Rank-192 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

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

(0, 0, 1, 0, 1, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)
The point rank of the equation over GF(16) is 19010078

General information

Number of lines	25
Number of points	401
Number of singular points	1
Number of Eckardt points	0
Number of double points	0
Number of single points	400
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	17^{25}
Type of lines on points	25, 1^{400}

Singular Points

The surface has 1 singular points:

$0: P_3 = \mathbf{P}(0,0,0,1) = \mathbf{P}(0,0,0,1)$

The 25 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{272} = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{272} = \mathbf{Pl}(0,0,0,0,1,0)_{289}$$

$$\ell_1 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69904} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69904} = \mathbf{Pl}(0,0,0,1,0,0)_{33}$$

$$\ell_2 = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{545} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{545} = \mathbf{Pl}(0,0,0,1,1,0)_{785}$$

$$\ell_3 = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4640} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4640} = \mathbf{Pl}(0,1,0,0,1,0)_{305}$$

$$\ell_4 = \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4913} = \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4913} = \mathbf{Pl}(0,1,0,1,1,0)_{801}$$

$$\ell_5 = \begin{bmatrix} 1 & \delta^3 & \delta^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{67976} = \begin{bmatrix} 1 & 8 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{67976} = \mathbf{Pl}(0,15,0,8,1,0)_{1032}$$

$$\ell_6 = \begin{bmatrix} 1 & \delta^7 & \delta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{45863} = \begin{bmatrix} 1 & 7 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{45863} = \mathbf{Pl}(0,10,0,7,1,0)_{996}$$

$$\ell_7 = \begin{bmatrix} 1 & \delta^6 & \delta^{12} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17471} = \begin{bmatrix} 1 & 15 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17471} = \mathbf{Pl}(0,3,0,15,1,0)_{1237}$$

$$\ell_8 = \begin{bmatrix} 1 & \delta^{14} & \delta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{51596} = \begin{bmatrix} 1 & 12 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{51596} = \mathbf{Pl}(0,11,0,12,1,0)_{1152}$$

$$\ell_9 = \begin{bmatrix} 1 & \delta^4 & \delta^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{68249} = \begin{bmatrix} 1 & 9 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{68249} = \mathbf{Pl}(0,15,0,9,1,0)_{1063}$$

$$\ell_{10} = \begin{bmatrix} 1 & \delta^{14} & \delta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12284} = \begin{bmatrix} 1 & 12 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12284} = \mathbf{Pl}(0,2,0,12,1,0)_{1143}$$

$$\ell_{11} = \begin{bmatrix} 1 & \delta^{11} & \delta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{43133} = \begin{bmatrix} 1 & 13 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{43133} = \mathbf{Pl}(0,9,0,13,1,0)_{1181}$$

$$\ell_{12} = \begin{bmatrix} 1 & \delta & \delta^9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{22658} = \begin{bmatrix} 1 & 2 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{22658} = \mathbf{Pl}(0,5,0,2,1,0)_{836}$$

$$\ell_{13} = \begin{bmatrix} 1 & \delta^{13} & \delta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{45590} = \begin{bmatrix} 1 & 6 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{45590} = \mathbf{Pl}(0,10,0,6,1,0)_{965}$$

$$\ell_{14} = \begin{bmatrix} 1 & \delta^{12} & \delta^9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{22931} = \begin{bmatrix} 1 & 3 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{22931} = \mathbf{Pl}(0,5,0,3,1,0)_{867}$$

$$\ell_{15} = \begin{bmatrix} 1 & \delta^{11} & \delta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12557} = \begin{bmatrix} 1 & 13 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12557} = \mathbf{Pl}(0,2,0,13,1,0)_{1174}$$

$$\ell_{16} = \begin{bmatrix} 1 & \delta^{14} & \delta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{42860} = \begin{bmatrix} 1 & 12 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{42860} = \mathbf{Pl}(0,9,0,12,1,0)_{1150}$$

$$\ell_{17} = \begin{bmatrix} 1 & \delta^7 & \delta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{19655} = \begin{bmatrix} 1 & 7 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{19655} = \mathbf{Pl}(0,4,0,7,1,0)_{990}$$

$$\ell_{18} = \begin{bmatrix} 1 & \delta^{13} & \delta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{63062} = \begin{bmatrix} 1 & 6 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{63062} = \mathbf{Pl}(0,14,0,6,1,0)_{969}$$

