Rank-65613 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

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

(0, 1, 0, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(16) is 303112485

General information

Number of lines	11
Number of points	321
Number of singular points	2
Number of Eckardt points	0
Number of double points	15
Number of single points	148
Number of points off lines	156
Number of Hesse planes	0
Number of axes	0
Type of points on lines	17^{11}
Type of lines on points	5, 4, 2^{15}, 1^{148}, 0^{156}

Singular Points

The surface has 2 singular points:

0 : $P_2 = \mathbf{P}(0,0,1,0) = \mathbf{P}(0,0,1,0)$
1 : $P_{275} = \mathbf{P}(1,0,0,1) = \mathbf{P}(1,0,0,1)$

The 11 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{256} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{256} = \mathbf{Pl}(0,0,1,0,0,0)_2$$

$$\ell_1 = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{array}\right]_{4624} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{array}\right]_{4624} = \mathbf{Pl}(0,1,1,0,0,0)_{18}$$

$$\ell_2 = \left[\begin{array}{cccc} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{array}\right]_{69905} = \left[\begin{array}{cccc} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{array}\right]_{69905} = \mathbf{Pl}(0,1,0,0,0,1)_{4641}$$

$$\ell_3 = \left[\begin{array}{cccc} 0 & 1 & 0 & \delta^5 \\ 0 & 0 & 1 & 0 \end{array}\right]_{70075} = \left[\begin{array}{cccc} 0 & 1 & 0 & 11 \\ 0 & 0 & 1 & 0 \end{array}\right]_{70075} = \mathbf{Pl}(0,11,0,0,0,1)_{4651}$$

$$\ell_4 = \left[\begin{array}{cccc} 0 & 1 & 0 & \delta^{10} \\ 0 & 0 & 1 & 0 \end{array}\right]_{70058} = \left[\begin{array}{cccc} 0 & 1 & 0 & 10 \\ 0 & 0 & 1 & 0 \end{array}\right]_{70058} = \mathbf{Pl}(0,10,0,0,0,1)_{4650}$$

$$\ell_5 = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \end{array}\right]_{289} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \end{array}\right]_{289} = \mathbf{Pl}(1,1,0,0,1,1)_{8961}$$

$$\ell_6 = \left[\begin{array}{cccc} 1 & 0 & \delta^5 & 0 \\ 0 & 1 & 0 & \delta^5 \end{array}\right]_{3179} = \left[\begin{array}{cccc} 1 & 0 & 11 & 0 \\ 0 & 1 & 0 & 11 \end{array}\right]_{3179} = \mathbf{Pl}(10,11,0,0,1,1)_{8970}$$

$$\ell_7 = \left[\begin{array}{cccc} 1 & 0 & \delta^{10} & 0 \\ 0 & 1 & 0 & \delta^{10} \end{array}\right]_{2890} = \left[\begin{array}{cccc} 1 & 0 & 10 & 0 \\ 0 & 1 & 0 & 10 \end{array}\right]_{2890} = \mathbf{Pl}(11,10,0,0,1,1)_{8971}$$

$$\ell_8 = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{array}\right]_{4385} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{array}\right]_{4385} = \mathbf{Pl}(1,1,1,1,1,0)_{1250}$$

$$\ell_9 = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & \delta^5 & \delta^{10} \end{array}\right]_{4539} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & 11 & 10 \end{array}\right]_{4539} = \mathbf{Pl}(11,10,10,11,1,0)_{3645}$$

$$\ell_{10} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & \delta^{10} & \delta^5 \end{array}\right]_{4554} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & 10 & 11 \end{array}\right]_{4554} = \mathbf{Pl}(10,11,11,10,1,0)_{3434}$$

Rank of lines: (256, 4624, 69905, 70075, 70058, 289, 3179, 2890, 4385, 4539, 4554)
Rank of points on Klein quadric: (2, 18, 4641, 4651, 4650, 8961, 8970, 8971, 1250, 3645, 3434)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 15 Double points:
The double points on the surface are:

$P_{20} = (1,0,1,0) = \ell_0 \cap \ell_5$
$P_{29} = (10,0,1,0) = \ell_0 \cap \ell_6$
$P_{30} = (11,0,1,0) = \ell_0 \cap \ell_7$
$P_{290} = (0,1,0,1) = \ell_2 \cap \ell_5$
$P_{546} = (0,1,1,1) = \ell_2 \cap \ell_8$
$P_{434} = (0,10,0,1) = \ell_3 \cap \ell_6$
$P_{3249} = (0,10,11,1) = \ell_3 \cap \ell_{10}$
$P_{450} = (0,11,0,1) = \ell_4 \cap \ell_7$
$P_{3009} = (0,11,10,1) = \ell_4 \cap \ell_9$
$P_{3116} = (11,1,11,1) = \ell_5 \cap \ell_9$
$P_{2859} = (10,1,10,1) = \ell_5 \cap \ell_{10}$
$P_{3004} = (11,10,10,1) = \ell_6 \cap \ell_8$
$P_{699} = (10,10,1,1) = \ell_6 \cap \ell_9$
$P_{3275} = (10,11,11,1) = \ell_7 \cap \ell_8$
$P_{716} = (11,11,1,1) = \ell_7 \cap \ell_{10}$

Single Points

The surface has 148 single points:
The single points on the surface are:

