Rank-76291 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

$$X_1^2X_3 + X_1X_2^2 + X_0X_3^2 + X_0X_1X_2 = 0$$

(0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(32) is 1108378661

General information

Number of lines	8
Number of points	1121
Number of singular points	2
Number of Eckardt points	3
Number of double points	7
Number of single points	241
Number of points off lines	870
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^8
Type of lines on points	3^3, 2^7, 1^{241}, 0^{870}

Singular Points

The surface has 2 singular points:

$0: \ P_0 = \mathbf{P}(1,0,0,0) = \mathbf{P}(1,0,0,0)$
$1: \ P_{36} = \mathbf{P}(1,0,1,0) = \mathbf{P}(1,0,1,0)$

The 8 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_0 = \mathbf{Pl}(1,0,0,0,0,0)_0$$

$$\ell_1 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{1024} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{1024} = \mathbf{Pl}(0,0,1,0,0,0)_2$$

$$\ell_2 = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{1057} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{1057} = \mathbf{Pl}(1,0,0,0,0,1)_{34850}$$

$$\ell_3 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{33} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{33} = \mathbf{Pl}(1,0,1,0,1,0)_{1153}$$

$$\ell_4 = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1083424} = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1083424} = \mathbf{Pl}(0,1,0,0,0,0)_1$$

$$\ell_5 = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{2082} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{2082} = \mathbf{Pl}(0,0,1,1,1,1)_{70562}$$

$$\ell_6 = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1090} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1090} = \mathbf{Pl}(1,1,1,0,1,1)_{68640}$$

$$\ell_7 = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{35906} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{35906} = \mathbf{Pl}(0,1,1,1,1,1)_{70594}$$

Rank of lines: (0, 1024, 1057, 33, 1083424, 2082, 1090, 35906)
Rank of points on Klein quadric: (0, 2, 34850, 1153, 1, 70562, 68640, 70594)

Eckardt Points

The surface has 3 Eckardt points:
$0 : P_0 = \mathbf{P}(1,0,0,0) = \mathbf{P}(1,0,0,0)$,
$1 : P_{36} = \mathbf{P}(1,0,1,0) = \mathbf{P}(1,0,1,0)$,
$2 : P_{2082} = \mathbf{P}(0,0,1,1) = \mathbf{P}(0,0,1,1)$.

Double Points

The surface has 7 Double points:
The double points on the surface are:

$P_1 = (0,1,0,0) = \ell_0 \cap \ell_2$
$P_5 = (1,1,0,0) = \ell_0 \cap \ell_5$
$P_2 = (0,0,1,0) = \ell_1 \cap \ell_4$
$P_{68} = (1,1,1,0) = \ell_2 \cap \ell_7$
$P_4 = (1,1,1,1) = \ell_3 \cap \ell_5$
$P_{2114} = (0,1,1,1) = \ell_3 \cap \ell_6$
$P_{1091} = (1,1,0,1) = \ell_6 \cap \ell_7$

Single Points

The surface has 241 single points:
The single points on the surface are:

$0 : P_3 = (0,0,0,1)$ lies on line ℓ_4
$1 : P_6 = (2,1,0,0)$ lies on line ℓ_0
$2 : P_7 = (3,1,0,0)$ lies on line ℓ_0
$3 : P_8 = (4,1,0,0)$ lies on line ℓ_0
$4 : P_9 = (5,1,0,0)$ lies on line ℓ_0
$5 : P_{10} = (6,1,0,0)$ lies on line ℓ_0
$6 : P_{11} = (7,1,0,0)$ lies on line ℓ_0
$7 : P_{12} = (8,1,0,0)$ lies on line ℓ_0
$8 : P_{13} = (9,1,0,0)$ lies on line ℓ_0
$9 : P_{14} = (10,1,0,0)$ lies on line ℓ_0
$10 : P_{15} = (11,1,0,0)$ lies on line ℓ_0
$11 : P_{16} = (12,1,0,0)$ lies on line ℓ_0
$12 : P_{17} = (13,1,0,0)$ lies on line ℓ_0
$13 : P_{18} = (14,1,0,0)$ lies on line ℓ_0
$14 : P_{19} = (15,1,0,0)$ lies on line ℓ_0
$15 : P_{20} = (16,1,0,0)$ lies on line ℓ_0

16 : $P_{21} = (17, 1, 0, 0)$ lies on line ℓ_0
17 : $P_{22} = (18, 1, 0, 0)$ lies on line ℓ_0
18 : $P_{23} = (19, 1, 0, 0)$ lies on line ℓ_0
19 : $P_{24} = (20, 1, 0, 0)$ lies on line ℓ_0
20 : $P_{25} = (21, 1, 0, 0)$ lies on line ℓ_0
21 : $P_{26} = (22, 1, 0, 0)$ lies on line ℓ_0
22 : $P_{27} = (23, 1, 0, 0)$ lies on line ℓ_0
23 : $P_{28} = (24, 1, 0, 0)$ lies on line ℓ_0
24 : $P_{29} = (25, 1, 0, 0)$ lies on line ℓ_0
25 : $P_{30} = (26, 1, 0, 0)$ lies on line ℓ_0
26 : $P_{31} = (27, 1, 0, 0)$ lies on line ℓ_0
27 : $P_{32} = (28, 1, 0, 0)$ lies on line ℓ_0
28 : $P_{33} = (29, 1, 0, 0)$ lies on line ℓ_0
29 : $P_{34} = (30, 1, 0, 0)$ lies on line ℓ_0
30 : $P_{35} = (31, 1, 0, 0)$ lies on line ℓ_0
31 : $P_{37} = (2, 0, 1, 0)$ lies on line ℓ_1
32 : $P_{38} = (3, 0, 1, 0)$ lies on line ℓ_1
33 : $P_{39} = (4, 0, 1, 0)$ lies on line ℓ_1
34 : $P_{40} = (5, 0, 1, 0)$ lies on line ℓ_1
35 : $P_{41} = (6, 0, 1, 0)$ lies on line ℓ_1
36 : $P_{42} = (7, 0, 1, 0)$ lies on line ℓ_1
37 : $P_{43} = (8, 0, 1, 0)$ lies on line ℓ_1
38 : $P_{44} = (9, 0, 1, 0)$ lies on line ℓ_1
39 : $P_{45} = (10, 0, 1, 0)$ lies on line ℓ_1
40 : $P_{46} = (11, 0, 1, 0)$ lies on line ℓ_1
41 : $P_{47} = (12, 0, 1, 0)$ lies on line ℓ_1
42 : $P_{48} = (13, 0, 1, 0)$ lies on line ℓ_1
43 : $P_{49} = (14, 0, 1, 0)$ lies on line ℓ_1
44 : $P_{50} = (15, 0, 1, 0)$ lies on line ℓ_1
45 : $P_{51} = (16, 0, 1, 0)$ lies on line ℓ_1
46 : $P_{52} = (17, 0, 1, 0)$ lies on line ℓ_1
47 : $P_{53} = (18, 0, 1, 0)$ lies on line ℓ_1
48 : $P_{54} = (19, 0, 1, 0)$ lies on line ℓ_1
49 : $P_{55} = (20, 0, 1, 0)$ lies on line ℓ_1
50 : $P_{56} = (21, 0, 1, 0)$ lies on line ℓ_1
51 : $P_{57} = (22, 0, 1, 0)$ lies on line ℓ_1
52 : $P_{58} = (23, 0, 1, 0)$ lies on line ℓ_1
53 : $P_{59} = (24, 0, 1, 0)$ lies on line ℓ_1
54 : $P_{60} = (25, 0, 1, 0)$ lies on line ℓ_1
55 : $P_{61} = (26, 0, 1, 0)$ lies on line ℓ_1
56 : $P_{62} = (27, 0, 1, 0)$ lies on line ℓ_1
57 : $P_{63} = (28, 0, 1, 0)$ lies on line ℓ_1
58 : $P_{64} = (29, 0, 1, 0)$ lies on line ℓ_1
59 : $P_{65} = (30, 0, 1, 0)$ lies on line ℓ_1
60 : $P_{66} = (31, 0, 1, 0)$ lies on line ℓ_1
61 : $P_{100} = (1, 2, 1, 0)$ lies on line ℓ_2
62 : $P_{132} = (1, 3, 1, 0)$ lies on line ℓ_2
63 : $P_{164} = (1, 4, 1, 0)$ lies on line ℓ_2
64 : $P_{196} = (1, 5, 1, 0)$ lies on line ℓ_2
65 : $P_{228} = (1, 6, 1, 0)$ lies on line ℓ_2
66 : $P_{260} = (1, 7, 1, 0)$ lies on line ℓ_2
67 : $P_{292} = (1, 8, 1, 0)$ lies on line ℓ_2
68 : $P_{324} = (1, 9, 1, 0)$ lies on line ℓ_2
69 : $P_{356} = (1, 10, 1, 0)$ lies on line ℓ_2
70 : $P_{388} = (1, 11, 1, 0)$ lies on line ℓ_2
71 : $P_{420} = (1, 12, 1, 0)$ lies on line ℓ_2
72 : $P_{452} = (1, 13, 1, 0)$ lies on line ℓ_2
73 : $P_{484} = (1, 14, 1, 0)$ lies on line ℓ_2
74 : $P_{516} = (1, 15, 1, 0)$ lies on line ℓ_2
75 : $P_{548} = (1, 16, 1, 0)$ lies on line ℓ_2
76 : $P_{580} = (1, 17, 1, 0)$ lies on line ℓ_2
77 : $P_{612} = (1, 18, 1, 0)$ lies on line ℓ_2
78 : $P_{644} = (1, 19, 1, 0)$ lies on line ℓ_2
79 : $P_{676} = (1, 20, 1, 0)$ lies on line ℓ_2
80 : $P_{708} = (1, 21, 1, 0)$ lies on line ℓ_2
81 : $P_{740} = (1, 22, 1, 0)$ lies on line ℓ_2
82 : $P_{772} = (1, 23, 1, 0)$ lies on line ℓ_2
83 : $P_{804} = (1, 24, 1, 0)$ lies on line ℓ_2
84 : $P_{836} = (1, 25, 1, 0)$ lies on line ℓ_2
85 : $P_{868} = (1, 26, 1, 0)$ lies on line ℓ_2
86 : $P_{900} = (1, 27, 1, 0)$ lies on line ℓ_2
87 : $P_{932} = (1, 28, 1, 0)$ lies on line ℓ_2
88 : $P_{964} = (1, 29, 1, 0)$ lies on line ℓ_2
89 : $P_{996} = (1, 30, 1, 0)$ lies on line ℓ_2
90 : $P_{1028} = (1, 31, 1, 0)$ lies on line ℓ_2
91 : $P_{2115} = (2, 1, 1, 1)$ lies on line ℓ_3
92 : $P_{2116} = (3, 1, 1, 1)$ lies on line ℓ_3
93 : $P_{2117} = (4, 1, 1, 1)$ lies on line ℓ_3
94 : $P_{2118} = (5, 1, 1, 1)$ lies on line ℓ_3
95 : $P_{2119} = (6, 1, 1, 1)$ lies on line ℓ_3
96 : $P_{2120} = (7, 1, 1, 1)$ lies on line ℓ_3
97 : $P_{2121} = (8, 1, 1, 1)$ lies on line ℓ_3
98 : $P_{2122} = (9, 1, 1, 1)$ lies on line ℓ_3
99 : $P_{2123} = (10, 1, 1, 1)$ lies on line ℓ_3
100 : $P_{2124} = (11, 1, 1, 1)$ lies on line ℓ_3
101 : $P_{2125} = (12, 1, 1, 1)$ lies on line ℓ_3
102 : $P_{2126} = (13, 1, 1, 1)$ lies on line ℓ_3
103 : $P_{2127} = (14, 1, 1, 1)$ lies on line ℓ_3
104 : $P_{2128} = (15, 1, 1, 1)$ lies on line ℓ_3
105 : $P_{2129} = (16, 1, 1, 1)$ lies on line ℓ_3
106 : $P_{2130} = (17, 1, 1, 1)$ lies on line ℓ_3
107 : $P_{2131} = (18, 1, 1, 1)$ lies on line ℓ_3
108 : $P_{2132} = (19, 1, 1, 1)$ lies on line ℓ_3
109 : $P_{2133} = (20, 1, 1, 1)$ lies on line ℓ_3
110 : $P_{2134} = (21, 1, 1, 1)$ lies on line ℓ_3
111 : $P_{2135} = (22, 1, 1, 1)$ lies on line ℓ_3
112 : $P_{2136} = (23, 1, 1, 1)$ lies on line ℓ_3
113 : $P_{2137} = (24, 1, 1, 1)$ lies on line ℓ_3
114 : $P_{2138} = (25, 1, 1, 1)$ lies on line ℓ_3
115 : $P_{2139} = (26, 1, 1, 1)$ lies on line ℓ_3
116 : $P_{2140} = (27, 1, 1, 1)$ lies on line ℓ_3
117 : $P_{2141} = (28, 1, 1, 1)$ lies on line ℓ_3
118 : $P_{2142} = (29, 1, 1, 1)$ lies on line ℓ_3
119 : $P_{2143} = (30, 1, 1, 1)$ lies on line ℓ_3
120 : $P_{2144} = (31, 1, 1, 1)$ lies on line ℓ_3
121 : $P_{2147} = (2, 2, 1, 1)$ lies on line ℓ_5
122 : $P_{2180} = (3, 3, 1, 1)$ lies on line ℓ_5
123 : $P_{2213} = (4, 4, 1, 1)$ lies on line ℓ_5