$$\ell_{19} = \begin{bmatrix} 1 & \delta^2 & \delta^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{36308} = \begin{bmatrix} 1 & 4 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{36308} = \mathbf{Pl}(0,8,0,4,1,0)_{901}$$

$$\ell_{20} = \begin{bmatrix} 1 & \delta^7 & \delta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{63335} = \begin{bmatrix} 1 & 7 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{63335} = \mathbf{Pl}(0,14,0,7,1,0)_{1000}$$

$$\ell_{21} = \begin{bmatrix} 1 & \delta^{13} & \delta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{19382} = \begin{bmatrix} 1 & 6 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{19382} = \mathbf{Pl}(0,4,0,6,1,0)_{959}$$

$$\ell_{22} = \left[\begin{array}{cccc} 1 & \delta^{8} & \delta^{12} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{17198} = \left[\begin{array}{cccc} 1 & 14 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{17198} = \mathbf{Pl}(0,3,0,14,1,0)_{1206}$$

$$\ell_{23} = \left[\begin{array}{cccc} 1 & \delta^{9} & \delta^{3} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{36581} = \left[\begin{array}{cccc} 1 & 5 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{36581} = \mathbf{Pl}(0,8,0,5,1,0)_{932}$$

$$\ell_{24} = \left[\begin{array}{cccc} 1 & \delta^{11} & \delta^{5} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{51869} = \left[\begin{array}{cccc} 1 & 13 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{51869} = \mathbf{Pl}(0,11,0,13,1,0)_{1183}$$

Rank of lines: (272, 69904, 545, 4640, 4913, 67976, 45863, 17471, 51596, 68249, 12284, 43133, 22658, 45590, 22931, 12557, 42860, 19655, 63062, 36308, 63335, 19382, 17198, 36581, 51869)
Rank of points on Klein quadric: (289, 33, 785, 305, 801, 1032, 996, 1237, 1152, 1063, 1143, 1181, 836, 965, 867, 1174, 1150, 990, 969, 901, 1000, 959, 1206, 932, 1183)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 0 Double points:
The double points on the surface are:

Single Points

The surface has 400 single points:
The single points on the surface are:

0 : $P_{0} = (1,0,0,0)$ lies on line ℓ_{0}
1 : $P_{1} = (0,1,0,0)$ lies on line ℓ_{1}
2 : $P_{4} = (1,1,1,1)$ lies on line ℓ_{4}
3 : $P_{5} = (1,1,0,0)$ lies on line ℓ_{2}
4 : $P_{20} = (1,0,1,0)$ lies on line ℓ_{3}
5 : $P_{36} = (1,1,1,0)$ lies on line ℓ_{4}
6 : $P_{72} = (5,3,1,0)$ lies on line ℓ_{5}
7 : $P_{78} = (11,3,1,0)$ lies on line ℓ_{6}
8 : $P_{107} = (8,5,1,0)$ lies on line ℓ_{7}
9 : $P_{109} = (10,5,1,0)$ lies on line ℓ_{8}
10 : $P_{120} = (5,6,1,0)$ lies on line ℓ_{9}
11 : $P_{127} = (12,6,1,0)$ lies on line ℓ_{10}
12 : $P_{144} = (13,7,1,0)$ lies on line ℓ_{11}
13 : $P_{146} = (15,7,1,0)$ lies on line ℓ_{12}
14 : $P_{158} = (11,8,1,0)$ lies on line ℓ_{13}
15 : $P_{162} = (15,8,1,0)$ lies on line ℓ_{14}
16 : $P_{191} = (12,10,1,0)$ lies on line ℓ_{15}
17 : $P_{192} = (13,10,1,0)$ lies on line ℓ_{16}
18 : $P_{201} = (6,11,1,0)$ lies on line ℓ_{17}
19 : $P_{202} = (7,11,1,0)$ lies on line ℓ_{18}
20 : $P_{214} = (3,12,1,0)$ lies on line ℓ_{19}
21 : $P_{218} = (7,12,1,0)$ lies on line ℓ_{20}
22 : $P_{233} = (6,13,1,0)$ lies on line ℓ_{21}
23 : $P_{235} = (8,13,1,0)$ lies on line ℓ_{22}
24 : $P_{262} = (3,15,1,0)$ lies on line ℓ_{23}
25 : $P_{269} = (10,15,1,0)$ lies on line ℓ_{24}
26 : $P_{275} = (1,0,0,1)$ lies on line ℓ_{0}
27 : $P_{276} = (2,0,0,1)$ lies on line ℓ_{0}
28 : $P_{277} = (3,0,0,1)$ lies on line ℓ_{0}
29 : $P_{278} = (4,0,0,1)$ lies on line ℓ_{0}
30 : $P_{279} = (5,0,0,1)$ lies on line ℓ_{0}
31 : $P_{280} = (6,0,0,1)$ lies on line ℓ_{0}
32 : $P_{281} = (7,0,0,1)$ lies on line ℓ_{0}
33 : $P_{282} = (8,0,0,1)$ lies on line ℓ_{0}
34 : $P_{283} = (9,0,0,1)$ lies on line ℓ_{0}
35 : $P_{284} = (10,0,0,1)$ lies on line ℓ_{0}
36 : $P_{285} = (11,0,0,1)$ lies on line ℓ_{0}
37 : $P_{286} = (12,0,0,1)$ lies on line ℓ_{0}
38 : $P_{287} = (13,0,0,1)$ lies on line ℓ_{0}
39 : $P_{288} = (14,0,0,1)$ lies on line ℓ_{0}
40 : $P_{289} = (15,0,0,1)$ lies on line ℓ_{0}
41 : $P_{290} = (0,1,0,1)$ lies on line ℓ_{1}
42 : $P_{291} = (1,1,0,1)$ lies on line ℓ_{2}
43 : $P_{306} = (0,2,0,1)$ lies on line ℓ_{1}
44 : $P_{308} = (2,2,0,1)$ lies on line ℓ_{2}
45 : $P_{322} = (0,3,0,1)$ lies on line ℓ_{1}

