

# Rank-65665 over GF(32)

January 15, 2021

## The equation

The equation of the surface is :

$$X_1^3 + X_2^3 + X_3^3 + X_0^2 X_1 + X_0^2 X_2 + X_0^2 X_3 + X_0 X_1 X_2 = 0$$

( 0, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0 )

The point rank of the equation over GF(32) is -2078209979

## General information

Number of lines	4
Number of points	1089
Number of singular points	2
Number of Eckardt points	0
Number of double points	4
Number of single points	124
Number of points off lines	961
Number of Hesse planes	0
Number of axes	0
Type of points on lines	$33^4$
Type of lines on points	$2^4, 1^{124}, 0^{961}$

## Singular Points

The surface has 2 singular points:

$$0 : P_{1091} = \mathbf{P}(1, 1, 0, 1) = \mathbf{P}(1, 1, 0, 1)$$

$$1 : P_{2083} = \mathbf{P}(1, 0, 1, 1) = \mathbf{P}(1, 0, 1, 1)$$

## The 4 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \left[ \begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 0 \end{array} \right]_{1058} = \left[ \begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 0 \end{array} \right]_{1058} = \mathbf{Pl}(1, 0, 1, 0, 0, 1)_{34913}$$

$$\begin{aligned}\ell_1 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{32} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{32} = \mathbf{Pl}(1, 0, 0, 0, 1, 0)_{1090} \\ \ell_2 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{1025} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{1025} = \mathbf{Pl}(0, 0, 1, 0, 1, 0)_{1152} \\ \ell_3 &= \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{34882} = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{34882} = \mathbf{Pl}(1, 1, 1, 1, 0, 1)_{38818}\end{aligned}$$

Rank of lines: ( 1058, 32, 1025, 34882 )

Rank of points on Klein quadric: ( 34913, 1090, 1152, 38818 )

### Eckardt Points

The surface has 0 Eckardt points:

### Double Points

The surface has 4 Double points:

The double points on the surface are:

$$\begin{aligned}P_{67} &= (0, 1, 1, 0) = \ell_0 \cap \ell_3 \\ P_0 &= (1, 0, 0, 0) = \ell_1 \cap \ell_2 \\ P_{1091} &= (1, 1, 0, 1) = \ell_1 \cap \ell_3\end{aligned}$$

$$P_{2083} = (1, 0, 1, 1) = \ell_2 \cap \ell_3$$

### Single Points

The surface has 124 single points:

The single points on the surface are:

0 : $P_5 = (1, 1, 0, 0)$ lies on line $\ell_0$	22 : $P_{762} = (23, 22, 1, 0)$ lies on line $\ell_0$
1 : $P_{36} = (1, 0, 1, 0)$ lies on line $\ell_0$	23 : $P_{793} = (22, 23, 1, 0)$ lies on line $\ell_0$
2 : $P_{102} = (3, 2, 1, 0)$ lies on line $\ell_0$	24 : $P_{828} = (25, 24, 1, 0)$ lies on line $\ell_0$
3 : $P_{133} = (2, 3, 1, 0)$ lies on line $\ell_0$	25 : $P_{859} = (24, 25, 1, 0)$ lies on line $\ell_0$
4 : $P_{168} = (5, 4, 1, 0)$ lies on line $\ell_0$	26 : $P_{894} = (27, 26, 1, 0)$ lies on line $\ell_0$
5 : $P_{199} = (4, 5, 1, 0)$ lies on line $\ell_0$	27 : $P_{925} = (26, 27, 1, 0)$ lies on line $\ell_0$
6 : $P_{234} = (7, 6, 1, 0)$ lies on line $\ell_0$	28 : $P_{960} = (29, 28, 1, 0)$ lies on line $\ell_0$
7 : $P_{265} = (6, 7, 1, 0)$ lies on line $\ell_0$	29 : $P_{991} = (28, 29, 1, 0)$ lies on line $\ell_0$
8 : $P_{300} = (9, 8, 1, 0)$ lies on line $\ell_0$	30 : $P_{1026} = (31, 30, 1, 0)$ lies on line $\ell_0$
9 : $P_{331} = (8, 9, 1, 0)$ lies on line $\ell_0$	31 : $P_{1057} = (30, 31, 1, 0)$ lies on line $\ell_0$
10 : $P_{366} = (11, 10, 1, 0)$ lies on line $\ell_0$	32 : $P_{1090} = (0, 1, 0, 1)$ lies on line $\ell_1$
11 : $P_{397} = (10, 11, 1, 0)$ lies on line $\ell_0$	33 : $P_{1092} = (2, 1, 0, 1)$ lies on line $\ell_1$
12 : $P_{432} = (13, 12, 1, 0)$ lies on line $\ell_0$	34 : $P_{1093} = (3, 1, 0, 1)$ lies on line $\ell_1$
13 : $P_{463} = (12, 13, 1, 0)$ lies on line $\ell_0$	35 : $P_{1094} = (4, 1, 0, 1)$ lies on line $\ell_1$
14 : $P_{498} = (15, 14, 1, 0)$ lies on line $\ell_0$	36 : $P_{1095} = (5, 1, 0, 1)$ lies on line $\ell_1$
15 : $P_{529} = (14, 15, 1, 0)$ lies on line $\ell_0$	37 : $P_{1096} = (6, 1, 0, 1)$ lies on line $\ell_1$
16 : $P_{564} = (17, 16, 1, 0)$ lies on line $\ell_0$	38 : $P_{1097} = (7, 1, 0, 1)$ lies on line $\ell_1$
17 : $P_{595} = (16, 17, 1, 0)$ lies on line $\ell_0$	39 : $P_{1098} = (8, 1, 0, 1)$ lies on line $\ell_1$
18 : $P_{630} = (19, 18, 1, 0)$ lies on line $\ell_0$	40 : $P_{1099} = (9, 1, 0, 1)$ lies on line $\ell_1$
19 : $P_{661} = (18, 19, 1, 0)$ lies on line $\ell_0$	41 : $P_{1100} = (10, 1, 0, 1)$ lies on line $\ell_1$
20 : $P_{696} = (21, 20, 1, 0)$ lies on line $\ell_0$	42 : $P_{1101} = (11, 1, 0, 1)$ lies on line $\ell_1$
21 : $P_{727} = (20, 21, 1, 0)$ lies on line $\ell_0$	43 : $P_{1102} = (12, 1, 0, 1)$ lies on line $\ell_1$

44 :  $P_{1103} = (13, 1, 0, 1)$  lies on line  $\ell_1$   
 45 :  $P_{1104} = (14, 1, 0, 1)$  lies on line  $\ell_1$   
 46 :  $P_{1105} = (15, 1, 0, 1)$  lies on line  $\ell_1$   
 47 :  $P_{1106} = (16, 1, 0, 1)$  lies on line  $\ell_1$   
 48 :  $P_{1107} = (17, 1, 0, 1)$  lies on line  $\ell_1$   
 49 :  $P_{1108} = (18, 1, 0, 1)$  lies on line  $\ell_1$   
 50 :  $P_{1109} = (19, 1, 0, 1)$  lies on line  $\ell_1$   
 51 :  $P_{1110} = (20, 1, 0, 1)$  lies on line  $\ell_1$   
 52 :  $P_{1111} = (21, 1, 0, 1)$  lies on line  $\ell_1$   
 53 :  $P_{1112} = (22, 1, 0, 1)$  lies on line  $\ell_1$   
 54 :  $P_{1113} = (23, 1, 0, 1)$  lies on line  $\ell_1$   
 55 :  $P_{1114} = (24, 1, 0, 1)$  lies on line  $\ell_1$   
 56 :  $P_{1115} = (25, 1, 0, 1)$  lies on line  $\ell_1$   
 57 :  $P_{1116} = (26, 1, 0, 1)$  lies on line  $\ell_1$   
 58 :  $P_{1117} = (27, 1, 0, 1)$  lies on line  $\ell_1$   
 59 :  $P_{1118} = (28, 1, 0, 1)$  lies on line  $\ell_1$   
 60 :  $P_{1119} = (29, 1, 0, 1)$  lies on line  $\ell_1$   
 61 :  $P_{1120} = (30, 1, 0, 1)$  lies on line  $\ell_1$   
 62 :  $P_{1121} = (31, 1, 0, 1)$  lies on line  $\ell_1$   
 63 :  $P_{2082} = (0, 0, 1, 1)$  lies on line  $\ell_2$   
 64 :  $P_{2084} = (2, 0, 1, 1)$  lies on line  $\ell_2$   
 65 :  $P_{2085} = (3, 0, 1, 1)$  lies on line  $\ell_2$   
 66 :  $P_{2086} = (4, 0, 1, 1)$  lies on line  $\ell_2$   
 67 :  $P_{2087} = (5, 0, 1, 1)$  lies on line  $\ell_2$   
 68 :  $P_{2088} = (6, 0, 1, 1)$  lies on line  $\ell_2$   
 69 :  $P_{2089} = (7, 0, 1, 1)$  lies on line  $\ell_2$   
 70 :  $P_{2090} = (8, 0, 1, 1)$  lies on line  $\ell_2$   
 71 :  $P_{2091} = (9, 0, 1, 1)$  lies on line  $\ell_2$   
 72 :  $P_{2092} = (10, 0, 1, 1)$  lies on line  $\ell_2$   
 73 :  $P_{2093} = (11, 0, 1, 1)$  lies on line  $\ell_2$   
 74 :  $P_{2094} = (12, 0, 1, 1)$  lies on line  $\ell_2$   
 75 :  $P_{2095} = (13, 0, 1, 1)$  lies on line  $\ell_2$   
 76 :  $P_{2096} = (14, 0, 1, 1)$  lies on line  $\ell_2$   
 77 :  $P_{2097} = (15, 0, 1, 1)$  lies on line  $\ell_2$   
 78 :  $P_{2098} = (16, 0, 1, 1)$  lies on line  $\ell_2$   
 79 :  $P_{2099} = (17, 0, 1, 1)$  lies on line  $\ell_2$   
 80 :  $P_{2100} = (18, 0, 1, 1)$  lies on line  $\ell_2$   
 81 :  $P_{2101} = (19, 0, 1, 1)$  lies on line  $\ell_2$   
 82 :  $P_{2102} = (20, 0, 1, 1)$  lies on line  $\ell_2$   
 83 :  $P_{2103} = (21, 0, 1, 1)$  lies on line  $\ell_2$   
 84 :  $P_{2104} = (22, 0, 1, 1)$  lies on line  $\ell_2$