0 : $P_{0} = (1,0,0,0)$ lies on line ℓ_{0}
1 : $P_{4} = (1,1,1,1)$ lies on line ℓ_{5}
2 : $P_{21} = (2,0,1,0)$ lies on line ℓ_{0}
3 : $P_{22} = (3,0,1,0)$ lies on line ℓ_{0}
4 : $P_{23} = (4,0,1,0)$ lies on line ℓ_{0}
5 : $P_{24} = (5,0,1,0)$ lies on line ℓ_{0}
6 : $P_{25} = (6,0,1,0)$ lies on line ℓ_{0}
7 : $P_{26} = (7,0,1,0)$ lies on line ℓ_{0}
8 : $P_{27} = (8,0,1,0)$ lies on line ℓ_{0}
9 : $P_{28} = (9,0,1,0)$ lies on line ℓ_{0}
10 : $P_{31} = (12,0,1,0)$ lies on line ℓ_{0}
11 : $P_{32} = (13,0,1,0)$ lies on line ℓ_{0}
12 : $P_{33} = (14,0,1,0)$ lies on line ℓ_{0}
13 : $P_{34} = (15,0,1,0)$ lies on line ℓ_{0}
14 : $P_{36} = (1,1,1,0)$ lies on line ℓ_{8}
15 : $P_{190} = (11,10,1,0)$ lies on line ℓ_{9}
16 : $P_{205} = (10,11,1,0)$ lies on line ℓ_{10}
17 : $P_{531} = (1,0,1,1)$ lies on line ℓ_{1}
18 : $P_{689} = (0,10,1,1)$ lies on line ℓ_{3}
19 : $P_{705} = (0,11,1,1)$ lies on line ℓ_{4}
20 : $P_{786} = (1,0,2,1)$ lies on line ℓ_{1}
21 : $P_{801} = (0,1,2,1)$ lies on line ℓ_{2}
22 : $P_{803} = (2,1,2,1)$ lies on line ℓ_{5}
23 : $P_{820} = (3,2,2,1)$ lies on line ℓ_{8}
24 : $P_{945} = (0,10,2,1)$ lies on line ℓ_{3}
25 : $P_{958} = (13,10,2,1)$ lies on line ℓ_{6}
26 : $P_{961} = (0,11,2,1)$ lies on line ℓ_{4}
27 : $P_{976} = (15,11,2,1)$ lies on line ℓ_{7}
28 : $P_{1007} = (14,13,2,1)$ lies on line ℓ_{9}
29 : $P_{1037} = (12,15,2,1)$ lies on line ℓ_{10}
30 : $P_{1042} = (1,0,3,1)$ lies on line ℓ_{1}
31 : $P_{1057} = (0,1,3,1)$ lies on line ℓ_{2}
32 : $P_{1060} = (3,1,3,1)$ lies on line ℓ_{5}
33 : $P_{1091} = (2,3,3,1)$ lies on line ℓ_{8}
34 : $P_{1111} = (6,4,3,1)$ lies on line ℓ_{10}
35 : $P_{1158} = (5,7,3,1)$ lies on line ℓ_{9}
36 : $P_{1201} = (0,10,3,1)$ lies on line ℓ_{3}
37 : $P_{1208} = (7,10,3,1)$ lies on line ℓ_{6}
38 : $P_{1217} = (0,11,3,1)$ lies on line ℓ_{4}
39 : $P_{1221} = (4,11,3,1)$ lies on line ℓ_{7}
40 : $P_{1298} = (1,0,4,1)$ lies on line ℓ_{1}
41 : $P_{1313} = (0,1,4,1)$ lies on line ℓ_{2}
42 : $P_{1317} = (4,1,4,1)$ lies on line ℓ_{5}
43 : $P_{1351} = (6,3,4,1)$ lies on line ℓ_{9}
44 : $P_{1366} = (5,4,4,1)$ lies on line ℓ_{8}
45 : $P_{1411} = (2,7,4,1)$ lies on line ℓ_{10}
46 : $P_{1457} = (0,10,4,1)$ lies on line ℓ_{3}
47 : $P_{1460} = (3,10,4,1)$ lies on line ℓ_{6}
48 : $P_{1473} = (0,11,4,1)$ lies on line ℓ_{4}
49 : $P_{1480} = (7,11,4,1)$ lies on line ℓ_{7}
50 : $P_{1554} = (1,0,5,1)$ lies on line ℓ_{1}
51 : $P_{1569} = (0,1,5,1)$ lies on line ℓ_{2}
52 : $P_{1574} = (5,1,5,1)$ lies on line ℓ_{5}
53 : $P_{1637} = (4,5,5,1)$ lies on line ℓ_{8}
54 : $P_{1710} = (13,9,5,1)$ lies on line ℓ_{9}
55 : $P_{1713} = (0,10,5,1)$ lies on line ℓ_{3}
56 : $P_{1722} = (9,10,5,1)$ lies on line ℓ_{6}
57 : $P_{1729} = (0,11,5,1)$ lies on line ℓ_{4}
58 : $P_{1741} = (12,11,5,1)$ lies on line ℓ_{7}
59 : $P_{1753} = (8,12,5,1)$ lies on line ℓ_{10}
60 : $P_{1810} = (1,0,6,1)$ lies on line ℓ_{1}
61 : $P_{1825} = (0,1,6,1)$ lies on line ℓ_{2}
62 : $P_{1831} = (6,1,6,1)$ lies on line ℓ_{5}
63 : $P_{1912} = (7,6,6,1)$ lies on line ℓ_{8}
64 : $P_{1952} = (15,8,6,1)$ lies on line ℓ_{10}
65 : $P_{1969} = (0,10,6,1)$ lies on line ℓ_{3}
66 : $P_{1983} = (14,10,6,1)$ lies on line ℓ_{6}
67 : $P_{1985} = (0,11,6,1)$ lies on line ℓ_{4}
68 : $P_{1993} = (8,11,6,1)$ lies on line ℓ_{7}
69 : $P_{2042} = (9,14,6,1)$ lies on line ℓ_{9}
70 : $P_{2066} = (1,0,7,1)$ lies on line ℓ_{1}
71 : $P_{2081} = (0,1,7,1)$ lies on line ℓ_{2}
72 : $P_{2088} = (7,1,7,1)$ lies on line ℓ_{5}
73 : $P_{2118} = (5,3,7,1)$ lies on line ℓ_{10}
74 : $P_{2131} = (2,4,7,1)$ lies on line ℓ_{9}
75 : $P_{2183} = (6,7,7,1)$ lies on line ℓ_{8}
76 : $P_{2225} = (0,10,7,1)$ lies on line ℓ_{3}
77 : $P_{2229} = (4,10,7,1)$ lies on line ℓ_{6}
78 : $P_{2241} = (0,11,7,1)$ lies on line ℓ_{4}
79 : $P_{2244} = (3,11,7,1)$ lies on line ℓ_{7}
80 : $P_{2322} = (1,0,8,1)$ lies on line ℓ_{1}
81 : $P_{2337} = (0,1,8,1)$ lies on line ℓ_{2}
82 : $P_{2345} = (8,1,8,1)$ lies on line ℓ_{5}
83 : $P_{2432} = (15,6,8,1)$ lies on line ℓ_{9}
84 : $P_{2458} = (9,8,8,1)$ lies on line ℓ_{8}
85 : $P_{2481} = (0,10,8,1)$ lies on line ℓ_{3}
86 : $P_{2487} = (6,10,8,1)$ lies on line ℓ_{6}
87 : $P_{2497} = (0,11,8,1)$ lies on line ℓ_{4}
88 : $P_{2511} = (14,11,8,1)$ lies on line ℓ_{7}
89 : $P_{2552} = (7,14,8,1)$ lies on line ℓ_{10}
90 : $P_{2578} = (1,0,9,1)$ lies on line ℓ_{1}
91 : $P_{2593} = (0,1,9,1)$ lies on line ℓ_{2}
92 : $P_{2602} = (9,1,9,1)$ lies on line ℓ_{5}
93 : $P_{2670} = (13,5,9,1)$ lies on line ℓ_{10}
94 : $P_{2729} = (8,9,9,1)$ lies on line ℓ_{8}
95 : $P_{2737} = (0,10,9,1)$ lies on line ℓ_{3}
96 : $P_{2749} = (12,10,9,1)$ lies on line ℓ_{6}
97 : $P_{2753} = (0,11,9,1)$ lies on line ℓ_{4}
98 : $P_{2758} = (5,11,9,1)$ lies on line ℓ_{7}
99 : $P_{2773} = (4,12,9,1)$ lies on line ℓ_{9}
100 : $P_{2834} = (1,0,10,1)$ lies on line ℓ_{1}
101 : $P_{2849} = (0,1,10,1)$ lies on line ℓ_{2}
102 : $P_{2993} = (0,10,10,1)$ lies on line ℓ_{3}
103 : $P_{3010} = (1,11,10,1)$ lies on line ℓ_{7}
104 : $P_{3090} = (1,0,11,1)$ lies on line ℓ_{1}
105 : $P_{3105} = (0,1,11,1)$ lies on line ℓ_{2}
106 : $P_{3250} = (1,10,11,1)$ lies on line ℓ_{6}
107 : $P_{3265} = (0,11,11,1)$ lies on line ℓ_{4}