124 : $P_{2246} = (5, 5, 1, 1)$ lies on line ℓ_5
125 : $P_{2279} = (6, 6, 1, 1)$ lies on line ℓ_5
126 : $P_{2312} = (7, 7, 1, 1)$ lies on line ℓ_5
127 : $P_{2345} = (8, 8, 1, 1)$ lies on line ℓ_5
128 : $P_{2378} = (9, 9, 1, 1)$ lies on line ℓ_5
129 : $P_{2411} = (10, 10, 1, 1)$ lies on line ℓ_5
130 : $P_{2444} = (11, 11, 1, 1)$ lies on line ℓ_5
131 : $P_{2477} = (12, 12, 1, 1)$ lies on line ℓ_5
132 : $P_{2510} = (13, 13, 1, 1)$ lies on line ℓ_5
133 : $P_{2543} = (14, 14, 1, 1)$ lies on line ℓ_5
134 : $P_{2576} = (15, 15, 1, 1)$ lies on line ℓ_5
135 : $P_{2609} = (16, 16, 1, 1)$ lies on line ℓ_5
136 : $P_{2642} = (17, 17, 1, 1)$ lies on line ℓ_5
137 : $P_{2675} = (18, 18, 1, 1)$ lies on line ℓ_5
138 : $P_{2708} = (19, 19, 1, 1)$ lies on line ℓ_5
139 : $P_{2741} = (20, 20, 1, 1)$ lies on line ℓ_5
140 : $P_{2774} = (21, 21, 1, 1)$ lies on line ℓ_5
141 : $P_{2807} = (22, 22, 1, 1)$ lies on line ℓ_5
142 : $P_{2840} = (23, 23, 1, 1)$ lies on line ℓ_5
143 : $P_{2873} = (24, 24, 1, 1)$ lies on line ℓ_5
144 : $P_{2906} = (25, 25, 1, 1)$ lies on line ℓ_5
145 : $P_{2939} = (26, 26, 1, 1)$ lies on line ℓ_5
146 : $P_{2972} = (27, 27, 1, 1)$ lies on line ℓ_5
147 : $P_{3005} = (28, 28, 1, 1)$ lies on line ℓ_5
148 : $P_{3038} = (29, 29, 1, 1)$ lies on line ℓ_5
149 : $P_{3071} = (30, 30, 1, 1)$ lies on line ℓ_5
150 : $P_{3104} = (31, 31, 1, 1)$ lies on line ℓ_5
151 : $P_{3105} = (0, 0, 2, 1)$ lies on line ℓ_4
152 : $P_{3140} = (3, 1, 2, 1)$ lies on line ℓ_6
153 : $P_{3204} = (3, 3, 2, 1)$ lies on line ℓ_7
154 : $P_{4129} = (0, 0, 3, 1)$ lies on line ℓ_4
155 : $P_{4163} = (2, 1, 3, 1)$ lies on line ℓ_6
156 : $P_{4195} = (2, 2, 3, 1)$ lies on line ℓ_7
157 : $P_{5153} = (0, 0, 4, 1)$ lies on line ℓ_4
158 : $P_{5190} = (5, 1, 4, 1)$ lies on line ℓ_6
159 : $P_{5318} = (5, 5, 4, 1)$ lies on line ℓ_7
160 : $P_{6177} = (0, 0, 5, 1)$ lies on line ℓ_4
161 : $P_{6213} = (4, 1, 5, 1)$ lies on line ℓ_6
162 : $P_{6309} = (4, 4, 5, 1)$ lies on line ℓ_7
163 : $P_{7201} = (0, 0, 6, 1)$ lies on line ℓ_4
164 : $P_{7240} = (7, 1, 6, 1)$ lies on line ℓ_6
165 : $P_{7432} = (7, 7, 6, 1)$ lies on line ℓ_7
166 : $P_{8225} = (0, 0, 7, 1)$ lies on line ℓ_4
167 : $P_{8263} = (6, 1, 7, 1)$ lies on line ℓ_6
168 : $P_{8423} = (6, 6, 7, 1)$ lies on line ℓ_7
169 : $P_{9249} = (0, 0, 8, 1)$ lies on line ℓ_4
170 : $P_{9290} = (9, 1, 8, 1)$ lies on line ℓ_6
171 : $P_{9546} = (9, 9, 8, 1)$ lies on line ℓ_7
172 : $P_{10273} = (0, 0, 9, 1)$ lies on line ℓ_4
173 : $P_{10313} = (8, 1, 9, 1)$ lies on line ℓ_6
174 : $P_{10537} = (8, 8, 9, 1)$ lies on line ℓ_7
175 : $P_{11297} = (0, 0, 10, 1)$ lies on line ℓ_4
176 : $P_{11340} = (11, 1, 10, 1)$ lies on line ℓ_6
177 : $P_{11660} = (11, 11, 10, 1)$ lies on line ℓ_7
178 : $P_{12321} = (0, 0, 11, 1)$ lies on line ℓ_4
179 : $P_{12363} = (10, 1, 11, 1)$ lies on line ℓ_6
180 : $P_{12651} = (10, 10, 11, 1)$ lies on line ℓ_7
181 : $P_{13345} = (0, 0, 12, 1)$ lies on line ℓ_4
182 : $P_{13390} = (13, 1, 12, 1)$ lies on line ℓ_6
183 : $P_{13774} = (13, 13, 12, 1)$ lies on line ℓ_7
184 : $P_{14369} = (0, 0, 13, 1)$ lies on line ℓ_4
185 : $P_{14413} = (12, 1, 13, 1)$ lies on line ℓ_6
186 : $P_{14765} = (12, 12, 13, 1)$ lies on line ℓ_7
187 : $P_{15393} = (0, 0, 14, 1)$ lies on line ℓ_4
188 : $P_{15440} = (15, 1, 14, 1)$ lies on line ℓ_6
189 : $P_{15888} = (15, 15, 14, 1)$ lies on line ℓ_7
190 : $P_{16417} = (0, 0, 15, 1)$ lies on line ℓ_4
191 : $P_{16463} = (14, 1, 15, 1)$ lies on line ℓ_6
192 : $P_{16879} = (14, 14, 15, 1)$ lies on line ℓ_7
193 : $P_{17441} = (0, 0, 16, 1)$ lies on line ℓ_4
194 : $P_{17490} = (17, 1, 16, 1)$ lies on line ℓ_6
195 : $P_{18002} = (17, 17, 16, 1)$ lies on line ℓ_7
196 : $P_{18465} = (0, 0, 17, 1)$ lies on line ℓ_4
197 : $P_{18513} = (16, 1, 17, 1)$ lies on line ℓ_6
198 : $P_{18993} = (16, 16, 17, 1)$ lies on line ℓ_7
199 : $P_{19489} = (0, 0, 18, 1)$ lies on line ℓ_4
200 : $P_{19540} = (19, 1, 18, 1)$ lies on line ℓ_6
201 : $P_{20116} = (19, 19, 18, 1)$ lies on line ℓ_7
202 : $P_{20513} = (0, 0, 19, 1)$ lies on line ℓ_4
203 : $P_{20563} = (18, 1, 19, 1)$ lies on line ℓ_6
204 : $P_{21107} = (18, 18, 19, 1)$ lies on line ℓ_7
205 : $P_{21537} = (0, 0, 20, 1)$ lies on line ℓ_4
206 : $P_{21590} = (21, 1, 20, 1)$ lies on line ℓ_6
207 : $P_{22230} = (21, 21, 20, 1)$ lies on line ℓ_7
208 : $P_{22561} = (0, 0, 21, 1)$ lies on line ℓ_4
209 : $P_{22613} = (20, 1, 21, 1)$ lies on line ℓ_6
210 : $P_{23221} = (20, 20, 21, 1)$ lies on line ℓ_7
211 : $P_{23585} = (0, 0, 22, 1)$ lies on line ℓ_4
212 : $P_{23640} = (23, 1, 22, 1)$ lies on line ℓ_6
213 : $P_{24344} = (23, 23, 22, 1)$ lies on line ℓ_7
214 : $P_{24609} = (0, 0, 23, 1)$ lies on line ℓ_4
215 : $P_{24663} = (22, 1, 23, 1)$ lies on line ℓ_6
216 : $P_{25335} = (22, 22, 23, 1)$ lies on line ℓ_7
217 : $P_{25633} = (0, 0, 24, 1)$ lies on line ℓ_4
218 : $P_{25690} = (25, 1, 24, 1)$ lies on line ℓ_6
219 : $P_{26458} = (25, 25, 24, 1)$ lies on line ℓ_7
220 : $P_{26657} = (0, 0, 25, 1)$ lies on line ℓ_4
221 : $P_{26713} = (24, 1, 25, 1)$ lies on line ℓ_6
222 : $P_{27449} = (24, 24, 25, 1)$ lies on line ℓ_7
223 : $P_{27681} = (0, 0, 26, 1)$ lies on line ℓ_4
224 : $P_{27740} = (27, 1, 26, 1)$ lies on line ℓ_6
225 : $P_{28572} = (27, 27, 26, 1)$ lies on line ℓ_7
226 : $P_{28705} = (0, 0, 27, 1)$ lies on line ℓ_4
227 : $P_{28763} = (26, 1, 27, 1)$ lies on line ℓ_6
228 : $P_{29563} = (26, 26, 27, 1)$ lies on line ℓ_7
229 : $P_{29729} = (0, 0, 28, 1)$ lies on line ℓ_4
230 : $P_{29790} = (29, 1, 28, 1)$ lies on line ℓ_6
231 : $P_{30686} = (29, 29, 28, 1)$ lies on line ℓ_7