85 :  $P_{2105} = (23, 0, 1, 1)$  lies on line  $\ell_2$   
 86 :  $P_{2106} = (24, 0, 1, 1)$  lies on line  $\ell_2$   
 87 :  $P_{2107} = (25, 0, 1, 1)$  lies on line  $\ell_2$   
 88 :  $P_{2108} = (26, 0, 1, 1)$  lies on line  $\ell_2$   
 89 :  $P_{2109} = (27, 0, 1, 1)$  lies on line  $\ell_2$   
 90 :  $P_{2110} = (28, 0, 1, 1)$  lies on line  $\ell_2$   
 91 :  $P_{2111} = (29, 0, 1, 1)$  lies on line  $\ell_2$   
 92 :  $P_{2112} = (30, 0, 1, 1)$  lies on line  $\ell_2$   
 93 :  $P_{2113} = (31, 0, 1, 1)$  lies on line  $\ell_2$   
 94 :  $P_{3202} = (1, 3, 2, 1)$  lies on line  $\ell_3$   
 95 :  $P_{4194} = (1, 2, 3, 1)$  lies on line  $\ell_3$   
 96 :  $P_{5314} = (1, 5, 4, 1)$  lies on line  $\ell_3$   
 97 :  $P_{6306} = (1, 4, 5, 1)$  lies on line  $\ell_3$   
 98 :  $P_{7426} = (1, 7, 6, 1)$  lies on line  $\ell_3$   
 99 :  $P_{8418} = (1, 6, 7, 1)$  lies on line  $\ell_3$   
 100 :  $P_{9538} = (1, 9, 8, 1)$  lies on line  $\ell_3$   
 101 :  $P_{10530} = (1, 8, 9, 1)$  lies on line  $\ell_3$   
 102 :  $P_{11650} = (1, 11, 10, 1)$  lies on line  $\ell_3$   
 103 :  $P_{12642} = (1, 10, 11, 1)$  lies on line  $\ell_3$   
 104 :  $P_{13762} = (1, 13, 12, 1)$  lies on line  $\ell_3$   
 105 :  $P_{14754} = (1, 12, 13, 1)$  lies on line  $\ell_3$   
 106 :  $P_{15874} = (1, 15, 14, 1)$  lies on line  $\ell_3$   
 107 :  $P_{16866} = (1, 14, 15, 1)$  lies on line  $\ell_3$   
 108 :  $P_{17986} = (1, 17, 16, 1)$  lies on line  $\ell_3$   
 109 :  $P_{18978} = (1, 16, 17, 1)$  lies on line  $\ell_3$   
 110 :  $P_{20098} = (1, 19, 18, 1)$  lies on line  $\ell_3$   
 111 :  $P_{21090} = (1, 18, 19, 1)$  lies on line  $\ell_3$   
 112 :  $P_{22210} = (1, 21, 20, 1)$  lies on line  $\ell_3$   
 113 :  $P_{23202} = (1, 20, 21, 1)$  lies on line  $\ell_3$   
 114 :  $P_{24322} = (1, 23, 22, 1)$  lies on line  $\ell_3$   
 115 :  $P_{25314} = (1, 22, 23, 1)$  lies on line  $\ell_3$   
 116 :  $P_{26434} = (1, 25, 24, 1)$  lies on line  $\ell_3$   
 117 :  $P_{27426} = (1, 24, 25, 1)$  lies on line  $\ell_3$   
 118 :  $P_{28546} = (1, 27, 26, 1)$  lies on line  $\ell_3$   
 119 :  $P_{29538} = (1, 26, 27, 1)$  lies on line  $\ell_3$   
 120 :  $P_{30658} = (1, 29, 28, 1)$  lies on line  $\ell_3$   
 121 :  $P_{31650} = (1, 28, 29, 1)$  lies on line  $\ell_3$   
 122 :  $P_{32770} = (1, 31, 30, 1)$  lies on line  $\ell_3$   
 123 :  $P_{33762} = (1, 30, 31, 1)$  lies on line  $\ell_3$

The single points on the surface are:

### Points on surface but on no line

The surface has 961 points not on any line:

The points on the surface but not on lines are:

0 :  $P_{129} = (30, 2, 1, 0)$   
 1 :  $P_{148} = (17, 3, 1, 0)$   
 2 :  $P_{182} = (19, 4, 1, 0)$

3 :  $P_{207} = (12, 5, 1, 0)$   
 4 :  $P_{237} = (10, 6, 1, 0)$   
 5 :  $P_{268} = (9, 7, 1, 0)$

6 : $P_{303} = (12, 8, 1, 0)$	60 : $P_{2067} = (17, 31, 0, 1)$
7 : $P_{354} = (31, 9, 1, 0)$	61 : $P_{2155} = (10, 2, 1, 1)$
8 : $P_{381} = (26, 10, 1, 0)$	62 : $P_{2156} = (11, 2, 1, 1)$
9 : $P_{405} = (18, 11, 1, 0)$	63 : $P_{2223} = (14, 4, 1, 1)$
10 : $P_{422} = (3, 12, 1, 0)$	64 : $P_{2224} = (15, 4, 1, 1)$
11 : $P_{461} = (10, 13, 1, 0)$	65 : $P_{2277} = (4, 6, 1, 1)$
12 : $P_{486} = (3, 14, 1, 0)$	66 : $P_{2278} = (5, 6, 1, 1)$
13 : $P_{524} = (9, 15, 1, 0)$	67 : $P_{2397} = (28, 9, 1, 1)$
14 : $P_{555} = (8, 16, 1, 0)$	68 : $P_{2398} = (29, 9, 1, 1)$
15 : $P_{605} = (26, 17, 1, 0)$	69 : $P_{2455} = (22, 11, 1, 1)$
16 : $P_{626} = (15, 18, 1, 0)$	70 : $P_{2456} = (23, 11, 1, 1)$
17 : $P_{660} = (17, 19, 1, 0)$	71 : $P_{2515} = (18, 13, 1, 1)$
18 : $P_{689} = (14, 20, 1, 0)$	72 : $P_{2516} = (19, 13, 1, 1)$
19 : $P_{718} = (11, 21, 1, 0)$	73 : $P_{2585} = (24, 15, 1, 1)$
20 : $P_{758} = (19, 22, 1, 0)$	74 : $P_{2586} = (25, 15, 1, 1)$
21 : $P_{802} = (31, 23, 1, 0)$	75 : $P_{2623} = (30, 16, 1, 1)$
22 : $P_{821} = (18, 24, 1, 0)$	76 : $P_{2624} = (31, 16, 1, 1)$
23 : $P_{843} = (8, 25, 1, 0)$	77 : $P_{2677} = (20, 18, 1, 1)$
24 : $P_{872} = (5, 26, 1, 0)$	78 : $P_{2678} = (21, 18, 1, 1)$
25 : $P_{913} = (14, 27, 1, 0)$	79 : $P_{2737} = (16, 20, 1, 1)$
26 : $P_{946} = (15, 28, 1, 0)$	80 : $P_{2738} = (17, 20, 1, 1)$
27 : $P_{993} = (30, 29, 1, 0)$	81 : $P_{2811} = (26, 22, 1, 1)$
28 : $P_{1000} = (5, 30, 1, 0)$	82 : $P_{2812} = (27, 22, 1, 1)$
29 : $P_{1038} = (11, 31, 1, 0)$	83 : $P_{2883} = (2, 25, 1, 1)$
30 : $P_{1059} = (1, 0, 0, 1)$	84 : $P_{2884} = (3, 25, 1, 1)$
31 : $P_{1146} = (24, 2, 0, 1)$	85 : $P_{2953} = (8, 27, 1, 1)$
32 : $P_{1178} = (24, 3, 0, 1)$	86 : $P_{2954} = (9, 27, 1, 1)$
33 : $P_{1193} = (7, 4, 0, 1)$	87 : $P_{3021} = (12, 29, 1, 1)$
34 : $P_{1225} = (7, 5, 0, 1)$	88 : $P_{3022} = (13, 29, 1, 1)$
35 : $P_{1280} = (30, 6, 0, 1)$	89 : $P_{3079} = (6, 31, 1, 1)$
36 : $P_{1312} = (30, 7, 0, 1)$	90 : $P_{3080} = (7, 31, 1, 1)$
37 : $P_{1340} = (26, 8, 0, 1)$	91 : $P_{3129} = (24, 0, 2, 1)$
38 : $P_{1372} = (26, 9, 0, 1)$	92 : $P_{3147} = (10, 1, 2, 1)$
39 : $P_{1381} = (3, 10, 0, 1)$	93 : $P_{3148} = (11, 1, 2, 1)$
40 : $P_{1413} = (3, 11, 0, 1)$	94 : $P_{3196} = (27, 2, 2, 1)$
41 : $P_{1470} = (28, 12, 0, 1)$	95 : $P_{3200} = (31, 2, 2, 1)$
42 : $P_{1502} = (28, 13, 0, 1)$	96 : $P_{3236} = (3, 4, 2, 1)$
43 : $P_{1511} = (5, 14, 0, 1)$	97 : $P_{3245} = (12, 4, 2, 1)$
44 : $P_{1543} = (5, 15, 0, 1)$	98 : $P_{3282} = (17, 5, 2, 1)$
45 : $P_{1591} = (21, 16, 0, 1)$	99 : $P_{3283} = (18, 5, 2, 1)$
46 : $P_{1623} = (21, 17, 0, 1)$	100 : $P_{3472} = (15, 11, 2, 1)$
47 : $P_{1646} = (12, 18, 0, 1)$	101 : $P_{3479} = (22, 11, 2, 1)$
48 : $P_{1678} = (12, 19, 0, 1)$	102 : $P_{3489} = (0, 12, 2, 1)$
49 : $P_{1717} = (19, 20, 0, 1)$	103 : $P_{3498} = (9, 12, 2, 1)$
50 : $P_{1749} = (19, 21, 0, 1)$	104 : $P_{3555} = (2, 14, 2, 1)$
51 : $P_{1772} = (10, 22, 0, 1)$	105 : $P_{3560} = (7, 14, 2, 1)$
52 : $P_{1804} = (10, 23, 0, 1)$	106 : $P_{3691} = (10, 18, 2, 1)$
53 : $P_{1840} = (14, 24, 0, 1)$	107 : $P_{3699} = (18, 18, 2, 1)$
54 : $P_{1872} = (14, 25, 0, 1)$	108 : $P_{3723} = (10, 19, 2, 1)$
55 : $P_{1913} = (23, 26, 0, 1)$	109 : $P_{3736} = (23, 19, 2, 1)$
56 : $P_{1945} = (23, 27, 0, 1)$	110 : $P_{3778} = (1, 21, 2, 1)$
57 : $P_{1962} = (8, 28, 0, 1)$	111 : $P_{3799} = (22, 21, 2, 1)$
58 : $P_{1994} = (8, 29, 0, 1)$	112 : $P_{3810} = (1, 22, 2, 1)$
59 : $P_{2035} = (17, 30, 0, 1)$	113 : $P_{3830} = (21, 22, 2, 1)$

