3647	1	4602	0	5557	1
783	0	1738	1	2693	0	3648	0	4603	1	5558	1
784	0	1739	0	2694	1	3649	1	4604	0	5559	1
785	1	1740	0	2695	1	3650	0	4605	1	5560	1
786	1	1741	0	2696	1	3651	0	4606	1	5561	1
787	0	1742	0	2697	0	3652	0	4607	0	5562	1
788	1	1743	0	2698	0	3653	0	4608	1	5563	0
789	1	1744	0	2699	0	3654	0	4609	0	5564	0
790	0	1745	1	2700	0	3655	0	4610	1	5565	0
791	1	1746	1	2701	0	3656	0	4611	0	5566	0
792	0	1747	1	2702	1	3657	0	4612	1	5567	0
793	1	1748	1	2703	1	3658	1	4613	1	5568	1
794	0	1749	0	2704	1	3659	0	4614	0	5569	0
795	0	1750	1	2705	1	3660	1	4615	1	5570	0
796	0	1751	0	2706	1	3661	0	4616	1	5571	0
797	1	1752	1	2707	1	3662	0	4617	0	5572	0
798	1	1753	0	2708	0	3663	0	4618	0	5573	1
799	1	1754	0	2709	1	3664	1	4619	0	5574	0
800	1	1755	1	2710	0	3665	0	4620	0	5575	0
801	0	1756	1	2711	0	3666	0	4621	0	5576	0
802	0	1757	0	2712	1	3667	0	4622	1	5577	1
803	1	1758	1	2713	0	3668	1	4623	1	5578	1
804	0	1759	0	2714	1	3669	1	4624	0	5579	0
805	1	1760	1	2715	0	3670	0	4625	1	5580	0
806	0	1761	0	2716	0	3671	1	4626	0	5581	0
807	0	1762	1	2717	1	3672	0	4627	0	5582	0
808	0	1763	0	2718	1	3673	0	4628	0	5583	1
809	1	1764	1	2719	0	3674	0	4629	0	5584	0
810	1	1765	1	2720	1	3675	0	4630	0	5585	0
811	0	1766	1	2721	1	3676	1	4631	1	5586	1
812	1	1767	0	2722	1	3677	0	4632	1	5587	1
813	0	1768	1	2723	0	3678	0	4633	0	5588	0
814	1	1769	1	2724	0	3679	1	4634	0	5589	0
815	1	1770	0	2725	0	3680	1	4635	0	5590	1
816	0	1771	0	2726	1	3681	0	4636	1	5591	1
817	0	1772	0	2727	0	3682	1	4637	1	5592	0
818	0	1773	1	2728	0	3683	1	4638	1	5593	1

819	0	1774	1	2729	0	3684	1	4639	1	5594	1
820	1	1775	0	2730	1	3685	1	4640	1	5595	1
821	0	1776	0	2731	1	3686	1	4641	0	5596	1
822	1	1777	1	2732	0	3687	0	4642	0	5597	1
823	0	1778	0	2733	1	3688	0	4643	0	5598	1
824	0	1779	1	2734	1	3689	1	4644	0	5599	0
825	0	1780	0	2735	1	3690	0	4645	0	5600	1
826	1	1781	1	2736	1	3691	0	4646	1	5601	0
827	0	1782	0	2737	0	3692	0	4647	0	5602	0
828	1	1783	1	2738	1	3693	0	4648	0	5603	1
829	1	1784	0	2739	1	3694	1	4649	0	5604	0
830	0	1785	1	2740	1	3695	0	4650	1	5605	1
831	0	1786	1	2741	1	3696	0	4651	0	5606	1
832	1	1787	0	2742	0	3697	1	4652	0	5607	1
833	0	1788	1	2743	0	3698	0	4653	1	5608	0
834	1	1789	1	2744	0	3699	1	4654	0	5609	0
835	1	1790	1	2745	0	3700	1	4655	0	5610	0
836	0	1791	1	2746	1	3701	1	4656	0	5611	1
837	1	1792	0	2747	0	3702	0	4657	1	5612	1
838	0	1793	1	2748	1	3703	1	4658	1	5613	0
839	0	1794	1	2749	1	3704	0	4659	1	5614	0
840	0	1795	0	2750	0	3705	1	4660	1	5615	1
841	1	1796	1	2751	1	3706	0	4661	0	5616	1
842	1	1797	0	2752	0	3707	0	4662	1	5617	0
843	1	1798	0	2753	1	3708	0	4663	1	5618	1
844	0	1799	1	2754	0	3709	0	4664	0	5619	1
845	0	1800	0	2755	0	3710	1	4665	0	5620	1
846	1	1801	1	2756	1	3711	0	4666	1	5621	0
847	0	1802	0	2757	1	3712	1	4667	0	5622	0
848	1	1803	0	2758	0	3713	0	4668	0	5623	0
849	0	1804	0	2759	1	3714	1	4669	0	5624	0
850	1	1805	1	2760	0	3715	1	4670	1	5625	0
851	1	1806	0	2761	1	3716	1	4671	1	5626	0
852	1	1807	0	2762	0	3717	1	4672	0	5627	0
853	1	1808	1	2763	0	3718	0	4673	1	5628	0
854	1	1809	0	2764	1	3719	1	4674	1	5629	0
855	0	1810	1	2765	0	3720	1	4675	1	5630	1
856	1	1811	0	2766	1	3721	0	4676	0	5631	0
857	0	1812	1	2767	0	3722	0	4677	1	5632	1
858	0	1813	0	2768	1	3723	1	4678	0	5633	0
859	1	1814	1	2769	1	3724	0	4679	1	5634	0
860	1	1815	0	2770	1	3725	0	4680	0	5635	1
861	1	1816	0	2771	1	3726	0	4681	1	5636	1
862	1	1817	1	2772	1	3727	1	4682	0	5637	1