232 : $P_{30753} = (0, 0, 29, 1)$ lies on line ℓ_4
233 : $P_{30813} = (28, 1, 29, 1)$ lies on line ℓ_6
234 : $P_{31677} = (28, 28, 29, 1)$ lies on line ℓ_7
235 : $P_{31777} = (0, 0, 30, 1)$ lies on line ℓ_4
236 : $P_{31840} = (31, 1, 30, 1)$ lies on line ℓ_6
237 : $P_{32800} = (31, 31, 30, 1)$ lies on line ℓ_7
238 : $P_{32801} = (0, 0, 31, 1)$ lies on line ℓ_4
239 : $P_{32863} = (30, 1, 31, 1)$ lies on line ℓ_6
240 : $P_{33791} = (30, 30, 31, 1)$ lies on line ℓ_7

The single points on the surface are:

Points on surface but on no line

The surface has 870 points not on any line:
The points on the surface but not on lines are:

0 : $P_{1126} = (4, 2, 0, 1)$
1 : $P_{1159} = (5, 3, 0, 1)$
2 : $P_{1202} = (16, 4, 0, 1)$
3 : $P_{1235} = (17, 5, 0, 1)$
4 : $P_{1270} = (20, 6, 0, 1)$
5 : $P_{1303} = (21, 7, 0, 1)$
6 : $P_{1324} = (10, 8, 0, 1)$
7 : $P_{1357} = (11, 9, 0, 1)$
8 : $P_{1392} = (14, 10, 0, 1)$
9 : $P_{1425} = (15, 11, 0, 1)$
10 : $P_{1468} = (26, 12, 0, 1)$
11 : $P_{1501} = (27, 13, 0, 1)$
12 : $P_{1536} = (30, 14, 0, 1)$
13 : $P_{1569} = (31, 15, 0, 1)$
14 : $P_{1583} = (13, 16, 0, 1)$
15 : $P_{1614} = (12, 17, 0, 1)$
16 : $P_{1643} = (9, 18, 0, 1)$
17 : $P_{1674} = (8, 19, 0, 1)$
18 : $P_{1727} = (29, 20, 0, 1)$
19 : $P_{1758} = (28, 21, 0, 1)$
20 : $P_{1787} = (25, 22, 0, 1)$
21 : $P_{1818} = (24, 23, 0, 1)$
22 : $P_{1833} = (7, 24, 0, 1)$
23 : $P_{1864} = (6, 25, 0, 1)$
24 : $P_{1893} = (3, 26, 0, 1)$
25 : $P_{1924} = (2, 27, 0, 1)$
26 : $P_{1977} = (23, 28, 0, 1)$
27 : $P_{2008} = (22, 29, 0, 1)$
28 : $P_{2037} = (19, 30, 0, 1)$
29 : $P_{2068} = (18, 31, 0, 1)$
30 : $P_{3200} = (31, 2, 2, 1)$
31 : $P_{3233} = (0, 4, 2, 1)$
32 : $P_{3291} = (26, 5, 2, 1)$
33 : $P_{3311} = (14, 6, 2, 1)$
34 : $P_{3339} = (10, 7, 2, 1)$
35 : $P_{3389} = (28, 8, 2, 1)$
36 : $P_{3405} = (12, 9, 2, 1)$
37 : $P_{3436} = (11, 10, 2, 1)$
38 : $P_{3487} = (30, 11, 2, 1)$
39 : $P_{3498} = (9, 12, 2, 1)$
40 : $P_{3545} = (24, 13, 2, 1)$
41 : $P_{3569} = (16, 14, 2, 1)$
42 : $P_{3601} = (16, 15, 2, 1)$
43 : $P_{3643} = (26, 16, 2, 1)$
44 : $P_{3677} = (28, 17, 2, 1)$
45 : $P_{3720} = (7, 19, 2, 1)$
46 : $P_{3766} = (21, 20, 2, 1)$
47 : $P_{3789} = (12, 21, 2, 1)$
48 : $P_{3839} = (30, 22, 2, 1)$
49 : $P_{3851} = (10, 23, 2, 1)$
50 : $P_{3884} = (11, 24, 2, 1)$
51 : $P_{3912} = (7, 25, 2, 1)$
52 : $P_{3946} = (9, 26, 2, 1)$
53 : $P_{3971} = (2, 27, 2, 1)$
54 : $P_{4025} = (24, 28, 2, 1)$
55 : $P_{4064} = (31, 29, 2, 1)$
56 : $P_{4079} = (14, 30, 2, 1)$
57 : $P_{4118} = (21, 31, 2, 1)$
58 : $P_{4241} = (16, 3, 3, 1)$
59 : $P_{4282} = (25, 4, 3, 1)$
60 : $P_{4289} = (0, 5, 3, 1)$
61 : $P_{4338} = (17, 6, 3, 1)$
62 : $P_{4379} = (26, 7, 3, 1)$
63 : $P_{4404} = (19, 8, 3, 1)$
64 : $P_{4443} = (26, 9, 3, 1)$
65 : $P_{4478} = (29, 10, 3, 1)$
66 : $P_{4504} = (23, 11, 3, 1)$
67 : $P_{4524} = (11, 12, 3, 1)$
68 : $P_{4574} = (29, 13, 3, 1)$
69 : $P_{4598} = (21, 14, 3, 1)$
70 : $P_{4634} = (25, 15, 3, 1)$
71 : $P_{4647} = (6, 16, 3, 1)$
72 : $P_{4694} = (21, 17, 3, 1)$
73 : $P_{4728} = (23, 18, 3, 1)$
74 : $P_{4753} = (16, 19, 3, 1)$
75 : $P_{4780} = (11, 20, 3, 1)$
76 : $P_{4818} = (17, 21, 3, 1)$
77 : $P_{4857} = (24, 22, 3, 1)$