114 : $P_{3859} = (18, 23, 2, 1)$	168 : $P_{5930} = (9, 24, 4, 1)$
115 : $P_{3871} = (30, 23, 2, 1)$	169 : $P_{5940} = (19, 24, 4, 1)$
116 : $P_{3892} = (19, 24, 2, 1)$	170 : $P_{5954} = (1, 25, 4, 1)$
117 : $P_{3898} = (25, 24, 2, 1)$	171 : $P_{5981} = (28, 25, 4, 1)$
118 : $P_{3986} = (17, 27, 2, 1)$	172 : $P_{5985} = (0, 26, 4, 1)$
119 : $P_{3995} = (26, 27, 2, 1)$	173 : $P_{5996} = (11, 26, 4, 1)$
120 : $P_{4082} = (17, 30, 2, 1)$	174 : $P_{6050} = (1, 28, 4, 1)$
121 : $P_{4087} = (22, 30, 2, 1)$	175 : $P_{6074} = (25, 28, 4, 1)$
122 : $P_{4113} = (16, 31, 2, 1)$	176 : $P_{6117} = (4, 30, 4, 1)$
123 : $P_{4121} = (24, 31, 2, 1)$	177 : $P_{6134} = (21, 30, 4, 1)$
124 : $P_{4153} = (24, 0, 3, 1)$	178 : $P_{6184} = (7, 0, 5, 1)$
125 : $P_{4330} = (9, 6, 3, 1)$	179 : $P_{6258} = (17, 2, 5, 1)$
126 : $P_{4346} = (25, 6, 3, 1)$	180 : $P_{6259} = (18, 2, 5, 1)$
127 : $P_{4356} = (3, 7, 3, 1)$	181 : $P_{6504} = (7, 10, 5, 1)$
128 : $P_{4382} = (29, 7, 3, 1)$	182 : $P_{6518} = (21, 10, 5, 1)$
129 : $P_{4392} = (7, 8, 3, 1)$	183 : $P_{6593} = (0, 13, 5, 1)$
130 : $P_{4409} = (24, 8, 3, 1)$	184 : $P_{6624} = (31, 13, 5, 1)$
131 : $P_{4459} = (10, 10, 3, 1)$	185 : $P_{6634} = (9, 14, 5, 1)$
132 : $P_{4467} = (18, 10, 3, 1)$	186 : $P_{6639} = (14, 14, 5, 1)$
133 : $P_{4494} = (13, 11, 3, 1)$	187 : $P_{6682} = (25, 15, 5, 1)$
134 : $P_{4503} = (22, 11, 3, 1)$	188 : $P_{6684} = (27, 15, 5, 1)$
135 : $P_{4626} = (17, 15, 3, 1)$	189 : $P_{6757} = (4, 18, 5, 1)$
136 : $P_{4630} = (21, 15, 3, 1)$	190 : $P_{6769} = (16, 18, 5, 1)$
137 : $P_{4641} = (0, 16, 3, 1)$	191 : $P_{6823} = (6, 20, 5, 1)$
138 : $P_{4656} = (15, 16, 3, 1)$	192 : $P_{6828} = (11, 20, 5, 1)$
139 : $P_{4815} = (14, 21, 3, 1)$	193 : $P_{6854} = (5, 21, 5, 1)$
140 : $P_{4820} = (19, 21, 3, 1)$	194 : $P_{6871} = (22, 21, 5, 1)$
141 : $P_{4998} = (5, 27, 3, 1)$	195 : $P_{7081} = (8, 28, 5, 1)$
142 : $P_{5024} = (31, 27, 3, 1)$	196 : $P_{7103} = (30, 28, 5, 1)$
143 : $P_{5123} = (2, 31, 3, 1)$	197 : $P_{7181} = (12, 31, 5, 1)$
144 : $P_{5125} = (4, 31, 3, 1)$	198 : $P_{7197} = (28, 31, 5, 1)$
145 : $P_{5160} = (7, 0, 4, 1)$	199 : $P_{7231} = (30, 0, 6, 1)$
146 : $P_{5199} = (14, 1, 4, 1)$	200 : $P_{7237} = (4, 1, 6, 1)$
147 : $P_{5200} = (15, 1, 4, 1)$	201 : $P_{7238} = (5, 1, 6, 1)$
148 : $P_{5220} = (3, 2, 4, 1)$	202 : $P_{7306} = (9, 3, 6, 1)$
149 : $P_{5229} = (12, 2, 4, 1)$	203 : $P_{7322} = (25, 3, 6, 1)$
150 : $P_{5283} = (2, 4, 4, 1)$	204 : $P_{7460} = (3, 8, 6, 1)$
151 : $P_{5299} = (18, 4, 4, 1)$	205 : $P_{7474} = (17, 8, 6, 1)$
152 : $P_{5383} = (6, 7, 4, 1)$	206 : $P_{7497} = (8, 9, 6, 1)$
153 : $P_{5385} = (8, 7, 4, 1)$	207 : $P_{7502} = (13, 9, 6, 1)$
154 : $P_{5423} = (14, 8, 4, 1)$	208 : $P_{7560} = (7, 11, 6, 1)$
155 : $P_{5433} = (24, 8, 4, 1)$	209 : $P_{7569} = (16, 11, 6, 1)$
156 : $P_{5450} = (9, 9, 4, 1)$	210 : $P_{7660} = (11, 14, 6, 1)$
157 : $P_{5455} = (14, 9, 4, 1)$	211 : $P_{7664} = (15, 14, 6, 1)$
158 : $P_{5658} = (25, 15, 4, 1)$	212 : $P_{7714} = (1, 16, 6, 1)$
159 : $P_{5664} = (31, 15, 4, 1)$	213 : $P_{7736} = (23, 16, 6, 1)$
160 : $P_{5670} = (5, 16, 4, 1)$	214 : $P_{7777} = (0, 18, 6, 1)$
161 : $P_{5691} = (26, 16, 4, 1)$	215 : $P_{7788} = (11, 18, 6, 1)$
162 : $P_{5706} = (9, 17, 4, 1)$	216 : $P_{7845} = (4, 20, 6, 1)$
163 : $P_{5709} = (12, 17, 4, 1)$	217 : $P_{7871} = (30, 20, 6, 1)$
164 : $P_{5736} = (7, 18, 4, 1)$	218 : $P_{7876} = (3, 21, 6, 1)$
165 : $P_{5742} = (13, 18, 4, 1)$	219 : $P_{7877} = (4, 21, 6, 1)$
166 : $P_{5773} = (12, 19, 4, 1)$	220 : $P_{7911} = (6, 22, 6, 1)$
167 : $P_{5786} = (25, 19, 4, 1)$	221 : $P_{7917} = (12, 22, 6, 1)$