108 : $P_{3346} = (1, 0, 12, 1)$ lies on line ℓ_1
109 : $P_{3361} = (0, 1, 12, 1)$ lies on line ℓ_2
110 : $P_{3373} = (12, 1, 12, 1)$ lies on line ℓ_5
111 : $P_{3433} = (8, 5, 12, 1)$ lies on line ℓ_9
112 : $P_{3493} = (4, 9, 12, 1)$ lies on line ℓ_{10}
113 : $P_{3505} = (0, 10, 12, 1)$ lies on line ℓ_3
114 : $P_{3510} = (5, 10, 12, 1)$ lies on line ℓ_6
115 : $P_{3521} = (0, 11, 12, 1)$ lies on line ℓ_4
116 : $P_{3530} = (9, 11, 12, 1)$ lies on line ℓ_7
117 : $P_{3550} = (13, 12, 12, 1)$ lies on line ℓ_8
118 : $P_{3602} = (1, 0, 13, 1)$ lies on line ℓ_1
119 : $P_{3617} = (0, 1, 13, 1)$ lies on line ℓ_2
120 : $P_{3630} = (13, 1, 13, 1)$ lies on line ℓ_5
121 : $P_{3647} = (14, 2, 13, 1)$ lies on line ℓ_{10}
122 : $P_{3761} = (0, 10, 13, 1)$ lies on line ℓ_3
123 : $P_{3776} = (15, 10, 13, 1)$ lies on line ℓ_6
124 : $P_{3777} = (0, 11, 13, 1)$ lies on line ℓ_4
125 : $P_{3779} = (2, 11, 13, 1)$ lies on line ℓ_7
126 : $P_{3821} = (12, 13, 13, 1)$ lies on line ℓ_8
127 : $P_{3844} = (3, 15, 13, 1)$ lies on line ℓ_9
128 : $P_{3858} = (1, 0, 14, 1)$ lies on line ℓ_1
129 : $P_{3873} = (0, 1, 14, 1)$ lies on line ℓ_2
130 : $P_{3887} = (14, 1, 14, 1)$ lies on line ℓ_5
131 : $P_{3962} = (9, 6, 14, 1)$ lies on line ℓ_{10}
132 : $P_{3992} = (7, 8, 14, 1)$ lies on line ℓ_9
133 : $P_{4017} = (0, 10, 14, 1)$ lies on line ℓ_3
134 : $P_{4025} = (8, 10, 14, 1)$ lies on line ℓ_6
135 : $P_{4033} = (0, 11, 14, 1)$ lies on line ℓ_4
136 : $P_{4039} = (6, 11, 14, 1)$ lies on line ℓ_7
137 : $P_{4096} = (15, 14, 14, 1)$ lies on line ℓ_8
138 : $P_{4114} = (1, 0, 15, 1)$ lies on line ℓ_1
139 : $P_{4129} = (0, 1, 15, 1)$ lies on line ℓ_2
140 : $P_{4144} = (15, 1, 15, 1)$ lies on line ℓ_5
141 : $P_{4157} = (12, 2, 15, 1)$ lies on line ℓ_9
142 : $P_{4273} = (0, 10, 15, 1)$ lies on line ℓ_3
143 : $P_{4275} = (2, 10, 15, 1)$ lies on line ℓ_6
144 : $P_{4289} = (0, 11, 15, 1)$ lies on line ℓ_4
145 : $P_{4302} = (13, 11, 15, 1)$ lies on line ℓ_7
146 : $P_{4324} = (3, 13, 15, 1)$ lies on line ℓ_{10}
147 : $P_{4367} = (14, 15, 15, 1)$ lies on line ℓ_8

The single points on the surface are:

Points on surface but on no line

The surface has 156 points not on any line:
The points on the surface but not on lines are:

0 : $P_{55} = (4, 2, 1, 0)$
1 : $P_{72} = (5, 3, 1, 0)$
2 : $P_{92} = (9, 4, 1, 0)$
3 : $P_{107} = (8, 5, 1, 0)$
4 : $P_{128} = (13, 6, 1, 0)$
5 : $P_{143} = (12, 7, 1, 0)$
6 : $P_{162} = (15, 8, 1, 0)$
7 : $P_{177} = (14, 9, 1, 0)$
8 : $P_{217} = (6, 12, 1, 0)$
9 : $P_{234} = (7, 13, 1, 0)$
10 : $P_{245} = (2, 14, 1, 0)$
11 : $P_{262} = (3, 15, 1, 0)$
12 : $P_{310} = (4, 2, 0, 1)$
13 : $P_{331} = (9, 3, 0, 1)$
14 : $P_{347} = (9, 4, 0, 1)$
15 : $P_{368} = (14, 5, 0, 1)$
16 : $P_{372} = (2, 6, 0, 1)$
17 : $P_{395} = (9, 7, 0, 1)$
18 : $P_{404} = (2, 8, 0, 1)$
19 : $P_{432} = (14, 9, 0, 1)$
20 : $P_{480} = (14, 12, 0, 1)$
21 : $P_{486} = (4, 13, 0, 1)$
22 : $P_{500} = (2, 14, 0, 1)$
23 : $P_{518} = (4, 15, 0, 1)$
24 : $P_{585} = (8, 3, 1, 1)$
25 : $P_{588} = (11, 3, 1, 1)$
26 : $P_{619} = (10, 5, 1, 1)$
27 : $P_{624} = (15, 5, 1, 1)$
28 : $P_{660} = (3, 8, 1, 1)$
29 : $P_{668} = (11, 8, 1, 1)$
30 : $P_{774} = (5, 15, 1, 1)$
31 : $P_{779} = (10, 15, 1, 1)$
32 : $P_{824} = (7, 2, 2, 1)$
33 : $P_{868} = (3, 5, 2, 1)$
34 : $P_{874} = (9, 5, 2, 1)$
35 : $P_{900} = (3, 7, 2, 1)$
36 : $P_{910} = (13, 7, 2, 1)$
37 : $P_{1006} = (13, 13, 2, 1)$
38 : $P_{1010} = (1, 14, 2, 1)$
39 : $P_{1013} = (4, 14, 2, 1)$
40 : $P_{1036} = (11, 15, 2, 1)$
41 : $P_{1096} = (7, 3, 3, 1)$
42 : $P_{1115} = (10, 4, 3, 1)$
43 : $P_{1165} = (12, 7, 3, 1)$
44 : $P_{1190} = (5, 9, 3, 1)$
45 : $P_{1192} = (7, 9, 3, 1)$