46 : $P_{325} = (3, 3, 0, 1)$ lies on line ℓ_2
47 : $P_{338} = (0, 4, 0, 1)$ lies on line ℓ_1
48 : $P_{342} = (4, 4, 0, 1)$ lies on line ℓ_2
49 : $P_{354} = (0, 5, 0, 1)$ lies on line ℓ_1
50 : $P_{359} = (5, 5, 0, 1)$ lies on line ℓ_2
51 : $P_{370} = (0, 6, 0, 1)$ lies on line ℓ_1
52 : $P_{376} = (6, 6, 0, 1)$ lies on line ℓ_2
53 : $P_{386} = (0, 7, 0, 1)$ lies on line ℓ_1
54 : $P_{393} = (7, 7, 0, 1)$ lies on line ℓ_2
55 : $P_{402} = (0, 8, 0, 1)$ lies on line ℓ_1
56 : $P_{410} = (8, 8, 0, 1)$ lies on line ℓ_2
57 : $P_{418} = (0, 9, 0, 1)$ lies on line ℓ_1
58 : $P_{427} = (9, 9, 0, 1)$ lies on line ℓ_2
59 : $P_{434} = (0, 10, 0, 1)$ lies on line ℓ_1
60 : $P_{444} = (10, 10, 0, 1)$ lies on line ℓ_2
61 : $P_{450} = (0, 11, 0, 1)$ lies on line ℓ_1
62 : $P_{461} = (11, 11, 0, 1)$ lies on line ℓ_2
63 : $P_{466} = (0, 12, 0, 1)$ lies on line ℓ_1
64 : $P_{478} = (12, 12, 0, 1)$ lies on line ℓ_2
65 : $P_{482} = (0, 13, 0, 1)$ lies on line ℓ_1
66 : $P_{495} = (13, 13, 0, 1)$ lies on line ℓ_2
67 : $P_{498} = (0, 14, 0, 1)$ lies on line ℓ_1
68 : $P_{512} = (14, 14, 0, 1)$ lies on line ℓ_2
69 : $P_{514} = (0, 15, 0, 1)$ lies on line ℓ_1
70 : $P_{529} = (15, 15, 0, 1)$ lies on line ℓ_2
71 : $P_{531} = (1, 0, 1, 1)$ lies on line ℓ_3
72 : $P_{582} = (5, 3, 1, 1)$ lies on line ℓ_5
73 : $P_{588} = (11, 3, 1, 1)$ lies on line ℓ_6
74 : $P_{617} = (8, 5, 1, 1)$ lies on line ℓ_7
75 : $P_{619} = (10, 5, 1, 1)$ lies on line ℓ_8
76 : $P_{630} = (5, 6, 1, 1)$ lies on line ℓ_9
77 : $P_{637} = (12, 6, 1, 1)$ lies on line ℓ_{10}
78 : $P_{654} = (13, 7, 1, 1)$ lies on line ℓ_{11}
79 : $P_{656} = (15, 7, 1, 1)$ lies on line ℓ_{12}
80 : $P_{668} = (11, 8, 1, 1)$ lies on line ℓ_{13}
81 : $P_{672} = (15, 8, 1, 1)$ lies on line ℓ_{14}
82 : $P_{701} = (12, 10, 1, 1)$ lies on line ℓ_{15}
83 : $P_{702} = (13, 10, 1, 1)$ lies on line ℓ_{16}
84 : $P_{711} = (6, 11, 1, 1)$ lies on line ℓ_{17}
85 : $P_{712} = (7, 11, 1, 1)$ lies on line ℓ_{18}
86 : $P_{724} = (3, 12, 1, 1)$ lies on line ℓ_{19}
87 : $P_{728} = (7, 12, 1, 1)$ lies on line ℓ_{20}
88 : $P_{743} = (6, 13, 1, 1)$ lies on line ℓ_{21}
89 : $P_{745} = (8, 13, 1, 1)$ lies on line ℓ_{22}
90 : $P_{772} = (3, 15, 1, 1)$ lies on line ℓ_{23}
91 : $P_{779} = (10, 15, 1, 1)$ lies on line ℓ_{24}
92 : $P_{787} = (2, 0, 2, 1)$ lies on line ℓ_3
93 : $P_{807} = (6, 1, 2, 1)$ lies on line ℓ_{19}
94 : $P_{815} = (14, 1, 2, 1)$ lies on line ℓ_{20}
95 : $P_{819} = (2, 2, 2, 1)$ lies on line ℓ_4
96 : $P_{842} = (9, 3, 2, 1)$ lies on line ℓ_{22}
97 : $P_{845} = (12, 3, 2, 1)$ lies on line ℓ_{21}
98 : $P_{891} = (10, 6, 2, 1)$ lies on line ℓ_5
99 : $P_{896} = (15, 6, 2, 1)$ lies on line ℓ_6
100 : $P_{903} = (6, 7, 2, 1)$ lies on line ℓ_{23}
101 : $P_{910} = (13, 7, 2, 1)$ lies on line ℓ_{24}