222 : $P_{7938} = (1, 23, 6, 1)$	276 : $P_{9678} = (13, 13, 8, 1)$
223 : $P_{7953} = (16, 23, 6, 1)$	277 : $P_{9688} = (23, 13, 8, 1)$
224 : $P_{7979} = (10, 24, 6, 1)$	278 : $P_{9767} = (6, 16, 8, 1)$
225 : $P_{7988} = (19, 24, 6, 1)$	279 : $P_{9787} = (26, 16, 8, 1)$
226 : $P_{8003} = (2, 25, 6, 1)$	280 : $P_{9962} = (9, 22, 8, 1)$
227 : $P_{8015} = (14, 25, 6, 1)$	281 : $P_{9971} = (18, 22, 8, 1)$
228 : $P_{8108} = (11, 28, 6, 1)$	282 : $P_{9985} = (0, 23, 8, 1)$
229 : $P_{8113} = (16, 28, 6, 1)$	283 : $P_{9990} = (5, 23, 8, 1)$
230 : $P_{8132} = (3, 29, 6, 1)$	284 : $P_{10089} = (8, 26, 8, 1)$
231 : $P_{8158} = (29, 29, 6, 1)$	285 : $P_{10112} = (31, 26, 8, 1)$
232 : $P_{8255} = (30, 0, 7, 1)$	286 : $P_{10299} = (26, 0, 9, 1)$
233 : $P_{8324} = (3, 3, 7, 1)$	287 : $P_{10333} = (28, 1, 9, 1)$
234 : $P_{8350} = (29, 3, 7, 1)$	288 : $P_{10334} = (29, 1, 9, 1)$
235 : $P_{8359} = (6, 4, 7, 1)$	289 : $P_{10410} = (9, 4, 9, 1)$
236 : $P_{8361} = (8, 4, 7, 1)$	290 : $P_{10415} = (14, 4, 9, 1)$
237 : $P_{8505} = (24, 8, 7, 1)$	291 : $P_{10473} = (8, 6, 9, 1)$
238 : $P_{8509} = (28, 8, 7, 1)$	292 : $P_{10478} = (13, 6, 9, 1)$
239 : $P_{8673} = (0, 14, 7, 1)$	293 : $P_{10568} = (7, 9, 9, 1)$
240 : $P_{8685} = (12, 14, 7, 1)$	294 : $P_{10573} = (12, 9, 9, 1)$
241 : $P_{8707} = (2, 15, 7, 1)$	295 : $P_{10629} = (4, 11, 9, 1)$
242 : $P_{8712} = (7, 15, 7, 1)$	296 : $P_{10641} = (16, 11, 9, 1)$
243 : $P_{8745} = (8, 16, 7, 1)$	297 : $P_{10660} = (3, 12, 9, 1)$
244 : $P_{8748} = (11, 16, 7, 1)$	298 : $P_{10681} = (24, 12, 9, 1)$
245 : $P_{8824} = (23, 18, 7, 1)$	299 : $P_{10806} = (21, 16, 9, 1)$
246 : $P_{8832} = (31, 18, 7, 1)$	300 : $P_{10812} = (27, 16, 9, 1)$
247 : $P_{8873} = (8, 20, 7, 1)$	301 : $P_{10830} = (13, 17, 9, 1)$
248 : $P_{8879} = (14, 20, 7, 1)$	302 : $P_{10833} = (16, 17, 9, 1)$
249 : $P_{8910} = (13, 21, 7, 1)$	303 : $P_{10851} = (2, 18, 9, 1)$
250 : $P_{8919} = (22, 21, 7, 1)$	304 : $P_{10853} = (4, 18, 9, 1)$
251 : $P_{8931} = (2, 22, 7, 1)$	305 : $P_{10913} = (0, 20, 9, 1)$
252 : $P_{8947} = (18, 22, 7, 1)$	306 : $P_{10928} = (15, 20, 9, 1)$
253 : $P_{9009} = (16, 24, 7, 1)$	307 : $P_{10963} = (18, 21, 9, 1)$
254 : $P_{9022} = (29, 24, 7, 1)$	308 : $P_{10969} = (24, 21, 9, 1)$
255 : $P_{9027} = (2, 25, 7, 1)$	309 : $P_{11022} = (13, 23, 9, 1)$
256 : $P_{9051} = (26, 25, 7, 1)$	310 : $P_{11032} = (23, 23, 9, 1)$
257 : $P_{9067} = (10, 26, 7, 1)$	311 : $P_{11077} = (4, 25, 9, 1)$
258 : $P_{9087} = (30, 26, 7, 1)$	312 : $P_{11097} = (24, 25, 9, 1)$
259 : $P_{9090} = (1, 27, 7, 1)$	313 : $P_{11121} = (16, 26, 9, 1)$
260 : $P_{9118} = (29, 27, 7, 1)$	314 : $P_{11134} = (29, 26, 9, 1)$
261 : $P_{9154} = (1, 29, 7, 1)$	315 : $P_{11148} = (11, 27, 9, 1)$
262 : $P_{9180} = (27, 29, 7, 1)$	316 : $P_{11166} = (29, 27, 9, 1)$
263 : $P_{9234} = (17, 31, 7, 1)$	317 : $P_{11179} = (10, 28, 9, 1)$
264 : $P_{9236} = (19, 31, 7, 1)$	318 : $P_{11195} = (26, 28, 9, 1)$
265 : $P_{9275} = (26, 0, 8, 1)$	319 : $P_{11300} = (3, 0, 10, 1)$
266 : $P_{9352} = (7, 3, 8, 1)$	320 : $P_{11403} = (10, 3, 10, 1)$
267 : $P_{9369} = (24, 3, 8, 1)$	321 : $P_{11411} = (18, 3, 10, 1)$
268 : $P_{9391} = (14, 4, 8, 1)$	322 : $P_{11464} = (7, 5, 10, 1)$
269 : $P_{9401} = (24, 4, 8, 1)$	323 : $P_{11478} = (21, 5, 10, 1)$
270 : $P_{9444} = (3, 6, 8, 1)$	324 : $P_{11636} = (19, 10, 10, 1)$
271 : $P_{9458} = (17, 6, 8, 1)$	325 : $P_{11646} = (29, 10, 10, 1)$
272 : $P_{9497} = (24, 7, 8, 1)$	326 : $P_{11716} = (3, 13, 10, 1)$
273 : $P_{9501} = (28, 7, 8, 1)$	327 : $P_{11733} = (20, 13, 10, 1)$
274 : $P_{9525} = (20, 8, 8, 1)$	328 : $P_{11816} = (7, 16, 10, 1)$
275 : $P_{9535} = (30, 8, 8, 1)$	329 : $P_{11839} = (30, 16, 10, 1)$

330 :  $P_{11942} = (5, 20, 10, 1)$   
 331 :  $P_{11949} = (12, 20, 10, 1)$   
 332 :  $P_{11976} = (7, 21, 10, 1)$   
 333 :  $P_{11992} = (23, 21, 10, 1)$   
 334 :  $P_{12065} = (0, 24, 10, 1)$   
 335 :  $P_{12082} = (17, 24, 10, 1)$   
 336 :  $P_{12106} = (9, 25, 10, 1)$   
 337 :  $P_{12108} = (11, 25, 10, 1)$   
 338 :  $P_{12185} = (24, 27, 10, 1)$   
 339 :  $P_{12188} = (27, 27, 10, 1)$   
 340 :  $P_{12324} = (3, 0, 11, 1)$   
 341 :  $P_{12375} = (22, 1, 11, 1)$   
 342 :  $P_{12376} = (23, 1, 11, 1)$   
 343 :  $P_{12400} = (15, 2, 11, 1)$   
 344 :  $P_{12407} = (22, 2, 11, 1)$   
 345 :  $P_{12430} = (13, 3, 11, 1)$   
 346 :  $P_{12439} = (22, 3, 11, 1)$   
 347 :  $P_{12520} = (7, 6, 11, 1)$   
 348 :  $P_{12529} = (16, 6, 11, 1)$   
 349 :  $P_{12613} = (4, 9, 11, 1)$   
 350 :  $P_{12625} = (16, 9, 11, 1)$   
 351 :  $P_{12694} = (21, 11, 11, 1)$   
 352 :  $P_{12699} = (26, 11, 11, 1)$   
 353 :  $P_{12718} = (13, 12, 11, 1)$   
 354 :  $P_{12732} = (27, 12, 11, 1)$   
 355 :  $P_{12739} = (2, 13, 11, 1)$   
 356 :  $P_{12765} = (28, 13, 11, 1)$   
 357 :  $P_{12814} = (13, 15, 11, 1)$   
 358 :  $P_{12817} = (16, 15, 11, 1)$   
 359 :  $P_{12844} = (11, 16, 11, 1)$   
 360 :  $P_{12863} = (30, 16, 11, 1)$   
 361 :  $P_{12971} = (10, 20, 11, 1)$   
 362 :  $P_{12988} = (27, 20, 11, 1)$   
 363 :  $P_{13060} = (3, 23, 11, 1)$   
 364 :  $P_{13071} = (14, 23, 11, 1)$   
 365 :  $P_{13113} = (24, 24, 11, 1)$   
 366 :  $P_{13116} = (27, 24, 11, 1)$   
 367 :  $P_{13158} = (5, 26, 11, 1)$   
 368 :  $P_{13160} = (7, 26, 11, 1)$   
 369 :  $P_{13224} = (7, 28, 11, 1)$   
 370 :  $P_{13226} = (9, 28, 11, 1)$   
 371 :  $P_{13249} = (0, 29, 11, 1)$   
 372 :  $P_{13280} = (31, 29, 11, 1)$   
 373 :  $P_{13373} = (28, 0, 12, 1)$   
 374 :  $P_{13409} = (0, 2, 12, 1)$   
 375 :  $P_{13418} = (9, 2, 12, 1)$   
 376 :  $P_{13636} = (3, 9, 12, 1)$   
 377 :  $P_{13657} = (24, 9, 12, 1)$   
 378 :  $P_{13710} = (13, 11, 12, 1)$   
 379 :  $P_{13724} = (27, 11, 12, 1)$   
 380 :  $P_{13868} = (11, 16, 12, 1)$   
 381 :  $P_{13883} = (26, 16, 12, 1)$   
 382 :  $P_{13925} = (4, 18, 12, 1)$   
 383 :  $P_{13941} = (20, 18, 12, 1)$