46 : $P_{1270} = (5, 14, 3, 1)$
47 : $P_{1279} = (14, 14, 3, 1)$
48 : $P_{1282} = (1, 15, 3, 1)$
49 : $P_{1290} = (9, 15, 3, 1)$
50 : $P_{1330} = (1, 2, 4, 1)$
51 : $P_{1338} = (9, 2, 4, 1)$
52 : $P_{1355} = (10, 3, 4, 1)$
53 : $P_{1373} = (12, 4, 4, 1)$
54 : $P_{1416} = (7, 7, 4, 1)$
55 : $P_{1430} = (5, 8, 4, 1)$
56 : $P_{1439} = (14, 8, 4, 1)$
57 : $P_{1494} = (5, 12, 4, 1)$
58 : $P_{1496} = (7, 12, 4, 1)$
59 : $P_{1587} = (2, 2, 5, 1)$
60 : $P_{1593} = (8, 2, 5, 1)$
61 : $P_{1602} = (1, 3, 5, 1)$
62 : $P_{1615} = (14, 3, 5, 1)$
63 : $P_{1645} = (12, 5, 5, 1)$
64 : $P_{1708} = (11, 9, 5, 1)$
65 : $P_{1751} = (6, 12, 5, 1)$
66 : $P_{1785} = (8, 14, 5, 1)$
67 : $P_{1789} = (12, 14, 5, 1)$
68 : $P_{1915} = (10, 6, 6, 1)$
69 : $P_{1925} = (4, 7, 6, 1)$
70 : $P_{1936} = (15, 7, 6, 1)$
71 : $P_{1950} = (13, 8, 6, 1)$
72 : $P_{2002} = (1, 12, 6, 1)$
73 : $P_{2003} = (2, 12, 6, 1)$
74 : $P_{2039} = (6, 14, 6, 1)$
75 : $P_{2055} = (6, 15, 6, 1)$
76 : $P_{2064} = (15, 15, 6, 1)$
77 : $P_{2125} = (12, 3, 7, 1)$
78 : $P_{2136} = (7, 4, 7, 1)$
79 : $P_{2150} = (5, 5, 7, 1)$
80 : $P_{2152} = (7, 5, 7, 1)$
81 : $P_{2166} = (5, 6, 7, 1)$
82 : $P_{2175} = (14, 6, 7, 1)$
83 : $P_{2187} = (10, 7, 7, 1)$
84 : $P_{2274} = (1, 13, 7, 1)$
85 : $P_{2282} = (9, 13, 7, 1)$
86 : $P_{2359} = (6, 2, 8, 1)$
87 : $P_{2368} = (15, 2, 8, 1)$
88 : $P_{2389} = (4, 4, 8, 1)$
89 : $P_{2400} = (15, 4, 8, 1)$
90 : $P_{2402} = (1, 5, 8, 1)$
91 : $P_{2403} = (2, 5, 8, 1)$
92 : $P_{2430} = (13, 6, 8, 1)$
93 : $P_{2455} = (6, 8, 8, 1)$
94 : $P_{2555} = (10, 14, 8, 1)$
95 : $P_{2642} = (1, 4, 9, 1)$
96 : $P_{2655} = (14, 4, 9, 1)$
97 : $P_{2668} = (11, 5, 9, 1)$
98 : $P_{2681} = (8, 6, 9, 1)$
99 : $P_{2685} = (12, 6, 9, 1)$
100 : $P_{2727} = (6, 9, 9, 1)$
101 : $P_{2781} = (12, 12, 9, 1)$
102 : $P_{2819} = (2, 15, 9, 1)$
103 : $P_{2825} = (8, 15, 9, 1)$
104 : $P_{2905} = (8, 4, 10, 1)$
105 : $P_{2908} = (11, 4, 10, 1)$
106 : $P_{3035} = (10, 12, 10, 1)$
107 : $P_{3040} = (15, 12, 10, 1)$
108 : $P_{3046} = (5, 13, 10, 1)$
109 : $P_{3051} = (10, 13, 10, 1)$
110 : $P_{3060} = (3, 14, 10, 1)$
111 : $P_{3068} = (11, 14, 10, 1)$
112 : $P_{3126} = (5, 2, 11, 1)$
113 : $P_{3131} = (10, 2, 11, 1)$
114 : $P_{3188} = (3, 6, 11, 1)$
115 : $P_{3196} = (11, 6, 11, 1)$
116 : $P_{3209} = (8, 7, 11, 1)$
117 : $P_{3212} = (11, 7, 11, 1)$
118 : $P_{3243} = (10, 9, 11, 1)$
119 : $P_{3248} = (15, 9, 11, 1)$
120 : $P_{3431} = (6, 5, 12, 1)$
121 : $P_{3458} = (1, 7, 12, 1)$
122 : $P_{3471} = (14, 7, 12, 1)$
123 : $P_{3481} = (8, 8, 12, 1)$
124 : $P_{3485} = (12, 8, 12, 1)$
125 : $P_{3501} = (12, 9, 12, 1)$
126 : $P_{3548} = (11, 12, 12, 1)$
127 : $P_{3555} = (2, 13, 12, 1)$
128 : $P_{3561} = (8, 13, 12, 1)$
129 : $P_{3646} = (13, 2, 13, 1)$
130 : $P_{3652} = (3, 3, 13, 1)$
131 : $P_{3662} = (13, 3, 13, 1)$
132 : $P_{3698} = (1, 6, 13, 1)$
133 : $P_{3701} = (4, 6, 13, 1)$
134 : $P_{3796} = (3, 12, 13, 1)$
135 : $P_{3802} = (9, 12, 13, 1)$
136 : $P_{3820} = (11, 13, 13, 1)$
137 : $P_{3848} = (7, 15, 13, 1)$
138 : $P_{3909} = (4, 3, 14, 1)$
139 : $P_{3920} = (15, 3, 14, 1)$
140 : $P_{3959} = (6, 6, 14, 1)$
141 : $P_{3995} = (10, 8, 14, 1)$
142 : $P_{4002} = (1, 9, 14, 1)$
143 : $P_{4003} = (2, 9, 14, 1)$
144 : $P_{4071} = (6, 13, 14, 1)$
145 : $P_{4080} = (15, 13, 14, 1)$
146 : $P_{4094} = (13, 14, 14, 1)$
147 : $P_{4156} = (11, 2, 15, 1)$
148 : $P_{4180} = (3, 4, 15, 1)$
149 : $P_{4190} = (13, 4, 15, 1)$
150 : $P_{4242} = (1, 8, 15, 1)$
151 : $P_{4245} = (4, 8, 15, 1)$
152 : $P_{4260} = (3, 9, 15, 1)$
153 : $P_{4266} = (9, 9, 15, 1)$

154 : $P_{4328} = (7, 13, 15, 1)$
155 : $P_{4366} = (13, 15, 15, 1)$

Line Intersection Graph

	0	1	2	3	4	5	6	7	8	9	10
0	0	1	1	1	1	1	1	1	0	0	0
1	1	0	1	1	1	0	0	0	1	1	1
2	1	1	0	1	1	1	0	0	1	0	0
3	1	1	1	0	1	0	1	0	0	0	1
4	1	1	1	1	0	0	0	1	0	1	0
5	1	0	1	0	0	0	0	0	0	1	1
6	1	0	0	1	0	0	0	0	1	1	0
7	1	0	0	0	1	0	0	0	1	0	1
8	0	1	1	0	0	0	1	1	0	1	1
9	0	1	0	0	1	1	1	0	1	0	1
10	0	1	0	1	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_4	ℓ_5	ℓ_6	ℓ_7
in point	P_2	P_2	P_2	P_2	P_{20}	P_{29}	P_{30}

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_4	ℓ_8	ℓ_9	ℓ_{10}
in point	P_2	P_2	P_2	P_2	P_{275}	P_{275}	P_{275}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_8
in point	P_2	P_2	P_2	P_2	P_{290}	P_{546}

Line 3 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_4	ℓ_6	ℓ_{10}
in point	P_2	P_2	P_2	P_2	P_{434}	P_{3249}

Line 4 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_7	ℓ_9
in point	P_2	P_2	P_2	P_2	P_{450}	P_{3009}

Line 5 intersects

Line	ℓ_0	ℓ_2	ℓ_9	ℓ_{10}
in point	P_{20}	P_{290}	P_{3116}	P_{2859}

Line 6 intersects

Line	ℓ_0	ℓ_3	ℓ_8	ℓ_9
in point	P_{29}	P_{434}	P_{3004}	P_{699}

Line 7 intersects

Line	ℓ_0	ℓ_4	ℓ_8	ℓ_{10}
in point	P_{30}	P_{450}	P_{3275}	P_{716}

Line 8 intersects

Line	ℓ_1	ℓ_2	ℓ_6	ℓ_7	ℓ_9	ℓ_{10}
in point	P_{275}	P_{546}	P_{3004}	P_{3275}	P_{275}	P_{275}

Line 9 intersects

Line	ℓ_1	ℓ_4	ℓ_5	ℓ_6	ℓ_8	ℓ_{10}
in point	P_{275}	P_{3009}	P_{3116}	P_{699}	P_{275}	P_{275}

Line 10 intersects

Line	ℓ_1	ℓ_3	ℓ_5	ℓ_7	ℓ_8	ℓ_9
in point	P_{275}	P_{3249}	P_{2859}	P_{716}	P_{275}	P_{275}