78 : $P_{4872} = (7, 23, 3, 1)$
79 : $P_{4928} = (31, 24, 3, 1)$
80 : $P_{4960} = (31, 25, 3, 1)$
81 : $P_{4964} = (3, 26, 3, 1)$
82 : $P_{5000} = (7, 27, 3, 1)$
83 : $P_{5076} = (19, 29, 3, 1)$
84 : $P_{5113} = (24, 30, 3, 1)$
85 : $P_{5127} = (6, 31, 3, 1)$
86 : $P_{5221} = (4, 2, 4, 1)$
87 : $P_{5260} = (11, 3, 4, 1)$
88 : $P_{5299} = (18, 4, 4, 1)$
89 : $P_{5366} = (21, 6, 4, 1)$
90 : $P_{5392} = (15, 7, 4, 1)$
91 : $P_{5430} = (21, 8, 4, 1)$
92 : $P_{5496} = (23, 10, 4, 1)$
93 : $P_{5531} = (26, 11, 4, 1)$
94 : $P_{5560} = (23, 12, 4, 1)$
95 : $P_{5572} = (3, 13, 4, 1)$
96 : $P_{5616} = (15, 14, 4, 1)$
97 : $P_{5652} = (19, 15, 4, 1)$
98 : $P_{5665} = (0, 16, 4, 1)$
99 : $P_{5700} = (3, 17, 4, 1)$
100 : $P_{5757} = (28, 18, 4, 1)$
101 : $P_{5791} = (30, 19, 4, 1)$
102 : $P_{5823} = (30, 20, 4, 1)$
103 : $P_{5839} = (14, 21, 4, 1)$
104 : $P_{5875} = (18, 22, 4, 1)$
105 : $P_{5896} = (7, 23, 4, 1)$
106 : $P_{5935} = (14, 24, 4, 1)$
107 : $P_{5972} = (19, 25, 4, 1)$
108 : $P_{5996} = (11, 26, 4, 1)$
109 : $P_{6024} = (7, 27, 4, 1)$
110 : $P_{6075} = (26, 28, 4, 1)$
111 : $P_{6109} = (28, 29, 4, 1)$
112 : $P_{6126} = (13, 30, 4, 1)$
113 : $P_{6158} = (13, 31, 4, 1)$
114 : $P_{6262} = (21, 2, 5, 1)$
115 : $P_{6278} = (5, 3, 5, 1)$
116 : $P_{6350} = (13, 5, 5, 1)$
117 : $P_{6387} = (18, 6, 5, 1)$
118 : $P_{6419} = (18, 7, 5, 1)$
119 : $P_{6446} = (13, 8, 5, 1)$
120 : $P_{6489} = (24, 9, 5, 1)$
121 : $P_{6505} = (8, 10, 5, 1)$
122 : $P_{6532} = (3, 11, 5, 1)$
123 : $P_{6589} = (28, 12, 5, 1)$
124 : $P_{6613} = (20, 13, 5, 1)$
125 : $P_{6647} = (22, 14, 5, 1)$
126 : $P_{6681} = (24, 15, 5, 1)$
127 : $P_{6695} = (6, 16, 5, 1)$
128 : $P_{6721} = (0, 17, 5, 1)$
129 : $P_{6773} = (20, 18, 5, 1)$
130 : $P_{6792} = (7, 19, 5, 1)$
131 : $P_{6829} = (12, 20, 5, 1)$
132 : $P_{6852} = (3, 21, 5, 1)$
133 : $P_{6889} = (8, 22, 5, 1)$
134 : $P_{6966} = (21, 24, 5, 1)$
135 : $P_{6984} = (7, 25, 5, 1)$
136 : $P_{7024} = (15, 26, 5, 1)$
137 : $P_{7063} = (22, 27, 5, 1)$
138 : $P_{7085} = (12, 28, 5, 1)$
139 : $P_{7120} = (15, 29, 5, 1)$
140 : $P_{7165} = (28, 30, 5, 1)$
141 : $P_{7175} = (6, 31, 5, 1)$
142 : $P_{7289} = (24, 2, 6, 1)$
143 : $P_{7316} = (19, 3, 6, 1)$
144 : $P_{7343} = (14, 4, 6, 1)$
145 : $P_{7362} = (1, 5, 6, 1)$
146 : $P_{7404} = (11, 6, 6, 1)$
147 : $P_{7483} = (26, 8, 6, 1)$
148 : $P_{7517} = (28, 9, 6, 1)$
149 : $P_{7547} = (26, 10, 6, 1)$
150 : $P_{7556} = (3, 11, 6, 1)$
151 : $P_{7609} = (24, 12, 6, 1)$
152 : $P_{7628} = (11, 13, 6, 1)$
153 : $P_{7693} = (12, 15, 6, 1)$
154 : $P_{7738} = (25, 16, 6, 1)$
155 : $P_{7759} = (14, 17, 6, 1)$
156 : $P_{7796} = (19, 18, 6, 1)$
157 : $P_{7832} = (23, 19, 6, 1)$
158 : $P_{7841} = (0, 20, 6, 1)$
159 : $P_{7876} = (3, 21, 6, 1)$
160 : $P_{7917} = (12, 22, 6, 1)$
161 : $P_{7938} = (1, 23, 6, 1)$
162 : $P_{7994} = (25, 24, 6, 1)$
163 : $P_{8007} = (6, 25, 6, 1)$
164 : $P_{8056} = (23, 26, 6, 1)$
165 : $P_{8074} = (9, 27, 6, 1)$
166 : $P_{8106} = (9, 28, 6, 1)$
167 : $P_{8149} = (20, 29, 6, 1)$
168 : $P_{8181} = (20, 30, 6, 1)$
169 : $P_{8221} = (28, 31, 6, 1)$
170 : $P_{8305} = (16, 2, 7, 1)$
171 : $P_{8335} = (14, 3, 7, 1)$
172 : $P_{8362} = (9, 4, 7, 1)$
173 : $P_{8386} = (1, 5, 7, 1)$
174 : $P_{8457} = (8, 7, 7, 1)$
175 : $P_{8497} = (16, 8, 7, 1)$
176 : $P_{8536} = (23, 9, 7, 1)$
177 : $P_{8566} = (21, 10, 7, 1)$
178 : $P_{8586} = (9, 11, 7, 1)$
179 : $P_{8644} = (3, 13, 7, 1)$
180 : $P_{8700} = (27, 14, 7, 1)$
181 : $P_{8713} = (8, 15, 7, 1)$
182 : $P_{8764} = (27, 16, 7, 1)$
183 : $P_{8772} = (3, 17, 7, 1)$
184 : $P_{8811} = (10, 18, 7, 1)$
185 : $P_{8850} = (17, 19, 7, 1)$

$186: P_{8875} = (10, 20, 7, 1)$
$187: P_{8897} = (0, 21, 7, 1)$
$188: P_{8952} = (23, 22, 7, 1)$
$189: P_{8962} = (1, 23, 7, 1)$
$190: P_{9000} = (7, 24, 7, 1)$
$191: P_{9039} = (14, 25, 7, 1)$
$192: P_{9087} = (30, 26, 7, 1)$
$193: P_{9110} = (21, 27, 7, 1)$
$194: P_{9132} = (11, 28, 7, 1)$
$195: P_{9164} = (11, 29, 7, 1)$
$196: P_{9202} = (17, 30, 7, 1)$
$197: P_{9247} = (30, 31, 7, 1)$
$198: P_{9338} = (25, 2, 8, 1)$
$199: P_{9366} = (21, 3, 8, 1)$
$200: P_{9391} = (14, 4, 8, 1)$
$201: P_{9422} = (13, 5, 8, 1)$
$202: P_{9443} = (2, 6, 8, 1)$
$203: P_{9483} = (10, 7, 8, 1)$
$204: P_{9518} = (13, 8, 8, 1)$
$205: P_{9569} = (0, 10, 8, 1)$
$206: P_{9618} = (17, 11, 8, 1)$
$207: P_{9644} = (11, 12, 8, 1)$
$208: P_{9666} = (1, 13, 8, 1)$
$209: P_{9721} = (24, 14, 8, 1)$
$210: P_{9730} = (1, 15, 8, 1)$
$211: P_{9782} = (21, 16, 8, 1)$
$212: P_{9807} = (14, 17, 8, 1)$
$213: P_{9856} = (31, 18, 8, 1)$
$214: P_{9865} = (8, 19, 8, 1)$
$215: P_{9900} = (11, 20, 8, 1)$
$216: P_{9948} = (27, 21, 8, 1)$
$217: P_{9995} = (10, 23, 8, 1)$
$218: P_{10022} = (5, 24, 8, 1)$
$219: P_{10076} = (27, 25, 8, 1)$
$220: P_{10105} = (24, 26, 8, 1)$
$221: P_{10144} = (31, 27, 8, 1)$
$222: P_{10147} = (2, 28, 8, 1)$
$223: P_{10194} = (17, 29, 8, 1)$
$224: P_{10234} = (25, 30, 8, 1)$
$225: P_{10246} = (5, 31, 8, 1)$
$226: P_{10365} = (28, 2, 9, 1)$
$227: P_{10383} = (14, 3, 9, 1)$
$228: P_{10439} = (6, 5, 9, 1)$
$229: P_{10487} = (22, 6, 9, 1)$
$230: P_{10528} = (31, 7, 9, 1)$
$231: P_{10591} = (30, 9, 9, 1)$
$232: P_{10604} = (11, 10, 9, 1)$
$233: P_{10625} = (0, 11, 9, 1)$
$234: P_{10675} = (18, 12, 9, 1)$
$235: P_{10690} = (1, 13, 9, 1)$
$236: P_{10749} = (28, 14, 9, 1)$
$237: P_{10754} = (1, 15, 9, 1)$
$238: P_{10816} = (31, 16, 9, 1)$
$239: P_{10835} = (18, 17, 9, 1)$
$240: P_{10858} = (9, 18, 9, 1)$
$241: P_{10910} = (29, 19, 9, 1)$
$242: P_{10925} = (12, 20, 9, 1)$
$243: P_{10965} = (20, 21, 9, 1)$
$244: P_{11006} = (29, 22, 9, 1)$
$245: P_{11039} = (30, 23, 9, 1)$
$246: P_{11052} = (11, 24, 9, 1)$
$247: P_{11087} = (14, 25, 9, 1)$
$248: P_{11127} = (22, 26, 9, 1)$
$249: P_{11157} = (20, 27, 9, 1)$
$250: P_{11181} = (12, 28, 9, 1)$
$251: P_{11207} = (6, 29, 9, 1)$
$252: P_{11246} = (13, 30, 9, 1)$
$253: P_{11278} = (13, 31, 9, 1)$
$254: P_{11379} = (18, 2, 10, 1)$
$255: P_{11400} = (7, 3, 10, 1)$
$256: P_{11431} = (6, 4, 10, 1)$
$257: P_{11485} = (28, 5, 10, 1)$
$258: P_{11491} = (2, 6, 10, 1)$
$259: P_{11538} = (17, 7, 10, 1)$
$260: P_{11563} = (10, 8, 10, 1)$
$261: P_{11603} = (18, 9, 10, 1)$
$262: P_{11644} = (27, 10, 10, 1)$
$263: P_{11711} = (30, 12, 10, 1)$
$264: P_{11741} = (28, 13, 10, 1)$
$265: P_{11745} = (0, 14, 10, 1)$
$266: P_{11789} = (12, 15, 10, 1)$
$267: P_{11839} = (30, 16, 10, 1)$
$268: P_{11868} = (27, 17, 10, 1)$
$269: P_{11890} = (17, 18, 10, 1)$
$270: P_{11911} = (6, 19, 10, 1)$
$271: P_{11941} = (4, 20, 10, 1)$
$272: P_{11983} = (14, 21, 10, 1)$
$273: P_{12013} = (12, 22, 10, 1)$
$274: P_{12037} = (4, 23, 10, 1)$
$275: P_{12079} = (14, 24, 10, 1)$
$276: P_{12144} = (15, 26, 10, 1)$
$277: P_{12162} = (1, 27, 10, 1)$
$278: P_{12195} = (2, 28, 10, 1)$
$279: P_{12240} = (15, 29, 10, 1)$
$280: P_{12264} = (7, 30, 10, 1)$
$281: P_{12290} = (1, 31, 10, 1)$
$282: P_{12414} = (29, 2, 11, 1)$
$283: P_{12442} = (25, 3, 11, 1)$
$284: P_{12472} = (23, 4, 11, 1)$
$285: P_{12511} = (30, 5, 11, 1)$
$286: P_{12543} = (30, 6, 11, 1)$
$287: P_{12560} = (15, 7, 11, 1)$
$288: P_{12599} = (22, 8, 11, 1)$
$289: P_{12620} = (11, 9, 11, 1)$
$290: P_{12692} = (19, 11, 11, 1)$
$291: P_{12714} = (9, 12, 11, 1)$
$292: P_{12755} = (18, 13, 11, 1)$
$293: P_{12784} = (15, 14, 11, 1)$