384 :  $P_{13968} = (15, 19, 12, 1)$   
 385 :  $P_{13972} = (19, 19, 12, 1)$   
 386 :  $P_{14078} = (29, 22, 12, 1)$   
 387 :  $P_{14080} = (31, 22, 12, 1)$   
 388 :  $P_{14087} = (6, 23, 12, 1)$   
 389 :  $P_{14093} = (12, 23, 12, 1)$   
 390 :  $P_{14121} = (8, 24, 12, 1)$   
 391 :  $P_{14127} = (14, 24, 12, 1)$   
 392 :  $P_{14328} = (23, 30, 12, 1)$   
 393 :  $P_{14333} = (28, 30, 12, 1)$   
 394 :  $P_{14397} = (28, 0, 13, 1)$   
 395 :  $P_{14419} = (18, 1, 13, 1)$   
 396 :  $P_{14420} = (19, 1, 13, 1)$   
 397 :  $P_{14529} = (0, 5, 13, 1)$   
 398 :  $P_{14560} = (31, 5, 13, 1)$   
 399 :  $P_{14638} = (13, 8, 13, 1)$   
 400 :  $P_{14648} = (23, 8, 13, 1)$   
 401 :  $P_{14692} = (3, 10, 13, 1)$   
 402 :  $P_{14709} = (20, 10, 13, 1)$   
 403 :  $P_{14723} = (2, 11, 13, 1)$   
 404 :  $P_{14749} = (28, 11, 13, 1)$   
 405 :  $P_{14796} = (11, 13, 13, 1)$   
 406 :  $P_{14801} = (16, 13, 13, 1)$   
 407 :  $P_{14836} = (19, 14, 13, 1)$   
 408 :  $P_{14838} = (21, 14, 13, 1)$   
 409 :  $P_{14864} = (15, 15, 13, 1)$   
 410 :  $P_{14868} = (19, 15, 13, 1)$   
 411 :  $P_{14884} = (3, 16, 13, 1)$   
 412 :  $P_{14898} = (17, 16, 13, 1)$   
 413 :  $P_{14954} = (9, 18, 13, 1)$   
 414 :  $P_{14965} = (20, 18, 13, 1)$   
 415 :  $P_{15010} = (1, 20, 13, 1)$   
 416 :  $P_{15033} = (24, 20, 13, 1)$   
 417 :  $P_{15051} = (10, 21, 13, 1)$   
 418 :  $P_{15056} = (15, 21, 13, 1)$   
 419 :  $P_{15138} = (1, 24, 13, 1)$   
 420 :  $P_{15157} = (20, 24, 13, 1)$   
 421 :  $P_{15204} = (3, 26, 13, 1)$   
 422 :  $P_{15216} = (15, 26, 13, 1)$   
 423 :  $P_{15238} = (5, 27, 13, 1)$   
 424 :  $P_{15245} = (12, 27, 13, 1)$   
 425 :  $P_{15279} = (14, 28, 13, 1)$   
 426 :  $P_{15294} = (29, 28, 13, 1)$   
 427 :  $P_{15398} = (5, 0, 14, 1)$   
 428 :  $P_{15459} = (2, 2, 14, 1)$   
 429 :  $P_{15464} = (7, 2, 14, 1)$   
 430 :  $P_{15562} = (9, 5, 14, 1)$   
 431 :  $P_{15567} = (14, 5, 14, 1)$   
 432 :  $P_{15596} = (11, 6, 14, 1)$   
 433 :  $P_{15600} = (15, 6, 14, 1)$   
 434 :  $P_{15617} = (0, 7, 14, 1)$   
 435 :  $P_{15629} = (12, 7, 14, 1)$   
 436 :  $P_{15828} = (19, 13, 14, 1)$   
 437 :  $P_{15830} = (21, 13, 14, 1)$

438 :  $P_{15849} = (8, 14, 14, 1)$   
 439 :  $P_{15863} = (22, 14, 14, 1)$   
 440 :  $P_{15958} = (21, 17, 14, 1)$   
 441 :  $P_{15965} = (28, 17, 14, 1)$   
 442 :  $P_{16262} = (5, 27, 14, 1)$   
 443 :  $P_{16286} = (29, 27, 14, 1)$   
 444 :  $P_{16310} = (21, 28, 14, 1)$   
 445 :  $P_{16313} = (24, 28, 14, 1)$   
 446 :  $P_{16338} = (17, 29, 14, 1)$   
 447 :  $P_{16347} = (26, 29, 14, 1)$   
 448 :  $P_{16422} = (5, 0, 15, 1)$   
 449 :  $P_{16473} = (24, 1, 15, 1)$   
 450 :  $P_{16474} = (25, 1, 15, 1)$   
 451 :  $P_{16530} = (17, 3, 15, 1)$   
 452 :  $P_{16534} = (21, 3, 15, 1)$   
 453 :  $P_{16570} = (25, 4, 15, 1)$   
 454 :  $P_{16576} = (31, 4, 15, 1)$   
 455 :  $P_{16602} = (25, 5, 15, 1)$   
 456 :  $P_{16604} = (27, 5, 15, 1)$   
 457 :  $P_{16643} = (2, 7, 15, 1)$   
 458 :  $P_{16648} = (7, 7, 15, 1)$   
 459 :  $P_{16782} = (13, 11, 15, 1)$   
 460 :  $P_{16785} = (16, 11, 15, 1)$   
 461 :  $P_{16848} = (15, 13, 15, 1)$   
 462 :  $P_{16852} = (19, 13, 15, 1)$   
 463 :  $P_{16900} = (3, 15, 15, 1)$   
 464 :  $P_{16925} = (28, 15, 15, 1)$   
 465 :  $P_{17070} = (13, 20, 15, 1)$   
 466 :  $P_{17078} = (21, 20, 15, 1)$   
 467 :  $P_{17121} = (0, 22, 15, 1)$   
 468 :  $P_{17139} = (18, 22, 15, 1)$   
 469 :  $P_{17164} = (11, 23, 15, 1)$   
 470 :  $P_{17174} = (21, 23, 15, 1)$   
 471 :  $P_{17190} = (5, 24, 15, 1)$   
 472 :  $P_{17215} = (30, 24, 15, 1)$   
 473 :  $P_{17251} = (2, 26, 15, 1)$   
 474 :  $P_{17276} = (27, 26, 15, 1)$   
 475 :  $P_{17285} = (4, 27, 15, 1)$   
 476 :  $P_{17304} = (23, 27, 15, 1)$   
 477 :  $P_{17347} = (2, 29, 15, 1)$   
 478 :  $P_{17359} = (14, 29, 15, 1)$   
 479 :  $P_{17422} = (13, 31, 15, 1)$   
 480 :  $P_{17436} = (27, 31, 15, 1)$   
 481 :  $P_{17462} = (21, 0, 16, 1)$   
 482 :  $P_{17503} = (30, 1, 16, 1)$   
 483 :  $P_{17504} = (31, 1, 16, 1)$   
 484 :  $P_{17537} = (0, 3, 16, 1)$   
 485 :  $P_{17552} = (15, 3, 16, 1)$   
 486 :  $P_{17574} = (5, 4, 16, 1)$   
 487 :  $P_{17595} = (26, 4, 16, 1)$   
 488 :  $P_{17634} = (1, 6, 16, 1)$   
 489 :  $P_{17656} = (23, 6, 16, 1)$   
 490 :  $P_{17673} = (8, 7, 16, 1)$   
 491 :  $P_{17676} = (11, 7, 16, 1)$

492 :  $P_{17703} = (6, 8, 16, 1)$   
 493 :  $P_{17723} = (26, 8, 16, 1)$   
 494 :  $P_{17750} = (21, 9, 16, 1)$   
 495 :  $P_{17756} = (27, 9, 16, 1)$   
 496 :  $P_{17768} = (7, 10, 16, 1)$   
 497 :  $P_{17791} = (30, 10, 16, 1)$   
 498 :  $P_{17804} = (11, 11, 16, 1)$   
 499 :  $P_{17823} = (30, 11, 16, 1)$   
 500 :  $P_{17836} = (11, 12, 16, 1)$   
 501 :  $P_{17851} = (26, 12, 16, 1)$   
 502 :  $P_{17860} = (3, 13, 16, 1)$   
 503 :  $P_{17874} = (17, 13, 16, 1)$   
 504 :  $P_{17957} = (4, 16, 16, 1)$   
 505 :  $P_{17962} = (9, 16, 16, 1)$   
 506 :  $P_{18065} = (16, 19, 16, 1)$   
 507 :  $P_{18077} = (28, 19, 16, 1)$   
 508 :  $P_{18123} = (10, 21, 16, 1)$   
 509 :  $P_{18133} = (20, 21, 16, 1)$   
 510 :  $P_{18178} = (1, 23, 16, 1)$   
 511 :  $P_{18183} = (6, 23, 16, 1)$   
 512 :  $P_{18439} = (6, 31, 16, 1)$   
 513 :  $P_{18451} = (18, 31, 16, 1)$   
 514 :  $P_{18486} = (21, 0, 17, 1)$   
 515 :  $P_{18602} = (9, 4, 17, 1)$   
 516 :  $P_{18605} = (12, 4, 17, 1)$   
 517 :  $P_{18766} = (13, 9, 17, 1)$   
 518 :  $P_{18769} = (16, 9, 17, 1)$   
 519 :  $P_{18934} = (21, 14, 17, 1)$   
 520 :  $P_{18941} = (28, 14, 17, 1)$   
 521 :  $P_{19064} = (23, 18, 17, 1)$   
 522 :  $P_{19067} = (26, 18, 17, 1)$   
 523 :  $P_{19211} = (10, 23, 17, 1)$   
 524 :  $P_{19220} = (19, 23, 17, 1)$   
 525 :  $P_{19329} = (0, 27, 17, 1)$   
 526 :  $P_{19347} = (18, 27, 17, 1)$   
 527 :  $P_{19378} = (17, 28, 17, 1)$   
 528 :  $P_{19386} = (25, 28, 17, 1)$   
 529 :  $P_{19408} = (15, 29, 17, 1)$   
 530 :  $P_{19413} = (20, 29, 17, 1)$   
 531 :  $P_{19436} = (11, 30, 17, 1)$   
 532 :  $P_{19455} = (30, 30, 17, 1)$   
 533 :  $P_{19459} = (2, 31, 17, 1)$   
 534 :  $P_{19463} = (6, 31, 17, 1)$   
 535 :  $P_{19501} = (12, 0, 18, 1)$   
 536 :  $P_{19541} = (20, 1, 18, 1)$   
 537 :  $P_{19542} = (21, 1, 18, 1)$   
 538 :  $P_{19563} = (10, 2, 18, 1)$   
 539 :  $P_{19571} = (18, 2, 18, 1)$   
 540 :  $P_{19624} = (7, 4, 18, 1)$   
 541 :  $P_{19630} = (13, 4, 18, 1)$   
 542 :  $P_{19653} = (4, 5, 18, 1)$   
 543 :  $P_{19665} = (16, 5, 18, 1)$   
 544 :  $P_{19681} = (0, 6, 18, 1)$   
 545 :  $P_{19692} = (11, 6, 18, 1)$