The surface has 321 points:
The points on the surface are:

0 : $P_0 = (1,0,0,0)$
1 : $P_2 = (0,0,1,0)$
2 : $P_4 = (1,1,1,1)$
3 : $P_{20} = (1,0,1,0)$
4 : $P_{21} = (2,0,1,0)$
5 : $P_{22} = (3,0,1,0)$
6 : $P_{23} = (4,0,1,0)$
7 : $P_{24} = (5,0,1,0)$
8 : $P_{25} = (6,0,1,0)$
9 : $P_{26} = (7,0,1,0)$
10 : $P_{27} = (8,0,1,0)$
11 : $P_{28} = (9,0,1,0)$
12 : $P_{29} = (10,0,1,0)$
13 : $P_{30} = (11,0,1,0)$
14 : $P_{31} = (12,0,1,0)$
15 : $P_{32} = (13,0,1,0)$
16 : $P_{33} = (14,0,1,0)$
17 : $P_{34} = (15,0,1,0)$
18 : $P_{36} = (1,1,1,0)$
19 : $P_{55} = (4,2,1,0)$
20 : $P_{72} = (5,3,1,0)$
21 : $P_{92} = (9,4,1,0)$
22 : $P_{107} = (8,5,1,0)$
23 : $P_{128} = (13,6,1,0)$
24 : $P_{143} = (12,7,1,0)$
25 : $P_{162} = (15,8,1,0)$
26 : $P_{177} = (14,9,1,0)$
27 : $P_{190} = (11,10,1,0)$
28 : $P_{205} = (10,11,1,0)$
29 : $P_{217} = (6,12,1,0)$
30 : $P_{234} = (7,13,1,0)$
31 : $P_{245} = (2,14,1,0)$
32 : $P_{262} = (3,15,1,0)$
33 : $P_{275} = (1,0,0,1)$
34 : $P_{290} = (0,1,0,1)$
35 : $P_{310} = (4,2,0,1)$
36 : $P_{331} = (9,3,0,1)$
37 : $P_{347} = (9,4,0,1)$
38 : $P_{368} = (14,5,0,1)$
39 : $P_{372} = (2,6,0,1)$
40 : $P_{395} = (9,7,0,1)$
41 : $P_{404} = (2,8,0,1)$
42 : $P_{432} = (14,9,0,1)$
43 : $P_{434} = (0,10,0,1)$
44 : $P_{450} = (0,11,0,1)$
45 : $P_{480} = (14,12,0,1)$
46 : $P_{486} = (4,13,0,1)$
47 : $P_{500} = (2,14,0,1)$
48 : $P_{518} = (4,15,0,1)$
49 : $P_{531} = (1,0,1,1)$
50 : $P_{546} = (0,1,1,1)$
51 : $P_{585} = (8,3,1,1)$
52 : $P_{588} = (11,3,1,1)$
53 : $P_{619} = (10,5,1,1)$
54 : $P_{624} = (15,5,1,1)$
55 : $P_{660} = (3,8,1,1)$
56 : $P_{668} = (11,8,1,1)$
57 : $P_{689} = (0,10,1,1)$
58 : $P_{699} = (10,10,1,1)$
59 : $P_{705} = (0,11,1,1)$
60 : $P_{716} = (11,11,1,1)$
61 : $P_{774} = (5,15,1,1)$
62 : $P_{779} = (10,15,1,1)$
63 : $P_{786} = (1,0,2,1)$
64 : $P_{801} = (0,1,2,1)$
65 : $P_{803} = (2,1,2,1)$
66 : $P_{820} = (3,2,2,1)$
67 : $P_{824} = (7,2,2,1)$
68 : $P_{868} = (3,5,2,1)$
69 : $P_{874} = (9,5,2,1)$
70 : $P_{900} = (3,7,2,1)$
71 : $P_{910} = (13,7,2,1)$
72 : $P_{945} = (0,10,2,1)$
73 : $P_{958} = (13,10,2,1)$
74 : $P_{961} = (0,11,2,1)$
75 : $P_{976} = (15,11,2,1)$
76 : $P_{1006} = (13,13,2,1)$
77 : $P_{1007} = (14,13,2,1)$
78 : $P_{1010} = (1,14,2,1)$
79 : $P_{1013} = (4,14,2,1)$
80 : $P_{1036} = (11,15,2,1)$
81 : $P_{1037} = (12,15,2,1)$
82 : $P_{1042} = (1,0,3,1)$
83 : $P_{1057} = (0,1,3,1)$
84 : $P_{1060} = (3,1,3,1)$
85 : $P_{1091} = (2,3,3,1)$
86 : $P_{1096} = (7,3,3,1)$
87 : $P_{1111} = (6,4,3,1)$
88 : $P_{1115} = (10,4,3,1)$
89 : $P_{1158} = (5,7,3,1)$
90 : $P_{1165} = (12,7,3,1)$
91 : $P_{1190} = (5,9,3,1)$
92 : $P_{1192} = (7,9,3,1)$
93 : $P_{1201} = (0,10,3,1)$
94 : $P_{1208} = (7,10,3,1)$
95 : $P_{1217} = (0,11,3,1)$
96 : $P_{1221} = (4,11,3,1)$
97 : $P_{1270} = (5,14,3,1)$
98 : $P_{1279} = (14,14,3,1)$
99 : $P_{1282} = (1,15,3,1)$
100 : $P_{1290} = (9,15,3,1)$
101 : $P_{1298} = (1,0,4,1)$
102 : $P_{1313} = (0,1,4,1)$
103 : $P_{1317} = (4,1,4,1)$
104 : $P_{1330} = (1,2,4,1)$
105 : $P_{1338} = (9,2,4,1)$
106 : $P_{1351} = (6,3,4,1)$
107 : $P_{1355} = (10,3,4,1)$
108 : $P_{1366} = (5,4,4,1)$
109 : $P_{1373} = (12,4,4,1)$
110 : $P_{1411} = (2,7,4,1)$
111 : $P_{1416} = (7,7,4,1)$
112 : $P_{1430} = (5,8,4,1)$
113 : $P_{1439} = (14,8,4,1)$
114 : $P_{1457} = (0,10,4,1)$
115 : $P_{1460} = (3,10,4,1)$
116 : $P_{1473} = (0,11,4,1)$
117 : $P_{1480} = (7,11,4,1)$
118 : $P_{1494} = (5,12,4,1)$
119 : $P_{1496} = (7,12,4,1)$
120 : $P_{1554} = (1,0,5,1)$
121 : $P_{1569} = (0,1,5,1)$
122 : $P_{1574} = (5,1,5,1)$
123 : $P_{1587} = (2,2,5,1)$
124 : $P_{1593} = (8,2,5,1)$
125 : $P_{1602} = (1,3,5,1)$
126 : $P_{1615} = (14,3,5,1)$
127 : $P_{1637} = (4,5,5,1)$
128 : $P_{1645} = (12,5,5,1)$
129 : $P_{1708} = (11,9,5,1)$
130 : $P_{1710} = (13,9,5,1)$
131 : $P_{1713} = (0,10,5,1)$
132 : $P_{1722} = (9,10,5,1)$
133 : $P_{1729} = (0,11,5,1)$
134 : $P_{1741} = (12,11,5,1)$
135 : $P_{1751} = (6,12,5,1)$
136 : $P_{1753} = (8,12,5,1)$
137 : $P_{1785} = (8,14,5,1)$
138 : $P_{1789} = (12,14,5,1)$
139 : $P_{1810} = (1,0,6,1)$
140 : $P_{1825} = (0,1,6,1)$
141 : $P_{1831} = (6,1,6,1)$
142 : $P_{1912} = (7,6,6,1)$
143 : $P_{1915} = (10,6,6,1)$
144 : $P_{1925} = (4,7,6,1)$
145 : $P_{1936} = (15,7,6,1)$
146 : $P_{1950} = (13,8,6,1)$
147 : $P_{1952} = (15,8,6,1)$
148 : $P_{1969} = (0,10,6,1)$
149 : $P_{1983} = (14,10,6,1)$