863	1	1818	1	2773	1	3728	0	4683	1	5638	1
864	1	1819	1	2774	1	3729	1	4684	1	5639	0
865	1	1820	0	2775	0	3730	0	4685	1	5640	0
866	1	1821	1	2776	1	3731	1	4686	1	5641	0
867	0	1822	1	2777	1	3732	1	4687	1	5642	1
868	1	1823	1	2778	1	3733	1	4688	0	5643	0
869	1	1824	1	2779	0	3734	0	4689	0	5644	1
870	1	1825	1	2780	0	3735	1	4690	1	5645	1
871	1	1826	0	2781	1	3736	1	4691	1	5646	0
872	1	1827	0	2782	1	3737	0	4692	0	5647	0
873	0	1828	1	2783	0	3738	1	4693	0	5648	0
874	0	1829	0	2784	0	3739	1	4694	1	5649	0
875	0	1830	1	2785	0	3740	0	4695	0	5650	1
876	0	1831	0	2786	1	3741	1	4696	0	5651	0
877	0	1832	0	2787	0	3742	0	4697	0	5652	1
878	0	1833	0	2788	0	3743	1	4698	1	5653	0
879	1	1834	1	2789	1	3744	0	4699	1	5654	1
880	1	1835	0	2790	0	3745	1	4700	1	5655	0
881	1	1836	1	2791	0	3746	0	4701	0	5656	0
882	0	1837	1	2792	0	3747	1	4702	0	5657	1
883	1	1838	1	2793	0	3748	0	4703	0	5658	0
884	0	1839	0	2794	0	3749	0	4704	1	5659	1
885	1	1840	1	2795	1	3750	0	4705	1	5660	1
886	1	1841	1	2796	1	3751	1	4706	0	5661	1
887	1	1842	0	2797	0	3752	1	4707	1	5662	1
888	1	1843	0	2798	0	3753	1	4708	0	5663	1
889	0	1844	0	2799	0	3754	1	4709	1	5664	0
890	1	1845	1	2800	1	3755	0	4710	0	5665	0
891	1	1846	1	2801	1	3756	1	4711	0	5666	0
892	1	1847	1	2802	0	3757	1	4712	0	5667	0
893	0	1848	1	2803	0	3758	0	4713	0	5668	0
894	1	1849	0	2804	1	3759	0	4714	1	5669	1
895	0	1850	1	2805	0	3760	1	4715	0	5670	1
896	1	1851	0	2806	0	3761	0	4716	1	5671	0
897	0	1852	0	2807	0	3762	0	4717	0	5672	1
898	1	1853	1	2808	1	3763	1	4718	1	5673	0
899	0	1854	0	2809	1	3764	0	4719	1	5674	1
900	0	1855	0	2810	0	3765	1	4720	0	5675	1
901	0	1856	1	2811	1	3766	0	4721	0	5676	1
902	0	1857	1	2812	1	3767	1	4722	1	5677	1
903	1	1858	0	2813	0	3768	0	4723	1	5678	0
904	1	1859	0	2814	1	3769	1	4724	1	5679	0
905	1	1860	0	2815	0	3770	1	4725	1	5680	0
906	1	1861	1	2816	0	3771	0	4726	0	5681	1