102 : $P_{936} = (7, 9, 2, 1)$ lies on line ℓ_{14}
103 : $P_{944} = (15, 9, 2, 1)$ lies on line ℓ_{13}
104 : $P_{954} = (9, 10, 2, 1)$ lies on line ℓ_7
105 : $P_{958} = (13, 10, 2, 1)$ lies on line ℓ_8
106 : $P_{978} = (1, 12, 2, 1)$ lies on line ℓ_{10}
107 : $P_{987} = (10, 12, 2, 1)$ lies on line ℓ_9
108 : $P_{994} = (1, 13, 2, 1)$ lies on line ℓ_{15}
109 : $P_{996} = (3, 13, 2, 1)$ lies on line ℓ_{16}
110 : $P_{1012} = (3, 14, 2, 1)$ lies on line ℓ_{11}
111 : $P_{1016} = (7, 14, 2, 1)$ lies on line ℓ_{12}
112 : $P_{1037} = (12, 15, 2, 1)$ lies on line ℓ_{17}
113 : $P_{1039} = (14, 15, 2, 1)$ lies on line ℓ_{18}
114 : $P_{1044} = (3, 0, 3, 1)$ lies on line ℓ_3
115 : $P_{1061} = (4, 1, 3, 1)$ lies on line ℓ_{13}
116 : $P_{1065} = (8, 1, 3, 1)$ lies on line ℓ_{14}
117 : $P_{1092} = (3, 3, 3, 1)$ lies on line ℓ_4
118 : $P_{1114} = (9, 4, 3, 1)$ lies on line ℓ_{18}
119 : $P_{1115} = (10, 4, 3, 1)$ lies on line ℓ_{17}
120 : $P_{1125} = (4, 5, 3, 1)$ lies on line ℓ_6
121 : $P_{1136} = (15, 5, 3, 1)$ lies on line ℓ_5
122 : $P_{1166} = (13, 7, 3, 1)$ lies on line ℓ_{15}
123 : $P_{1167} = (14, 7, 3, 1)$ lies on line ℓ_{16}
124 : $P_{1174} = (5, 8, 3, 1)$ lies on line ℓ_{23}
125 : $P_{1176} = (7, 8, 3, 1)$ lies on line ℓ_{24}
126 : $P_{1193} = (8, 9, 3, 1)$ lies on line ℓ_{12}
127 : $P_{1199} = (14, 9, 3, 1)$ lies on line ℓ_{11}
128 : $P_{1214} = (13, 10, 3, 1)$ lies on line ℓ_{10}
129 : $P_{1216} = (15, 10, 3, 1)$ lies on line ℓ_9
130 : $P_{1254} = (5, 13, 3, 1)$ lies on line ℓ_{19}
131 : $P_{1258} = (9, 13, 3, 1)$ lies on line ℓ_{20}
132 : $P_{1266} = (1, 14, 3, 1)$ lies on line ℓ_{22}
133 : $P_{1275} = (10, 14, 3, 1)$ lies on line ℓ_{21}
134 : $P_{1282} = (1, 15, 3, 1)$ lies on line ℓ_7
135 : $P_{1288} = (7, 15, 3, 1)$ lies on line ℓ_8
136 : $P_{1301} = (4, 0, 4, 1)$ lies on line ℓ_3
137 : $P_{1315} = (2, 1, 4, 1)$ lies on line ℓ_{10}
138 : $P_{1326} = (13, 1, 4, 1)$ lies on line ℓ_9
139 : $P_{1334} = (5, 2, 4, 1)$ lies on line ℓ_{20}
140 : $P_{1341} = (12, 2, 4, 1)$ lies on line ℓ_{19}
141 : $P_{1347} = (2, 3, 4, 1)$ lies on line ℓ_{15}
142 : $P_{1351} = (6, 3, 4, 1)$ lies on line ℓ_{16}
143 : $P_{1365} = (4, 4, 4, 1)$ lies on line ℓ_4
144 : $P_{1383} = (6, 5, 4, 1)$ lies on line ℓ_{11}
145 : $P_{1391} = (14, 5, 4, 1)$ lies on line ℓ_{12}
146 : $P_{1394} = (1, 6, 4, 1)$ lies on line ℓ_{21}
147 : $P_{1404} = (11, 6, 4, 1)$ lies on line ℓ_{22}
148 : $P_{1410} = (1, 7, 4, 1)$ lies on line ℓ_{17}
149 : $P_{1414} = (5, 7, 4, 1)$ lies on line ℓ_{18}
150 : $P_{1480} = (7, 11, 4, 1)$ lies on line ℓ_{13}
151 : $P_{1487} = (14, 11, 4, 1)$ lies on line ℓ_{14}
152 : $P_{1496} = (7, 12, 4, 1)$ lies on line ℓ_6
153 : $P_{1502} = (13, 12, 4, 1)$ lies on line ℓ_5