546 :  $P_{19736} = (23, 7, 18, 1)$   
 547 :  $P_{19744} = (31, 7, 18, 1)$   
 548 :  $P_{19779} = (2, 9, 18, 1)$   
 549 :  $P_{19781} = (4, 9, 18, 1)$   
 550 :  $P_{19877} = (4, 12, 18, 1)$   
 551 :  $P_{19893} = (20, 12, 18, 1)$   
 552 :  $P_{19914} = (9, 13, 18, 1)$   
 553 :  $P_{19925} = (20, 13, 18, 1)$   
 554 :  $P_{20056} = (23, 17, 18, 1)$   
 555 :  $P_{20059} = (26, 17, 18, 1)$   
 556 :  $P_{20082} = (17, 18, 18, 1)$   
 557 :  $P_{20089} = (24, 18, 18, 1)$   
 558 :  $P_{20169} = (8, 21, 18, 1)$   
 559 :  $P_{20173} = (12, 21, 18, 1)$   
 560 :  $P_{20195} = (2, 22, 18, 1)$   
 561 :  $P_{20216} = (23, 22, 18, 1)$   
 562 :  $P_{20305} = (16, 25, 18, 1)$   
 563 :  $P_{20308} = (19, 25, 18, 1)$   
 564 :  $P_{20401} = (16, 28, 18, 1)$   
 565 :  $P_{20413} = (28, 28, 18, 1)$   
 566 :  $P_{20483} = (2, 31, 18, 1)$   
 567 :  $P_{20508} = (27, 31, 18, 1)$   
 568 :  $P_{20525} = (12, 0, 19, 1)$   
 569 :  $P_{20587} = (10, 2, 19, 1)$   
 570 :  $P_{20600} = (23, 2, 19, 1)$   
 571 :  $P_{20653} = (12, 4, 19, 1)$   
 572 :  $P_{20666} = (25, 4, 19, 1)$   
 573 :  $P_{20912} = (15, 12, 19, 1)$   
 574 :  $P_{20916} = (19, 12, 19, 1)$   
 575 :  $P_{21041} = (16, 16, 19, 1)$   
 576 :  $P_{21053} = (28, 16, 19, 1)$   
 577 :  $P_{21127} = (6, 19, 19, 1)$   
 578 :  $P_{21135} = (14, 19, 19, 1)$   
 579 :  $P_{21302} = (21, 24, 19, 1)$   
 580 :  $P_{21304} = (23, 24, 19, 1)$   
 581 :  $P_{21318} = (5, 25, 19, 1)$   
 582 :  $P_{21339} = (26, 25, 19, 1)$   
 583 :  $P_{21368} = (23, 26, 19, 1)$   
 584 :  $P_{21369} = (24, 26, 19, 1)$   
 585 :  $P_{21409} = (0, 28, 19, 1)$   
 586 :  $P_{21412} = (3, 28, 19, 1)$   
 587 :  $P_{21459} = (18, 29, 19, 1)$   
 588 :  $P_{21472} = (31, 29, 19, 1)$   
 589 :  $P_{21556} = (19, 0, 20, 1)$   
 590 :  $P_{21585} = (16, 1, 20, 1)$   
 591 :  $P_{21586} = (17, 1, 20, 1)$   
 592 :  $P_{21703} = (6, 5, 20, 1)$   
 593 :  $P_{21708} = (11, 5, 20, 1)$   
 594 :  $P_{21733} = (4, 6, 20, 1)$   
 595 :  $P_{21759} = (30, 6, 20, 1)$   
 596 :  $P_{21769} = (8, 7, 20, 1)$   
 597 :  $P_{21775} = (14, 7, 20, 1)$   
 598 :  $P_{21825} = (0, 9, 20, 1)$   
 599 :  $P_{21840} = (15, 9, 20, 1)$

600 :  $P_{21862} = (5, 10, 20, 1)$   
 601 :  $P_{21869} = (12, 10, 20, 1)$   
 602 :  $P_{21899} = (10, 11, 20, 1)$   
 603 :  $P_{21916} = (27, 11, 20, 1)$   
 604 :  $P_{21954} = (1, 13, 20, 1)$   
 605 :  $P_{21977} = (24, 13, 20, 1)$   
 606 :  $P_{22030} = (13, 15, 20, 1)$   
 607 :  $P_{22038} = (21, 15, 20, 1)$   
 608 :  $P_{22246} = (5, 22, 20, 1)$   
 609 :  $P_{22263} = (22, 22, 20, 1)$   
 610 :  $P_{22286} = (13, 23, 20, 1)$   
 611 :  $P_{22288} = (15, 23, 20, 1)$   
 612 :  $P_{22306} = (1, 24, 20, 1)$   
 613 :  $P_{22318} = (13, 24, 20, 1)$   
 614 :  $P_{22357} = (20, 25, 20, 1)$   
 615 :  $P_{22363} = (26, 25, 20, 1)$   
 616 :  $P_{22438} = (5, 28, 20, 1)$   
 617 :  $P_{22449} = (16, 28, 20, 1)$   
 618 :  $P_{22481} = (16, 29, 20, 1)$   
 619 :  $P_{22484} = (19, 29, 20, 1)$   
 620 :  $P_{22512} = (15, 30, 20, 1)$   
 621 :  $P_{22528} = (31, 30, 20, 1)$   
 622 :  $P_{22580} = (19, 0, 21, 1)$   
 623 :  $P_{22626} = (1, 2, 21, 1)$   
 624 :  $P_{22647} = (22, 2, 21, 1)$   
 625 :  $P_{22671} = (14, 3, 21, 1)$   
 626 :  $P_{22676} = (19, 3, 21, 1)$   
 627 :  $P_{22726} = (5, 5, 21, 1)$   
 628 :  $P_{22743} = (22, 5, 21, 1)$   
 629 :  $P_{22756} = (3, 6, 21, 1)$   
 630 :  $P_{22757} = (4, 6, 21, 1)$   
 631 :  $P_{22798} = (13, 7, 21, 1)$   
 632 :  $P_{22807} = (22, 7, 21, 1)$   
 633 :  $P_{22867} = (18, 9, 21, 1)$   
 634 :  $P_{22873} = (24, 9, 21, 1)$   
 635 :  $P_{22888} = (7, 10, 21, 1)$   
 636 :  $P_{22904} = (23, 10, 21, 1)$   
 637 :  $P_{22987} = (10, 13, 21, 1)$   
 638 :  $P_{22992} = (15, 13, 21, 1)$   
 639 :  $P_{23083} = (10, 16, 21, 1)$   
 640 :  $P_{23093} = (20, 16, 21, 1)$   
 641 :  $P_{23145} = (8, 18, 21, 1)$   
 642 :  $P_{23149} = (12, 18, 21, 1)$   
 643 :  $P_{23266} = (1, 22, 21, 1)$   
 644 :  $P_{23267} = (2, 22, 21, 1)$   
 645 :  $P_{23365} = (4, 25, 21, 1)$   
 646 :  $P_{23370} = (9, 25, 21, 1)$   
 647 :  $P_{23482} = (25, 28, 21, 1)$   
 648 :  $P_{23484} = (27, 28, 21, 1)$   
 649 :  $P_{23499} = (10, 29, 21, 1)$   
 650 :  $P_{23519} = (30, 29, 21, 1)$   
 651 :  $P_{23521} = (0, 30, 21, 1)$   
 652 :  $P_{23547} = (26, 30, 21, 1)$   
 653 :  $P_{23557} = (4, 31, 21, 1)$

654 :  $P_{23574} = (21, 31, 21, 1)$   
 655 :  $P_{23595} = (10, 0, 22, 1)$   
 656 :  $P_{23643} = (26, 1, 22, 1)$   
 657 :  $P_{23644} = (27, 1, 22, 1)$   
 658 :  $P_{23650} = (1, 2, 22, 1)$   
 659 :  $P_{23670} = (21, 2, 22, 1)$   
 660 :  $P_{23783} = (6, 6, 22, 1)$   
 661 :  $P_{23789} = (12, 6, 22, 1)$   
 662 :  $P_{23811} = (2, 7, 22, 1)$   
 663 :  $P_{23827} = (18, 7, 22, 1)$   
 664 :  $P_{23850} = (9, 8, 22, 1)$   
 665 :  $P_{23859} = (18, 8, 22, 1)$   
 666 :  $P_{23998} = (29, 12, 22, 1)$   
 667 :  $P_{24000} = (31, 12, 22, 1)$   
 668 :  $P_{24065} = (0, 15, 22, 1)$   
 669 :  $P_{24083} = (18, 15, 22, 1)$   
 670 :  $P_{24163} = (2, 18, 22, 1)$   
 671 :  $P_{24184} = (23, 18, 22, 1)$   
 672 :  $P_{24230} = (5, 20, 22, 1)$   
 673 :  $P_{24247} = (22, 20, 22, 1)$   
 674 :  $P_{24258} = (1, 21, 22, 1)$   
 675 :  $P_{24259} = (2, 21, 22, 1)$   
 676 :  $P_{24365} = (12, 24, 22, 1)$   
 677 :  $P_{24380} = (27, 24, 22, 1)$   
 678 :  $P_{24395} = (10, 25, 22, 1)$   
 679 :  $P_{24412} = (27, 25, 22, 1)$   
 680 :  $P_{24495} = (14, 28, 22, 1)$   
 681 :  $P_{24500} = (19, 28, 22, 1)$   
 682 :  $P_{24521} = (8, 29, 22, 1)$   
 683 :  $P_{24526} = (13, 29, 22, 1)$   
 684 :  $P_{24548} = (3, 30, 22, 1)$   
 685 :  $P_{24557} = (12, 30, 22, 1)$   
 686 :  $P_{24581} = (4, 31, 22, 1)$   
 687 :  $P_{24607} = (30, 31, 22, 1)$   
 688 :  $P_{24619} = (10, 0, 23, 1)$   
 689 :  $P_{24691} = (18, 2, 23, 1)$   
 690 :  $P_{24703} = (30, 2, 23, 1)$   
 691 :  $P_{24802} = (1, 6, 23, 1)$   
 692 :  $P_{24817} = (16, 6, 23, 1)$   
 693 :  $P_{24865} = (0, 8, 23, 1)$   
 694 :  $P_{24870} = (5, 8, 23, 1)$   
 695 :  $P_{24910} = (13, 9, 23, 1)$   
 696 :  $P_{24920} = (23, 9, 23, 1)$   
 697 :  $P_{24964} = (3, 11, 23, 1)$   
 698 :  $P_{24975} = (14, 11, 23, 1)$   
 699 :  $P_{24999} = (6, 12, 23, 1)$   
 700 :  $P_{25005} = (12, 12, 23, 1)$   
 701 :  $P_{25100} = (11, 15, 23, 1)$   
 702 :  $P_{25110} = (21, 15, 23, 1)$   
 703 :  $P_{25122} = (1, 16, 23, 1)$   
 704 :  $P_{25127} = (6, 16, 23, 1)$   
 705 :  $P_{25163} = (10, 17, 23, 1)$   
 706 :  $P_{25172} = (19, 17, 23, 1)$   
 707 :  $P_{25262} = (13, 20, 23, 1)$