$150: P_{1985} = (0, 11, 6, 1)$
$151: P_{1993} = (8, 11, 6, 1)$
$152: P_{2002} = (1, 12, 6, 1)$
$153: P_{2003} = (2, 12, 6, 1)$
$154: P_{2039} = (6, 14, 6, 1)$
$155: P_{2042} = (9, 14, 6, 1)$
$156: P_{2055} = (6, 15, 6, 1)$
$157: P_{2064} = (15, 15, 6, 1)$
$158: P_{2066} = (1, 0, 7, 1)$
$159: P_{2081} = (0, 1, 7, 1)$
$160: P_{2088} = (7, 1, 7, 1)$
$161: P_{2118} = (5, 3, 7, 1)$
$162: P_{2125} = (12, 3, 7, 1)$
$163: P_{2131} = (2, 4, 7, 1)$
$164: P_{2136} = (7, 4, 7, 1)$
$165: P_{2150} = (5, 5, 7, 1)$
$166: P_{2152} = (7, 5, 7, 1)$
$167: P_{2166} = (5, 6, 7, 1)$
$168: P_{2175} = (14, 6, 7, 1)$
$169: P_{2183} = (6, 7, 7, 1)$
$170: P_{2187} = (10, 7, 7, 1)$
$171: P_{2225} = (0, 10, 7, 1)$
$172: P_{2229} = (4, 10, 7, 1)$
$173: P_{2241} = (0, 11, 7, 1)$
$174: P_{2244} = (3, 11, 7, 1)$
$175: P_{2274} = (1, 13, 7, 1)$
$176: P_{2282} = (9, 13, 7, 1)$
$177: P_{2322} = (1, 0, 8, 1)$
$178: P_{2337} = (0, 1, 8, 1)$
$179: P_{2345} = (8, 1, 8, 1)$
$180: P_{2359} = (6, 2, 8, 1)$
$181: P_{2368} = (15, 2, 8, 1)$
$182: P_{2389} = (4, 4, 8, 1)$
$183: P_{2400} = (15, 4, 8, 1)$
$184: P_{2402} = (1, 5, 8, 1)$
$185: P_{2403} = (2, 5, 8, 1)$
$186: P_{2430} = (13, 6, 8, 1)$
$187: P_{2432} = (15, 6, 8, 1)$
$188: P_{2455} = (6, 8, 8, 1)$
$189: P_{2458} = (9, 8, 8, 1)$
$190: P_{2481} = (0, 10, 8, 1)$
$191: P_{2487} = (6, 10, 8, 1)$
$192: P_{2497} = (0, 11, 8, 1)$
$193: P_{2511} = (14, 11, 8, 1)$
$194: P_{2552} = (7, 14, 8, 1)$
$195: P_{2555} = (10, 14, 8, 1)$
$196: P_{2578} = (1, 0, 9, 1)$
$197: P_{2593} = (0, 1, 9, 1)$
$198: P_{2602} = (9, 1, 9, 1)$
$199: P_{2642} = (1, 4, 9, 1)$
$200: P_{2655} = (14, 4, 9, 1)$
$201: P_{2668} = (11, 5, 9, 1)$
$202: P_{2670} = (13, 5, 9, 1)$
$203: P_{2681} = (8, 6, 9, 1)$
$204: P_{2685} = (12, 6, 9, 1)$
$205: P_{2727} = (6, 9, 9, 1)$
$206: P_{2729} = (8, 9, 9, 1)$
$207: P_{2737} = (0, 10, 9, 1)$
$208: P_{2749} = (12, 10, 9, 1)$
$209: P_{2753} = (0, 11, 9, 1)$
$210: P_{2758} = (5, 11, 9, 1)$
$211: P_{2773} = (4, 12, 9, 1)$
$212: P_{2781} = (12, 12, 9, 1)$
$213: P_{2819} = (2, 15, 9, 1)$
$214: P_{2825} = (8, 15, 9, 1)$
$215: P_{2834} = (1, 0, 10, 1)$
$216: P_{2849} = (0, 1, 10, 1)$
$217: P_{2859} = (10, 1, 10, 1)$
$218: P_{2905} = (8, 4, 10, 1)$
$219: P_{2908} = (11, 4, 10, 1)$
$220: P_{2993} = (0, 10, 10, 1)$
$221: P_{3004} = (11, 10, 10, 1)$
$222: P_{3009} = (0, 11, 10, 1)$
$223: P_{3010} = (1, 11, 10, 1)$
$224: P_{3035} = (10, 12, 10, 1)$
$225: P_{3040} = (15, 12, 10, 1)$
$226: P_{3046} = (5, 13, 10, 1)$
$227: P_{3051} = (10, 13, 10, 1)$
$228: P_{3060} = (3, 14, 10, 1)$
$229: P_{3068} = (11, 14, 10, 1)$
$230: P_{3090} = (1, 0, 11, 1)$
$231: P_{3105} = (0, 1, 11, 1)$
$232: P_{3116} = (11, 1, 11, 1)$
$233: P_{3126} = (5, 2, 11, 1)$
$234: P_{3131} = (10, 2, 11, 1)$
$235: P_{3188} = (3, 6, 11, 1)$
$236: P_{3196} = (11, 6, 11, 1)$