$294: P_{12801} = (0, 15, 11, 1)$
$295: P_{12885} = (20, 17, 11, 1)$
$296: P_{12924} = (27, 18, 11, 1)$
$297: P_{12956} = (27, 19, 11, 1)$
$298: P_{12986} = (25, 20, 11, 1)$
$299: P_{13011} = (18, 21, 11, 1)$
$300: P_{13045} = (20, 22, 11, 1)$
$301: P_{13083} = (26, 23, 11, 1)$
$302: P_{13108} = (19, 24, 11, 1)$
$303: P_{13143} = (22, 25, 11, 1)$
$304: P_{13162} = (9, 26, 11, 1)$
$305: P_{13186} = (1, 27, 11, 1)$
$306: P_{13246} = (29, 28, 11, 1)$
$307: P_{13275} = (26, 29, 11, 1)$
$308: P_{13304} = (23, 30, 11, 1)$
$309: P_{13314} = (1, 31, 11, 1)$
$310: P_{13431} = (22, 2, 12, 1)$
$311: P_{13465} = (24, 3, 12, 1)$
$312: P_{13479} = (6, 4, 12, 1)$
$313: P_{13523} = (18, 5, 12, 1)$
$314: P_{13551} = (14, 6, 12, 1)$
$315: P_{13625} = (24, 8, 12, 1)$
$316: P_{13662} = (29, 9, 12, 1)$
$317: P_{13693} = (28, 10, 12, 1)$
$318: P_{13719} = (22, 11, 12, 1)$
$319: P_{13731} = (2, 12, 12, 1)$
$320: P_{13795} = (2, 14, 12, 1)$
$321: P_{13846} = (21, 15, 12, 1)$
$322: P_{13880} = (23, 16, 12, 1)$
$323: P_{13901} = (12, 17, 12, 1)$
$324: P_{13942} = (21, 18, 12, 1)$
$325: P_{13959} = (6, 19, 12, 1)$
$326: P_{14013} = (28, 20, 12, 1)$
$327: P_{14040} = (23, 21, 12, 1)$
$328: P_{14052} = (3, 22, 12, 1)$
$329: P_{14098} = (17, 23, 12, 1)$
$330: P_{14116} = (3, 24, 12, 1)$
$331: P_{14163} = (18, 25, 12, 1)$
$332: P_{14177} = (0, 26, 12, 1)$
$333: P_{14238} = (29, 27, 12, 1)$
$334: P_{14252} = (11, 28, 12, 1)$
$335: P_{14284} = (11, 29, 12, 1)$
$336: P_{14319} = (14, 30, 12, 1)$
$337: P_{14354} = (17, 31, 12, 1)$
$338: P_{14450} = (17, 2, 13, 1)$
$339: P_{14472} = (7, 3, 13, 1)$
$340: P_{14525} = (28, 4, 13, 1)$
$341: P_{14560} = (31, 5, 13, 1)$
$342: P_{14572} = (11, 6, 13, 1)$
$343: P_{14621} = (28, 7, 13, 1)$
$344: P_{14627} = (2, 8, 13, 1)$
$345: P_{14659} = (2, 9, 13, 1)$
$346: P_{14697} = (8, 10, 13, 1)$
$347: P_{14745} = (24, 11, 13, 1)$
$348: P_{14796} = (11, 13, 13, 1)$
$349: P_{14840} = (23, 14, 13, 1)$
$350: P_{14894} = (13, 16, 13, 1)$
$351: P_{14944} = (31, 17, 13, 1)$
$352: P_{14955} = (10, 18, 13, 1)$
$353: P_{14995} = (18, 19, 13, 1)$
$354: P_{15019} = (10, 20, 13, 1)$
$355: P_{15060} = (19, 21, 13, 1)$
$356: P_{15081} = (8, 22, 13, 1)$
$357: P_{15124} = (19, 23, 13, 1)$
$358: P_{15142} = (5, 24, 13, 1)$
$359: P_{15193} = (24, 25, 13, 1)$
$360: P_{15218} = (17, 26, 13, 1)$
$361: P_{15233} = (0, 27, 13, 1)$
$362: P_{15283} = (18, 28, 13, 1)$
$363: P_{15320} = (23, 29, 13, 1)$
$364: P_{15336} = (7, 30, 13, 1)$
$365: P_{15366} = (5, 31, 13, 1)$
$366: P_{15458} = (1, 2, 14, 1)$
$367: P_{15520} = (31, 3, 14, 1)$
$368: P_{15530} = (9, 4, 14, 1)$
$369: P_{15574} = (21, 5, 14, 1)$
$370: P_{15647} = (30, 7, 14, 1)$
$371: P_{15669} = (20, 8, 14, 1)$
$372: P_{15693} = (12, 9, 14, 1)$
$373: P_{15727} = (14, 10, 14, 1)$
$374: P_{15754} = (9, 11, 14, 1)$
$375: P_{15779} = (2, 12, 14, 1)$
$376: P_{15828} = (19, 13, 14, 1)$
$377: P_{15843} = (2, 14, 14, 1)$
$378: P_{15925} = (20, 16, 14, 1)$
$379: P_{15960} = (23, 17, 14, 1)$
$380: P_{15970} = (1, 18, 14, 1)$
$381: P_{16022} = (21, 19, 14, 1)$
$382: P_{16037} = (4, 20, 14, 1)$
$383: P_{16077} = (12, 21, 14, 1)$
$384: P_{16128} = (31, 22, 14, 1)$
$385: P_{16133} = (4, 23, 14, 1)$
$386: P_{16177} = (16, 24, 14, 1)$
$387: P_{16219} = (26, 25, 14, 1)$
$388: P_{16244} = (19, 26, 14, 1)$
$389: P_{16280} = (23, 27, 14, 1)$
$390: P_{16319} = (30, 28, 14, 1)$
$391: P_{16337} = (16, 29, 14, 1)$
$392: P_{16353} = (0, 30, 14, 1)$
$393: P_{16411} = (26, 31, 14, 1)$
$394: P_{16482} = (1, 2, 15, 1)$
$395: P_{16524} = (11, 3, 15, 1)$
$396: P_{16567} = (22, 4, 15, 1)$
$397: P_{16583} = (6, 5, 15, 1)$
$398: P_{16634} = (25, 6, 15, 1)$
$399: P_{16649} = (8, 7, 15, 1)$
$400: P_{16675} = (2, 8, 15, 1)$
$401: P_{16707} = (2, 9, 15, 1)$