708 :  $P_{25264} = (15, 20, 23, 1)$   
 709 :  $P_{25381} = (4, 24, 23, 1)$   
 710 :  $P_{25397} = (20, 24, 23, 1)$   
 711 :  $P_{25417} = (8, 25, 23, 1)$   
 712 :  $P_{25439} = (30, 25, 23, 1)$   
 713 :  $P_{25495} = (22, 27, 23, 1)$   
 714 :  $P_{25503} = (30, 27, 23, 1)$   
 715 :  $P_{25507} = (2, 28, 23, 1)$   
 716 :  $P_{25511} = (6, 28, 23, 1)$   
 717 :  $P_{25550} = (13, 29, 23, 1)$   
 718 :  $P_{25554} = (17, 29, 23, 1)$   
 719 :  $P_{25576} = (7, 30, 23, 1)$   
 720 :  $P_{25597} = (28, 30, 23, 1)$   
 721 :  $P_{25647} = (14, 0, 24, 1)$   
 722 :  $P_{25716} = (19, 2, 24, 1)$   
 723 :  $P_{25722} = (25, 2, 24, 1)$   
 724 :  $P_{25770} = (9, 4, 24, 1)$   
 725 :  $P_{25780} = (19, 4, 24, 1)$   
 726 :  $P_{25835} = (10, 6, 24, 1)$   
 727 :  $P_{25844} = (19, 6, 24, 1)$   
 728 :  $P_{25873} = (16, 7, 24, 1)$   
 729 :  $P_{25886} = (29, 7, 24, 1)$   
 730 :  $P_{25953} = (0, 10, 24, 1)$   
 731 :  $P_{25970} = (17, 10, 24, 1)$   
 732 :  $P_{26009} = (24, 11, 24, 1)$   
 733 :  $P_{26012} = (27, 11, 24, 1)$   
 734 :  $P_{26025} = (8, 12, 24, 1)$   
 735 :  $P_{26031} = (14, 12, 24, 1)$   
 736 :  $P_{26050} = (1, 13, 24, 1)$   
 737 :  $P_{26069} = (20, 13, 24, 1)$   
 738 :  $P_{26118} = (5, 15, 24, 1)$   
 739 :  $P_{26143} = (30, 15, 24, 1)$   
 740 :  $P_{26262} = (21, 19, 24, 1)$   
 741 :  $P_{26264} = (23, 19, 24, 1)$   
 742 :  $P_{26274} = (1, 20, 24, 1)$   
 743 :  $P_{26286} = (13, 20, 24, 1)$   
 744 :  $P_{26349} = (12, 22, 24, 1)$   
 745 :  $P_{26364} = (27, 22, 24, 1)$   
 746 :  $P_{26373} = (4, 23, 24, 1)$   
 747 :  $P_{26389} = (20, 23, 24, 1)$   
 748 :  $P_{26485} = (20, 26, 24, 1)$   
 749 :  $P_{26491} = (26, 26, 24, 1)$   
 750 :  $P_{26588} = (27, 29, 24, 1)$   
 751 :  $P_{26592} = (31, 29, 24, 1)$   
 752 :  $P_{26640} = (15, 31, 24, 1)$   
 753 :  $P_{26653} = (28, 31, 24, 1)$   
 754 :  $P_{26671} = (14, 0, 25, 1)$   
 755 :  $P_{26691} = (2, 1, 25, 1)$   
 756 :  $P_{26692} = (3, 1, 25, 1)$   
 757 :  $P_{26786} = (1, 4, 25, 1)$   
 758 :  $P_{26813} = (28, 4, 25, 1)$   
 759 :  $P_{26851} = (2, 6, 25, 1)$   
 760 :  $P_{26863} = (14, 6, 25, 1)$   
 761 :  $P_{26883} = (2, 7, 25, 1)$

762 :  $P_{26907} = (26, 7, 25, 1)$   
 763 :  $P_{26949} = (4, 9, 25, 1)$   
 764 :  $P_{26969} = (24, 9, 25, 1)$   
 765 :  $P_{26986} = (9, 10, 25, 1)$   
 766 :  $P_{26988} = (11, 10, 25, 1)$   
 767 :  $P_{27249} = (16, 18, 25, 1)$   
 768 :  $P_{27252} = (19, 18, 25, 1)$   
 769 :  $P_{27270} = (5, 19, 25, 1)$   
 770 :  $P_{27291} = (26, 19, 25, 1)$   
 771 :  $P_{27317} = (20, 20, 25, 1)$   
 772 :  $P_{27323} = (26, 20, 25, 1)$   
 773 :  $P_{27333} = (4, 21, 25, 1)$   
 774 :  $P_{27338} = (9, 21, 25, 1)$   
 775 :  $P_{27371} = (10, 22, 25, 1)$   
 776 :  $P_{27388} = (27, 22, 25, 1)$   
 777 :  $P_{27401} = (8, 23, 25, 1)$   
 778 :  $P_{27423} = (30, 23, 25, 1)$   
 779 :  $P_{27507} = (18, 26, 25, 1)$   
 780 :  $P_{27511} = (22, 26, 25, 1)$   
 781 :  $P_{27554} = (1, 28, 25, 1)$   
 782 :  $P_{27557} = (4, 28, 25, 1)$   
 783 :  $P_{27602} = (17, 29, 25, 1)$   
 784 :  $P_{27610} = (25, 29, 25, 1)$   
 785 :  $P_{27649} = (0, 31, 25, 1)$   
 786 :  $P_{27658} = (9, 31, 25, 1)$   
 787 :  $P_{27704} = (23, 0, 26, 1)$   
 788 :  $P_{27809} = (0, 4, 26, 1)$   
 789 :  $P_{27820} = (11, 4, 26, 1)$   
 790 :  $P_{27915} = (10, 7, 26, 1)$   
 791 :  $P_{27935} = (30, 7, 26, 1)$   
 792 :  $P_{27945} = (8, 8, 26, 1)$   
 793 :  $P_{27968} = (31, 8, 26, 1)$   
 794 :  $P_{27985} = (16, 9, 26, 1)$   
 795 :  $P_{27998} = (29, 9, 26, 1)$   
 796 :  $P_{28038} = (5, 11, 26, 1)$   
 797 :  $P_{28040} = (7, 11, 26, 1)$   
 798 :  $P_{28100} = (3, 13, 26, 1)$   
 799 :  $P_{28112} = (15, 13, 26, 1)$   
 800 :  $P_{28163} = (2, 15, 26, 1)$   
 801 :  $P_{28188} = (27, 15, 26, 1)$   
 802 :  $P_{28312} = (23, 19, 26, 1)$   
 803 :  $P_{28313} = (24, 19, 26, 1)$   
 804 :  $P_{28469} = (20, 24, 26, 1)$   
 805 :  $P_{28475} = (26, 24, 26, 1)$   
 806 :  $P_{28499} = (18, 25, 26, 1)$   
 807 :  $P_{28503} = (22, 25, 26, 1)$   
 808 :  $P_{28728} = (23, 0, 27, 1)$   
 809 :  $P_{28745} = (8, 1, 27, 1)$   
 810 :  $P_{28746} = (9, 1, 27, 1)$   
 811 :  $P_{28786} = (17, 2, 27, 1)$   
 812 :  $P_{28795} = (26, 2, 27, 1)$   
 813 :  $P_{28806} = (5, 3, 27, 1)$   
 814 :  $P_{28832} = (31, 3, 27, 1)$   
 815 :  $P_{28930} = (1, 7, 27, 1)$