$237: P_{3209} = (8, 7, 11, 1)$
$238: P_{3212} = (11, 7, 11, 1)$
$239: P_{3243} = (10, 9, 11, 1)$
$240: P_{3248} = (15, 9, 11, 1)$
$241: P_{3249} = (0, 10, 11, 1)$
$242: P_{3250} = (1, 10, 11, 1)$
$243: P_{3265} = (0, 11, 11, 1)$
$244: P_{3275} = (10, 11, 11, 1)$
$245: P_{3346} = (1, 0, 12, 1)$
$246: P_{3361} = (0, 1, 12, 1)$
$247: P_{3373} = (12, 1, 12, 1)$
$248: P_{3431} = (6, 5, 12, 1)$
$249: P_{3433} = (8, 5, 12, 1)$
$250: P_{3458} = (1, 7, 12, 1)$
$251: P_{3471} = (14, 7, 12, 1)$
$252: P_{3481} = (8, 8, 12, 1)$
$253: P_{3485} = (12, 8, 12, 1)$
$254: P_{3493} = (4, 9, 12, 1)$
$255: P_{3501} = (12, 9, 12, 1)$
$256: P_{3505} = (0, 10, 12, 1)$
$257: P_{3510} = (5, 10, 12, 1)$
$258: P_{3521} = (0, 11, 12, 1)$
$259: P_{3530} = (9, 11, 12, 1)$
$260: P_{3548} = (11, 12, 12, 1)$
$261: P_{3550} = (13, 12, 12, 1)$
$262: P_{3555} = (2, 13, 12, 1)$
$263: P_{3561} = (8, 13, 12, 1)$
$264: P_{3602} = (1, 0, 13, 1)$
$265: P_{3617} = (0, 1, 13, 1)$
$266: P_{3630} = (13, 1, 13, 1)$
$267: P_{3646} = (13, 2, 13, 1)$
$268: P_{3647} = (14, 2, 13, 1)$
$269: P_{3652} = (3, 3, 13, 1)$
$270: P_{3662} = (13, 3, 13, 1)$
$271: P_{3698} = (1, 6, 13, 1)$
$272: P_{3701} = (4, 6, 13, 1)$
$273: P_{3761} = (0, 10, 13, 1)$
$274: P_{3776} = (15, 10, 13, 1)$
$275: P_{3777} = (0, 11, 13, 1)$
$276: P_{3779} = (2, 11, 13, 1)$
$277: P_{3796} = (3, 12, 13, 1)$
$278: P_{3802} = (9, 12, 13, 1)$
$279: P_{3820} = (11, 13, 13, 1)$
$280: P_{3821} = (12, 13, 13, 1)$
$281: P_{3844} = (3, 15, 13, 1)$
$282: P_{3848} = (7, 15, 13, 1)$
$283: P_{3858} = (1, 0, 14, 1)$
$284: P_{3873} = (0, 1, 14, 1)$
$285: P_{3887} = (14, 1, 14, 1)$
$286: P_{3909} = (4, 3, 14, 1)$
$287: P_{3920} = (15, 3, 14, 1)$
$288: P_{3959} = (6, 6, 14, 1)$
$289: P_{3962} = (9, 6, 14, 1)$
$290: P_{3992} = (7, 8, 14, 1)$
$291: P_{3995} = (10, 8, 14, 1)$
$292: P_{4002} = (1, 9, 14, 1)$
$293: P_{4003} = (2, 9, 14, 1)$
$294: P_{4017} = (0, 10, 14, 1)$
$295: P_{4025} = (8, 10, 14, 1)$
$296: P_{4033} = (0, 11, 14, 1)$
$297: P_{4039} = (6, 11, 14, 1)$
$298: P_{4071} = (6, 13, 14, 1)$
$299: P_{4080} = (15, 13, 14, 1)$
$300: P_{4094} = (13, 14, 14, 1)$
$301: P_{4096} = (15, 14, 14, 1)$
$302: P_{4114} = (1, 0, 15, 1)$
$303: P_{4129} = (0, 1, 15, 1)$
$304: P_{4144} = (15, 1, 15, 1)$
$305: P_{4156} = (11, 2, 15, 1)$
$306: P_{4157} = (12, 2, 15, 1)$
$307: P_{4180} = (3, 4, 15, 1)$
$308: P_{4190} = (13, 4, 15, 1)$
$309: P_{4242} = (1, 8, 15, 1)$
$310: P_{4245} = (4, 8, 15, 1)$
$311: P_{4260} = (3, 9, 15, 1)$

312 : $P_{4266} = (9, 9, 15, 1)$
313 : $P_{4273} = (0, 10, 15, 1)$
314 : $P_{4275} = (2, 10, 15, 1)$
315 : $P_{4289} = (0, 11, 15, 1)$
316 : $P_{4302} = (13, 11, 15, 1)$
317 : $P_{4324} = (3, 13, 15, 1)$
318 : $P_{4328} = (7, 13, 15, 1)$
319 : $P_{4366} = (13, 15, 15, 1)$
320 : $P_{4367} = (14, 15, 15, 1)$