$402: P_{16762} = (25, 10, 15, 1)$
$403: P_{16784} = (15, 11, 15, 1)$
$404: P_{16830} = (29, 12, 15, 1)$
$405: P_{16905} = (8, 15, 15, 1)$
$406: P_{16953} = (24, 16, 15, 1)$
$407: P_{16980} = (19, 17, 15, 1)$
$408: P_{16994} = (1, 18, 15, 1)$
$409: P_{17049} = (24, 19, 15, 1)$
$410: P_{17076} = (19, 20, 15, 1)$
$411: P_{17120} = (31, 21, 15, 1)$
$412: P_{17124} = (3, 22, 15, 1)$
$413: P_{17175} = (22, 23, 15, 1)$
$414: P_{17188} = (3, 24, 15, 1)$
$415: P_{17246} = (29, 25, 15, 1)$
$416: P_{17260} = (11, 26, 15, 1)$
$417: P_{17290} = (9, 27, 15, 1)$
$418: P_{17322} = (9, 28, 15, 1)$
$419: P_{17351} = (6, 29, 15, 1)$
$420: P_{17408} = (31, 30, 15, 1)$
$421: P_{17409} = (0, 31, 15, 1)$
$422: P_{17526} = (21, 2, 16, 1)$
$423: P_{17552} = (15, 3, 16, 1)$
$424: P_{17585} = (16, 4, 16, 1)$
$425: P_{17616} = (15, 5, 16, 1)$
$426: P_{17641} = (8, 6, 16, 1)$
$427: P_{17695} = (30, 7, 16, 1)$
$428: P_{17716} = (19, 8, 16, 1)$
$429: P_{17752} = (23, 9, 16, 1)$
$430: P_{17789} = (28, 10, 16, 1)$
$431: P_{17830} = (5, 12, 16, 1)$
$432: P_{17857} = (0, 13, 16, 1)$
$433: P_{17913} = (24, 14, 16, 1)$
$434: P_{17924} = (3, 15, 16, 1)$
$435: P_{17962} = (9, 16, 16, 1)$
$436: P_{18044} = (27, 18, 16, 1)$
$437: P_{18076} = (27, 19, 16, 1)$
$438: P_{18109} = (28, 20, 16, 1)$
$439: P_{18144} = (31, 21, 16, 1)$
$440: P_{18168} = (23, 22, 16, 1)$
$441: P_{18180} = (3, 23, 16, 1)$
$442: P_{18230} = (21, 24, 16, 1)$
$443: P_{18250} = (9, 25, 16, 1)$
$444: P_{18297} = (24, 26, 16, 1)$
$445: P_{18310} = (5, 27, 16, 1)$
$446: P_{18367} = (30, 28, 16, 1)$
$447: P_{18388} = (19, 29, 16, 1)$
$448: P_{18432} = (31, 30, 16, 1)$
$449: P_{18441} = (8, 31, 16, 1)$
$450: P_{18554} = (25, 2, 17, 1)$
$451: P_{18592} = (31, 3, 17, 1)$
$452: P_{18621} = (28, 4, 17, 1)$
$453: P_{18642} = (17, 5, 17, 1)$
$454: P_{18678} = (21, 6, 17, 1)$
$455: P_{18717} = (28, 7, 17, 1)$
$456: P_{18742} = (21, 8, 17, 1)$
$457: P_{18782} = (29, 9, 17, 1)$
$458: P_{18812} = (27, 10, 17, 1)$
$459: P_{18824} = (7, 11, 17, 1)$
$460: P_{18849} = (0, 12, 17, 1)$
$461: P_{18901} = (20, 13, 17, 1)$
$462: P_{18923} = (10, 14, 17, 1)$
$463: P_{18950} = (5, 15, 17, 1)$
$464: P_{19036} = (27, 17, 17, 1)$
$465: P_{19061} = (20, 18, 17, 1)$
$466: P_{19096} = (23, 19, 17, 1)$
$467: P_{19114} = (9, 20, 17, 1)$
$468: P_{19146} = (9, 21, 17, 1)$
$469: P_{19200} = (31, 22, 17, 1)$
$470: P_{19227} = (26, 23, 17, 1)$
$471: P_{19275} = (10, 25, 17, 1)$
$472: P_{19320} = (23, 26, 17, 1)$
$473: P_{19358} = (29, 27, 17, 1)$
$474: P_{19366} = (5, 28, 17, 1)$
$475: P_{19419} = (26, 29, 17, 1)$
$476: P_{19450} = (25, 30, 17, 1)$
$477: P_{19464} = (7, 31, 17, 1)$
$478: P_{19610} = (25, 3, 18, 1)$
$479: P_{19632} = (15, 4, 18, 1)$
$480: P_{19680} = (31, 5, 18, 1)$
$481: P_{19698} = (17, 6, 18, 1)$
$482: P_{19719} = (6, 7, 18, 1)$
$483: P_{19754} = (9, 8, 18, 1)$
$484: P_{19777} = (0, 9, 18, 1)$
$485: P_{19830} = (21, 10, 18, 1)$
$486: P_{19842} = (1, 11, 18, 1)$
$487: P_{19902} = (29, 12, 18, 1)$
$488: P_{19911} = (6, 13, 18, 1)$
$489: P_{19953} = (16, 14, 18, 1)$
$490: P_{19985} = (16, 15, 18, 1)$
$491: P_{20002} = (1, 16, 18, 1)$
$492: P_{20064} = (31, 17, 18, 1)$
$493: P_{20079} = (14, 18, 18, 1)$
$494: P_{20154} = (25, 20, 18, 1)$
$495: P_{20178} = (17, 21, 18, 1)$
$496: P_{20203} = (10, 22, 18, 1)$
$497: P_{20234} = (9, 23, 18, 1)$
$498: P_{20272} = (15, 24, 18, 1)$
$499: P_{20318} = (29, 25, 18, 1)$
$500: P_{20331} = (10, 26, 18, 1)$
$501: P_{20374} = (21, 27, 18, 1)$
$502: P_{20399} = (14, 28, 18, 1)$
$503: P_{20437} = (20, 29, 18, 1)$
$504: P_{20469} = (20, 30, 18, 1)$
$505: P_{20499} = (18, 31, 18, 1)$
$506: P_{20587} = (10, 2, 19, 1)$
$507: P_{20625} = (16, 3, 19, 1)$
$508: P_{20648} = (7, 4, 19, 1)$
$509: P_{20683} = (10, 5, 19, 1)$

$510: P_{20714} = (9, 6, 19, 1)$
$511: P_{20750} = (13, 7, 19, 1)$
$512: P_{20769} = (0, 8, 19, 1)$
$513: P_{20806} = (5, 9, 19, 1)$
$514: P_{20856} = (23, 10, 19, 1)$
$515: P_{20866} = (1, 11, 19, 1)$
$516: P_{20920} = (23, 12, 19, 1)$
$517: P_{20944} = (15, 13, 19, 1)$
$518: P_{20983} = (22, 14, 19, 1)$
$519: P_{20996} = (3, 15, 19, 1)$
$520: P_{21026} = (1, 16, 19, 1)$
$521: P_{21066} = (9, 17, 19, 1)$
$522: P_{21137} = (16, 19, 19, 1)$
$523: P_{21158} = (5, 20, 19, 1)$
$524: P_{21212} = (27, 21, 19, 1)$
$525: P_{21230} = (13, 22, 19, 1)$
$526: P_{21252} = (3, 23, 19, 1)$
$527: P_{21289} = (8, 24, 19, 1)$
$528: P_{21340} = (27, 25, 19, 1)$
$529: P_{21352} = (7, 26, 19, 1)$
$530: P_{21399} = (22, 27, 19, 1)$
$531: P_{21417} = (8, 28, 19, 1)$
$532: P_{21492} = (19, 30, 19, 1)$
$533: P_{21520} = (15, 31, 19, 1)$
$534: P_{21612} = (11, 2, 20, 1)$
$535: P_{21657} = (24, 3, 20, 1)$
$536: P_{21672} = (7, 4, 20, 1)$
$537: P_{21705} = (8, 5, 20, 1)$
$538: P_{21749} = (20, 6, 20, 1)$
$539: P_{21767} = (6, 7, 20, 1)$
$540: P_{21817} = (24, 8, 20, 1)$
$541: P_{21833} = (8, 9, 20, 1)$
$542: P_{21860} = (3, 10, 20, 1)$
$543: P_{21912} = (23, 11, 20, 1)$
$544: P_{21951} = (30, 12, 20, 1)$
$545: P_{21959} = (6, 13, 20, 1)$
$546: P_{21988} = (3, 14, 20, 1)$
$547: P_{22022} = (5, 15, 20, 1)$
$548: P_{22079} = (30, 16, 20, 1)$
$549: P_{22082} = (1, 17, 20, 1)$
$550: P_{22136} = (23, 18, 20, 1)$
$551: P_{22174} = (29, 19, 20, 1)$
$552: P_{22192} = (15, 20, 20, 1)$
$553: P_{22270} = (29, 22, 20, 1)$
$554: P_{22284} = (11, 23, 20, 1)$
$555: P_{22306} = (1, 24, 20, 1)$
$556: P_{22363} = (26, 25, 20, 1)$
$557: P_{22376} = (7, 26, 20, 1)$
$558: P_{22416} = (15, 27, 20, 1)$
$559: P_{22438} = (5, 28, 20, 1)$
$560: P_{22465} = (0, 29, 20, 1)$
$561: P_{22555} = (26, 31, 20, 1)$
$562: P_{22653} = (28, 2, 21, 1)$
$563: P_{22676} = (19, 3, 21, 1)$
$564: P_{22702} = (13, 4, 21, 1)$
$565: P_{22751} = (30, 5, 21, 1)$
$566: P_{22783} = (30, 6, 21, 1)$
$567: P_{22806} = (21, 7, 21, 1)$
$568: P_{22829} = (12, 8, 21, 1)$
$569: P_{22863} = (14, 9, 21, 1)$
$570: P_{22894} = (13, 10, 21, 1)$
$571: P_{22937} = (24, 11, 21, 1)$
$572: P_{22950} = (5, 12, 21, 1)$
$573: P_{22979} = (2, 13, 21, 1)$
$574: P_{23037} = (28, 14, 21, 1)$
$575: P_{23052} = (11, 15, 21, 1)$
$576: P_{23084} = (11, 16, 21, 1)$
$577: P_{23106} = (1, 17, 21, 1)$
$578: P_{23156} = (19, 18, 21, 1)$
$579: P_{23181} = (12, 19, 21, 1)$
$580: P_{23243} = (10, 21, 21, 1)$
$581: P_{23280} = (15, 22, 21, 1)$
$582: P_{23312} = (15, 23, 21, 1)$
$583: P_{23330} = (1, 24, 21, 1)$
$584: P_{23385} = (24, 25, 21, 1)$
$585: P_{23430} = (5, 27, 21, 1)$
$586: P_{23457} = (0, 28, 21, 1)$
$587: P_{23503} = (14, 29, 21, 1)$
$588: P_{23523} = (2, 30, 21, 1)$
$589: P_{23563} = (10, 31, 21, 1)$
$590: P_{23678} = (29, 2, 22, 1)$
$591: P_{23689} = (8, 3, 22, 1)$
$592: P_{23731} = (18, 4, 22, 1)$
$593: P_{23773} = (28, 5, 22, 1)$
$594: P_{23802} = (25, 6, 22, 1)$
$595: P_{23840} = (31, 7, 22, 1)$
$596: P_{23878} = (5, 9, 22, 1)$
$597: P_{23930} = (25, 10, 22, 1)$
$598: P_{23944} = (7, 11, 22, 1)$
$599: P_{23983} = (14, 12, 22, 1)$
$600: P_{24029} = (28, 13, 22, 1)$
$601: P_{24054} = (21, 14, 22, 1)$
$602: P_{24079} = (14, 15, 22, 1)$
$603: P_{24128} = (31, 16, 22, 1)$
$604: P_{24150} = (21, 17, 22, 1)$
$605: P_{24173} = (12, 18, 22, 1)$
$606: P_{24210} = (17, 19, 22, 1)$
$607: P_{24230} = (5, 20, 22, 1)$
$608: P_{24258} = (1, 21, 22, 1)$
$609: P_{24307} = (18, 22, 22, 1)$
$610: P_{24365} = (12, 24, 22, 1)$
$611: P_{24385} = (0, 25, 22, 1)$
$612: P_{24418} = (1, 26, 22, 1)$
$613: P_{24457} = (8, 27, 22, 1)$
$614: P_{24510} = (29, 28, 22, 1)$
$615: P_{24535} = (22, 29, 22, 1)$
$616: P_{24562} = (17, 30, 22, 1)$
$617: P_{24584} = (7, 31, 22, 1)$