816 :  $P_{28958} = (29, 7, 27, 1)$   
 817 :  $P_{29004} = (11, 9, 27, 1)$   
 818 :  $P_{29022} = (29, 9, 27, 1)$   
 819 :  $P_{29049} = (24, 10, 27, 1)$   
 820 :  $P_{29052} = (27, 10, 27, 1)$   
 821 :  $P_{29126} = (5, 13, 27, 1)$   
 822 :  $P_{29133} = (12, 13, 27, 1)$   
 823 :  $P_{29158} = (5, 14, 27, 1)$   
 824 :  $P_{29182} = (29, 14, 27, 1)$   
 825 :  $P_{29189} = (4, 15, 27, 1)$   
 826 :  $P_{29208} = (23, 15, 27, 1)$   
 827 :  $P_{29249} = (0, 17, 27, 1)$   
 828 :  $P_{29267} = (18, 17, 27, 1)$   
 829 :  $P_{29463} = (22, 23, 27, 1)$   
 830 :  $P_{29471} = (30, 23, 27, 1)$   
 831 :  $P_{29582} = (13, 27, 27, 1)$   
 832 :  $P_{29584} = (15, 27, 27, 1)$   
 833 :  $P_{29615} = (14, 28, 27, 1)$   
 834 :  $P_{29632} = (31, 28, 27, 1)$   
 835 :  $P_{29634} = (1, 29, 27, 1)$   
 836 :  $P_{29640} = (7, 29, 27, 1)$   
 837 :  $P_{29673} = (8, 30, 27, 1)$   
 838 :  $P_{29693} = (28, 30, 27, 1)$   
 839 :  $P_{29705} = (8, 31, 27, 1)$   
 840 :  $P_{29728} = (31, 31, 27, 1)$   
 841 :  $P_{29737} = (8, 0, 28, 1)$   
 842 :  $P_{29858} = (1, 4, 28, 1)$   
 843 :  $P_{29882} = (25, 4, 28, 1)$   
 844 :  $P_{29897} = (8, 5, 28, 1)$   
 845 :  $P_{29919} = (30, 5, 28, 1)$   
 846 :  $P_{29932} = (11, 6, 28, 1)$   
 847 :  $P_{29937} = (16, 6, 28, 1)$   
 848 :  $P_{30027} = (10, 9, 28, 1)$   
 849 :  $P_{30043} = (26, 9, 28, 1)$   
 850 :  $P_{30088} = (7, 11, 28, 1)$   
 851 :  $P_{30090} = (9, 11, 28, 1)$   
 852 :  $P_{30159} = (14, 13, 28, 1)$   
 853 :  $P_{30174} = (29, 13, 28, 1)$   
 854 :  $P_{30198} = (21, 14, 28, 1)$   
 855 :  $P_{30201} = (24, 14, 28, 1)$   
 856 :  $P_{30290} = (17, 17, 28, 1)$   
 857 :  $P_{30298} = (25, 17, 28, 1)$   
 858 :  $P_{30321} = (16, 18, 28, 1)$   
 859 :  $P_{30333} = (28, 18, 28, 1)$   
 860 :  $P_{30337} = (0, 19, 28, 1)$   
 861 :  $P_{30340} = (3, 19, 28, 1)$   
 862 :  $P_{30374} = (5, 20, 28, 1)$   
 863 :  $P_{30385} = (16, 20, 28, 1)$   
 864 :  $P_{30426} = (25, 21, 28, 1)$   
 865 :  $P_{30428} = (27, 21, 28, 1)$   
 866 :  $P_{30447} = (14, 22, 28, 1)$   
 867 :  $P_{30452} = (19, 22, 28, 1)$   
 868 :  $P_{30467} = (2, 23, 28, 1)$   
 869 :  $P_{30471} = (6, 23, 28, 1)$

870 :  $P_{30530} = (1, 25, 28, 1)$   
 871 :  $P_{30533} = (4, 25, 28, 1)$   
 872 :  $P_{30607} = (14, 27, 28, 1)$   
 873 :  $P_{30624} = (31, 27, 28, 1)$   
 874 :  $P_{30761} = (8, 0, 29, 1)$   
 875 :  $P_{30797} = (12, 1, 29, 1)$   
 876 :  $P_{30798} = (13, 1, 29, 1)$   
 877 :  $P_{30948} = (3, 6, 29, 1)$   
 878 :  $P_{30974} = (29, 6, 29, 1)$   
 879 :  $P_{30978} = (1, 7, 29, 1)$   
 880 :  $P_{31004} = (27, 7, 29, 1)$   
 881 :  $P_{31105} = (0, 11, 29, 1)$   
 882 :  $P_{31136} = (31, 11, 29, 1)$   
 883 :  $P_{31218} = (17, 14, 29, 1)$   
 884 :  $P_{31227} = (26, 14, 29, 1)$   
 885 :  $P_{31235} = (2, 15, 29, 1)$   
 886 :  $P_{31247} = (14, 15, 29, 1)$   
 887 :  $P_{31312} = (15, 17, 29, 1)$   
 888 :  $P_{31317} = (20, 17, 29, 1)$   
 889 :  $P_{31379} = (18, 19, 29, 1)$   
 890 :  $P_{31392} = (31, 19, 29, 1)$   
 891 :  $P_{31409} = (16, 20, 29, 1)$   
 892 :  $P_{31412} = (19, 20, 29, 1)$   
 893 :  $P_{31435} = (10, 21, 29, 1)$   
 894 :  $P_{31455} = (30, 21, 29, 1)$   
 895 :  $P_{31465} = (8, 22, 29, 1)$   
 896 :  $P_{31470} = (13, 22, 29, 1)$   
 897 :  $P_{31502} = (13, 23, 29, 1)$   
 898 :  $P_{31506} = (17, 23, 29, 1)$   
 899 :  $P_{31548} = (27, 24, 29, 1)$   
 900 :  $P_{31552} = (31, 24, 29, 1)$   
 901 :  $P_{31570} = (17, 25, 29, 1)$   
 902 :  $P_{31578} = (25, 25, 29, 1)$   
 903 :  $P_{31618} = (1, 27, 29, 1)$   
 904 :  $P_{31624} = (7, 27, 29, 1)$   
 905 :  $P_{31772} = (27, 31, 29, 1)$   
 906 :  $P_{31773} = (28, 31, 29, 1)$   
 907 :  $P_{31794} = (17, 0, 30, 1)$   
 908 :  $P_{31858} = (17, 2, 30, 1)$   
 909 :  $P_{31863} = (22, 2, 30, 1)$   
 910 :  $P_{31909} = (4, 4, 30, 1)$   
 911 :  $P_{31926} = (21, 4, 30, 1)$   
 912 :  $P_{32184} = (23, 12, 30, 1)$   
 913 :  $P_{32189} = (28, 12, 30, 1)$   
 914 :  $P_{32332} = (11, 17, 30, 1)$   
 915 :  $P_{32351} = (30, 17, 30, 1)$

916 :  $P_{32432} = (15, 20, 30, 1)$   
 917 :  $P_{32448} = (31, 20, 30, 1)$   
 918 :  $P_{32449} = (0, 21, 30, 1)$   
 919 :  $P_{32475} = (26, 21, 30, 1)$   
 920 :  $P_{32484} = (3, 22, 30, 1)$   
 921 :  $P_{32493} = (12, 22, 30, 1)$   
 922 :  $P_{32520} = (7, 23, 30, 1)$   
 923 :  $P_{32541} = (28, 23, 30, 1)$   
 924 :  $P_{32649} = (8, 27, 30, 1)$   
 925 :  $P_{32669} = (28, 27, 30, 1)$   
 926 :  $P_{32747} = (10, 30, 30, 1)$   
 927 :  $P_{32762} = (25, 30, 30, 1)$   
 928 :  $P_{32818} = (17, 0, 31, 1)$   
 929 :  $P_{32839} = (6, 1, 31, 1)$   
 930 :  $P_{32840} = (7, 1, 31, 1)$   
 931 :  $P_{32881} = (16, 2, 31, 1)$   
 932 :  $P_{32889} = (24, 2, 31, 1)$   
 933 :  $P_{32899} = (2, 3, 31, 1)$   
 934 :  $P_{32901} = (4, 3, 31, 1)$   
 935 :  $P_{32973} = (12, 5, 31, 1)$   
 936 :  $P_{32989} = (28, 5, 31, 1)$   
 937 :  $P_{33042} = (17, 7, 31, 1)$   
 938 :  $P_{33044} = (19, 7, 31, 1)$   
 939 :  $P_{33294} = (13, 15, 31, 1)$   
 940 :  $P_{33308} = (27, 15, 31, 1)$   
 941 :  $P_{33319} = (6, 16, 31, 1)$   
 942 :  $P_{33331} = (18, 16, 31, 1)$   
 943 :  $P_{33347} = (2, 17, 31, 1)$   
 944 :  $P_{33351} = (6, 17, 31, 1)$   
 945 :  $P_{33379} = (2, 18, 31, 1)$   
 946 :  $P_{33404} = (27, 18, 31, 1)$   
 947 :  $P_{33477} = (4, 21, 31, 1)$   
 948 :  $P_{33494} = (21, 21, 31, 1)$   
 949 :  $P_{33509} = (4, 22, 31, 1)$   
 950 :  $P_{33535} = (30, 22, 31, 1)$   
 951 :  $P_{33584} = (15, 24, 31, 1)$   
 952 :  $P_{33597} = (28, 24, 31, 1)$   
 953 :  $P_{33601} = (0, 25, 31, 1)$   
 954 :  $P_{33610} = (9, 25, 31, 1)$   
 955 :  $P_{33673} = (8, 27, 31, 1)$   
 956 :  $P_{33696} = (31, 27, 31, 1)$   
 957 :  $P_{33756} = (27, 29, 31, 1)$   
 958 :  $P_{33757} = (28, 29, 31, 1)$   
 959 :  $P_{33798} = (5, 31, 31, 1)$   
 960 :  $P_{33816} = (23, 31, 31, 1)$

## Line Intersection Graph

	0	1	2	3
0	0	0	0	1
1	0	0	1	1
2	0	1	0	1
3	1	1	1	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	$\ell_3$
in point	$P_{67}$

Line 1 intersects

Line	$\ell_2$	$\ell_3$
in point	$P_0$	$P_{1091}$

Line 2 intersects

Line	$\ell_1$	$\ell_3$
in point	$P_0$	$P_{2083}$

Line 3 intersects

Line	$\ell_0$	$\ell_1$	$\ell_2$
in point	$P_{67}$	$P_{1091}$	$P_{2083}$

The surface has 1089 points:

Too many to print.