907	1	1862	1	2817	1	3772	1	4727	0	5682	1
908	1	1863	1	2818	1	3773	0	4728	1	5683	0
909	1	1864	1	2819	0	3774	1	4729	1	5684	0
910	0	1865	0	2820	0	3775	1	4730	1	5685	1
911	1	1866	0	2821	1	3776	1	4731	0	5686	1
912	1	1867	1	2822	0	3777	0	4732	1	5687	0
913	1	1868	0	2823	1	3778	0	4733	1	5688	0
914	1	1869	0	2824	1	3779	1	4734	0	5689	0
915	1	1870	0	2825	1	3780	1	4735	1	5690	0
916	1	1871	0	2826	0	3781	0	4736	1	5691	0
917	1	1872	1	2827	1	3782	1	4737	0	5692	0
918	0	1873	0	2828	1	3783	1	4738	0	5693	1
919	1	1874	0	2829	1	3784	0	4739	0	5694	0
920	1	1875	1	2830	1	3785	0	4740	1	5695	1
921	1	1876	0	2831	0	3786	1	4741	0	5696	1
922	1	1877	1	2832	0	3787	0	4742	1	5697	0
923	0	1878	1	2833	0	3788	1	4743	1	5698	1
924	1	1879	1	2834	0	3789	1	4744	1	5699	1
925	1	1880	0	2835	1	3790	1	4745	1	5700	1
926	0	1881	0	2836	0	3791	1	4746	0	5701	1
927	0	1882	0	2837	0	3792	0	4747	0	5702	0
928	1	1883	0	2838	1	3793	0	4748	0	5703	0
929	0	1884	1	2839	1	3794	1	4749	1	5704	1
930	1	1885	0	2840	0	3795	1	4750	1	5705	1
931	1	1886	1	2841	1	3796	1	4751	0	5706	0
932	1	1887	1	2842	0	3797	0	4752	1	5707	0
933	1	1888	1	2843	0	3798	0	4753	1	5708	1
934	1	1889	1	2844	1	3799	1	4754	0	5709	0
935	0	1890	1	2845	0	3800	0	4755	1	5710	0
936	1	1891	0	2846	0	3801	1	4756	0	5711	1
937	0	1892	1	2847	1	3802	0	4757	1	5712	1
938	0	1893	1	2848	0	3803	0	4758	1	5713	1
939	0	1894	0	2849	1	3804	0	4759	1	5714	1
940	1	1895	0	2850	0	3805	1	4760	1	5715	0
941	1	1896	1	2851	1	3806	1	4761	0	5716	0
942	0	1897	0	2852	1	3807	0	4762	0	5717	1
943	1	1898	1	2853	0	3808	0	4763	1	5718	1
944	1	1899	0	2854	1	3809	1	4764	1	5719	0
945	1	1900	1	2855	0	3810	1	4765	1	5720	0
946	1	1901	0	2856	1	3811	0	4766	1	5721	0
947	1	1902	1	2857	0	3812	1	4767	1	5722	0
948	0	1903	1	2858	0	3813	0	4768	0	5723	0
949	1	1904	1	2859	0	3814	0	4769	0	5724	1
950	1	1905	0	2860	0	3815	0	4770	0	5725	0

951	1	1906	0	2861	0	3816	1	4771	1	5726	1
952	0	1907	1	2862	1	3817	0	4772	1	5727	0
953	1	1908	1	2863	1	3818	0	4773	0	5728	1
954	0	1909	1	2864	0	3819	1	4774	0		

UNIVERSITÉ DE STRASBOURG, CNRS, IRMA UMR 7501, F-67000 STRASBOURG, FRANCE
Email address: `guoniu.han@unistra.fr`

SCHOOL OF MATHEMATICS AND STATISTICS, HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, WUHAN, PR CHINA
Email address: `huyining@hust.edu.cn`