618 : $P_{24689} = (16, 2, 23, 1)$
619 : $P_{24717} = (12, 3, 23, 1)$
620 : $P_{24749} = (12, 4, 23, 1)$
621 : $P_{24819} = (18, 6, 23, 1)$
622 : $P_{24851} = (18, 7, 23, 1)$
623 : $P_{24881} = (16, 8, 23, 1)$
624 : $P_{24927} = (30, 9, 23, 1)$
625 : $P_{24932} = (3, 10, 23, 1)$
626 : $P_{24971} = (10, 11, 23, 1)$
627 : $P_{25001} = (8, 12, 23, 1)$
628 : $P_{25027} = (2, 13, 23, 1)$
629 : $P_{25060} = (3, 14, 23, 1)$
630 : $P_{25108} = (19, 15, 23, 1)$
631 : $P_{25145} = (24, 16, 23, 1)$
632 : $P_{25163} = (10, 17, 23, 1)$
633 : $P_{25216} = (31, 18, 23, 1)$
634 : $P_{25241} = (24, 19, 23, 1)$
635 : $P_{25270} = (21, 20, 23, 1)$
636 : $P_{25282} = (1, 21, 23, 1)$
637 : $P_{25375} = (30, 23, 23, 1)$
638 : $P_{25377} = (0, 24, 23, 1)$
639 : $P_{25428} = (19, 25, 23, 1)$
640 : $P_{25442} = (1, 26, 23, 1)$
641 : $P_{25504} = (31, 27, 23, 1)$
642 : $P_{25528} = (23, 28, 23, 1)$
643 : $P_{25545} = (8, 29, 23, 1)$
644 : $P_{25571} = (2, 30, 23, 1)$
645 : $P_{25622} = (21, 31, 23, 1)$
646 : $P_{25715} = (18, 2, 24, 1)$
647 : $P_{25730} = (1, 3, 24, 1)$
648 : $P_{25774} = (13, 4, 24, 1)$
649 : $P_{25819} = (26, 5, 24, 1)$
650 : $P_{25833} = (8, 6, 24, 1)$
651 : $P_{25857} = (0, 7, 24, 1)$
652 : $P_{25896} = (7, 8, 24, 1)$
653 : $P_{25939} = (18, 9, 24, 1)$
654 : $P_{25966} = (13, 10, 24, 1)$
655 : $P_{26004} = (19, 11, 24, 1)$
656 : $P_{26031} = (14, 12, 24, 1)$
657 : $P_{26056} = (7, 13, 24, 1)$
658 : $P_{26086} = (5, 14, 24, 1)$
659 : $P_{26127} = (14, 15, 24, 1)$
660 : $P_{26171} = (26, 16, 24, 1)$
661 : $P_{26237} = (28, 18, 24, 1)$
662 : $P_{26245} = (4, 19, 24, 1)$
663 : $P_{26282} = (9, 20, 24, 1)$
664 : $P_{26314} = (9, 21, 24, 1)$
665 : $P_{26347} = (10, 22, 24, 1)$
666 : $P_{26393} = (24, 23, 24, 1)$
667 : $P_{26420} = (19, 24, 24, 1)$
668 : $P_{26475} = (10, 26, 24, 1)$
669 : $P_{26501} = (4, 27, 24, 1)$
670 : $P_{26530} = (1, 28, 24, 1)$
671 : $P_{26589} = (28, 29, 24, 1)$
672 : $P_{26598} = (5, 30, 24, 1)$
673 : $P_{26633} = (8, 31, 24, 1)$
674 : $P_{26731} = (10, 2, 25, 1)$
675 : $P_{26754} = (1, 3, 25, 1)$
676 : $P_{26807} = (22, 4, 25, 1)$
677 : $P_{26827} = (10, 5, 25, 1)$
678 : $P_{26849} = (0, 6, 25, 1)$
679 : $P_{26907} = (26, 7, 25, 1)$
680 : $P_{26925} = (12, 8, 25, 1)$
681 : $P_{26971} = (26, 9, 25, 1)$
682 : $P_{27026} = (17, 11, 25, 1)$
683 : $P_{27069} = (28, 12, 25, 1)$
684 : $P_{27091} = (18, 13, 25, 1)$
685 : $P_{27111} = (6, 14, 25, 1)$
686 : $P_{27158} = (21, 15, 25, 1)$
687 : $P_{27178} = (9, 16, 25, 1)$
688 : $P_{27224} = (23, 17, 25, 1)$
689 : $P_{27254} = (21, 18, 25, 1)$
690 : $P_{27277} = (12, 19, 25, 1)$
691 : $P_{27303} = (6, 20, 25, 1)$
692 : $P_{27347} = (18, 21, 25, 1)$
693 : $P_{27386} = (25, 22, 25, 1)$
694 : $P_{27415} = (22, 23, 25, 1)$
695 : $P_{27466} = (9, 25, 25, 1)$
696 : $P_{27519} = (30, 26, 25, 1)$
697 : $P_{27544} = (23, 27, 25, 1)$
698 : $P_{27554} = (1, 28, 25, 1)$
699 : $P_{27602} = (17, 29, 25, 1)$
700 : $P_{27645} = (28, 30, 25, 1)$
701 : $P_{27679} = (30, 31, 25, 1)$
702 : $P_{27767} = (22, 2, 26, 1)$
703 : $P_{27777} = (0, 3, 26, 1)$
704 : $P_{27834} = (25, 4, 26, 1)$
705 : $P_{27848} = (7, 5, 26, 1)$
706 : $P_{27882} = (9, 6, 26, 1)$
707 : $P_{27910} = (5, 7, 26, 1)$
708 : $P_{27957} = (20, 8, 26, 1)$
709 : $P_{27997} = (28, 9, 26, 1)$
710 : $P_{28008} = (7, 10, 26, 1)$
711 : $P_{28055} = (22, 11, 26, 1)$
712 : $P_{28091} = (26, 12, 26, 1)$
713 : $P_{28121} = (24, 13, 26, 1)$
714 : $P_{28152} = (23, 14, 26, 1)$
715 : $P_{28186} = (25, 15, 26, 1)$
716 : $P_{28213} = (20, 16, 26, 1)$
717 : $P_{28234} = (9, 17, 26, 1)$
718 : $P_{28269} = (12, 18, 26, 1)$
719 : $P_{28319} = (30, 19, 26, 1)$
720 : $P_{28351} = (30, 20, 26, 1)$
721 : $P_{28400} = (15, 22, 26, 1)$
722 : $P_{28432} = (15, 23, 26, 1)$
723 : $P_{28461} = (12, 24, 26, 1)$
724 : $P_{28486} = (5, 25, 26, 1)$
725 : $P_{28517} = (4, 26, 26, 1)$

$726: P_{28601} = (24, 28, 26, 1)$
$727: P_{28632} = (23, 29, 26, 1)$
$728: P_{28645} = (4, 30, 26, 1)$
$729: P_{28701} = (28, 31, 26, 1)$
$730: P_{28769} = (0, 2, 27, 1)$
$731: P_{28813} = (12, 3, 27, 1)$
$732: P_{28845} = (12, 4, 27, 1)$
$733: P_{28886} = (21, 5, 27, 1)$
$734: P_{28904} = (7, 6, 27, 1)$
$735: P_{28946} = (17, 7, 27, 1)$
$736: P_{28970} = (9, 8, 27, 1)$
$737: P_{29007} = (14, 9, 27, 1)$
$738: P_{29029} = (4, 10, 27, 1)$
$739: P_{29061} = (4, 11, 27, 1)$
$740: P_{29107} = (18, 12, 27, 1)$
$741: P_{29148} = (27, 13, 27, 1)$
$742: P_{29163} = (10, 14, 27, 1)$
$743: P_{29192} = (7, 15, 27, 1)$
$744: P_{29240} = (23, 16, 27, 1)$
$745: P_{29267} = (18, 17, 27, 1)$
$746: P_{29298} = (17, 18, 27, 1)$
$747: P_{29334} = (21, 19, 27, 1)$
$748: P_{29360} = (15, 20, 27, 1)$
$749: P_{29400} = (23, 21, 27, 1)$
$750: P_{29433} = (24, 22, 27, 1)$
$751: P_{29450} = (9, 23, 27, 1)$
$752: P_{29481} = (8, 24, 27, 1)$
$753: P_{29515} = (10, 25, 27, 1)$
$754: P_{29584} = (15, 27, 27, 1)$
$755: P_{29609} = (8, 28, 27, 1)$
$756: P_{29647} = (14, 29, 27, 1)$
$757: P_{29689} = (24, 30, 27, 1)$
$758: P_{29810} = (17, 2, 28, 1)$
$759: P_{29880} = (23, 4, 28, 1)$
$760: P_{29897} = (8, 5, 28, 1)$
$761: P_{29928} = (7, 6, 28, 1)$
$762: P_{29954} = (1, 7, 28, 1)$
$763: P_{30011} = (26, 8, 28, 1)$
$764: P_{30025} = (8, 9, 28, 1)$
$765: P_{30075} = (26, 10, 28, 1)$
$766: P_{30111} = (30, 11, 28, 1)$
$767: P_{30114} = (1, 12, 28, 1)$
$768: P_{30160} = (15, 13, 28, 1)$
$769: P_{30204} = (27, 14, 28, 1)$
$770: P_{30216} = (7, 15, 28, 1)$
$771: P_{30268} = (27, 16, 28, 1)$
$772: P_{30292} = (19, 17, 28, 1)$
$773: P_{30319} = (14, 18, 28, 1)$
$774: P_{30341} = (4, 19, 28, 1)$
$775: P_{30388} = (19, 20, 28, 1)$
$776: P_{30429} = (28, 21, 28, 1)$
$777: P_{30463} = (30, 22, 28, 1)$
$778: P_{30465} = (0, 23, 28, 1)$
$779: P_{30528} = (31, 24, 28, 1)$
$780: P_{30560} = (31, 25, 28, 1)$
$781: P_{30578} = (17, 26, 28, 1)$
$782: P_{30597} = (4, 27, 28, 1)$
$783: P_{30639} = (14, 28, 28, 1)$
$784: P_{30712} = (23, 30, 28, 1)$
$785: P_{30736} = (15, 31, 28, 1)$
$786: P_{30848} = (31, 2, 29, 1)$
$787: P_{30870} = (21, 3, 29, 1)$
$788: P_{30896} = (15, 4, 29, 1)$
$789: P_{30920} = (7, 5, 29, 1)$
$790: P_{30948} = (3, 6, 29, 1)$
$791: P_{30978} = (1, 7, 29, 1)$
$792: P_{31031} = (22, 8, 29, 1)$
$793: P_{31065} = (24, 9, 29, 1)$
$794: P_{31080} = (7, 10, 29, 1)$
$795: P_{31115} = (10, 11, 29, 1)$
$796: P_{31138} = (1, 12, 29, 1)$
$797: P_{31188} = (19, 13, 29, 1)$
$798: P_{31206} = (5, 14, 29, 1)$
$799: P_{31257} = (24, 15, 29, 1)$
$800: P_{31286} = (21, 16, 29, 1)$
$801: P_{31307} = (10, 17, 29, 1)$
$802: P_{31332} = (3, 18, 29, 1)$
$803: P_{31422} = (29, 20, 29, 1)$
$804: P_{31445} = (20, 21, 29, 1)$
$805: P_{31457} = (0, 22, 29, 1)$
$806: P_{31506} = (17, 23, 29, 1)$
$807: P_{31536} = (15, 24, 29, 1)$
$808: P_{31575} = (22, 25, 29, 1)$
$809: P_{31604} = (19, 26, 29, 1)$
$810: P_{31637} = (20, 27, 29, 1)$
$811: P_{31712} = (31, 29, 29, 1)$
$812: P_{31718} = (5, 30, 29, 1)$
$813: P_{31762} = (17, 31, 29, 1)$
$814: P_{31865} = (24, 2, 30, 1)$
$815: P_{31881} = (8, 3, 30, 1)$
$816: P_{31906} = (1, 4, 30, 1)$
$817: P_{31955} = (18, 5, 30, 1)$
$818: P_{31972} = (3, 6, 30, 1)$
$819: P_{32014} = (13, 7, 30, 1)$
$820: P_{32061} = (28, 8, 30, 1)$
$821: P_{32066} = (1, 9, 30, 1)$
$822: P_{32126} = (29, 10, 30, 1)$
$823: P_{32155} = (26, 11, 30, 1)$
$824: P_{32185} = (24, 12, 30, 1)$
$825: P_{32222} = (29, 13, 30, 1)$
$826: P_{32255} = (30, 14, 30, 1)$
$827: P_{32268} = (11, 15, 30, 1)$
$828: P_{32300} = (11, 16, 30, 1)$
$829: P_{32349} = (28, 17, 30, 1)$
$830: P_{32356} = (3, 18, 30, 1)$
$831: P_{32385} = (0, 19, 30, 1)$
$832: P_{32468} = (19, 21, 30, 1)$
$833: P_{32494} = (13, 22, 30, 1)$

834 : $P_{32532} = (19, 23, 30, 1)$
835 : $P_{32561} = (16, 24, 30, 1)$
836 : $P_{32595} = (18, 25, 30, 1)$
837 : $P_{32613} = (4, 26, 30, 1)$
838 : $P_{32649} = (8, 27, 30, 1)$
839 : $P_{32699} = (26, 28, 30, 1)$
840 : $P_{32721} = (16, 29, 30, 1)$
841 : $P_{32741} = (4, 30, 30, 1)$
842 : $P_{32876} = (11, 2, 31, 1)$
843 : $P_{32912} = (15, 3, 31, 1)$
844 : $P_{32930} = (1, 4, 31, 1)$
845 : $P_{32976} = (15, 5, 31, 1)$
846 : $P_{33015} = (22, 6, 31, 1)$
847 : $P_{33030} = (5, 7, 31, 1)$
848 : $P_{33064} = (7, 8, 31, 1)$
849 : $P_{33090} = (1, 9, 31, 1)$
850 : $P_{33125} = (4, 10, 31, 1)$
851 : $P_{33157} = (4, 11, 31, 1)$
852 : $P_{33193} = (8, 12, 31, 1)$
853 : $P_{33224} = (7, 13, 31, 1)$
854 : $P_{33255} = (6, 14, 31, 1)$
855 : $P_{33312} = (31, 15, 31, 1)$
856 : $P_{33338} = (25, 16, 31, 1)$
857 : $P_{33365} = (20, 17, 31, 1)$
858 : $P_{33377} = (0, 18, 31, 1)$
859 : $P_{33427} = (18, 19, 31, 1)$
860 : $P_{33447} = (6, 20, 31, 1)$
861 : $P_{33483} = (10, 21, 31, 1)$
862 : $P_{33525} = (20, 22, 31, 1)$
863 : $P_{33548} = (11, 23, 31, 1)$
864 : $P_{33594} = (25, 24, 31, 1)$
865 : $P_{33606} = (5, 25, 31, 1)$
866 : $P_{33655} = (22, 26, 31, 1)$
867 : $P_{33715} = (18, 28, 31, 1)$
868 : $P_{33737} = (8, 29, 31, 1)$
869 : $P_{33803} = (10, 31, 31, 1)$

Line Intersection Graph

	0	1	2	3	4	5	6	7
0	0	1	1	1	0	1	0	0
1	1	0	1	1	1	0	1	0
2	1	1	0	0	0	0	1	1
3	1	1	0	0	0	1	1	0
4	0	1	0	0	0	1	0	1
5	1	0	0	1	1	0	0	1
6	0	1	1	1	0	0	0	1
7	0	0	1	0	1	1	1	0

Neighbor sets in the line intersection graph:
Line 0 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_5
in point	P_0	P_1	P_0	P_5

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_4	ℓ_6
in point	P_0	P_{36}	P_0	P_2	P_{36}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_6	ℓ_7
in point	P_1	P_{36}	P_{36}	P_{68}

Line 3 intersects

Line	ℓ_0	ℓ_1	ℓ_5	ℓ_6
in point	P_0	P_0	P_4	P_{2114}

Line 4 intersects

Line	ℓ_1	ℓ_5	ℓ_7
in point	P_2	P_{2082}	P_{2082}

Line 5 intersects

Line	ℓ_0	ℓ_3	ℓ_4	ℓ_7
in point	P_5	P_4	P_{2082}	P_{2082}

Line 6 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_7
in point	P_{36}	P_{36}	P_{2114}	P_{1091}

Line 7 intersects

Line	ℓ_2	ℓ_4	ℓ_5	ℓ_6
in point	P_{68}	P_{2082}	P_{2082}	P_{1091}

The surface has 1121 points:
Too many to print.