154 : $P_{1508} = (3, 13, 4, 1)$ lies on line ℓ_8
155 : $P_{1516} = (11, 13, 4, 1)$ lies on line ℓ_7
156 : $P_{1524} = (3, 14, 4, 1)$ lies on line ℓ_{24}
157 : $P_{1533} = (12, 14, 4, 1)$ lies on line ℓ_{23}
158 : $P_{1558} = (5, 0, 5, 1)$ lies on line ℓ_3
159 : $P_{1578} = (9, 1, 5, 1)$ lies on line ℓ_{24}
160 : $P_{1584} = (15, 1, 5, 1)$ lies on line ℓ_{23}
161 : $P_{1586} = (1, 2, 5, 1)$ lies on line ℓ_{12}
162 : $P_{1596} = (11, 2, 5, 1)$ lies on line ℓ_{11}
163 : $P_{1602} = (1, 3, 5, 1)$ lies on line ℓ_{14}
164 : $P_{1613} = (12, 3, 5, 1)$ lies on line ℓ_{13}
165 : $P_{1638} = (5, 5, 5, 1)$ lies on line ℓ_4
166 : $P_{1673} = (8, 7, 5, 1)$ lies on line ℓ_9
167 : $P_{1679} = (14, 7, 5, 1)$ lies on line ℓ_{10}
168 : $P_{1684} = (3, 8, 5, 1)$ lies on line ℓ_7
169 : $P_{1690} = (9, 8, 5, 1)$ lies on line ℓ_8
170 : $P_{1708} = (11, 9, 5, 1)$ lies on line ℓ_{16}
171 : $P_{1711} = (14, 9, 5, 1)$ lies on line ℓ_{15}
172 : $P_{1732} = (3, 11, 5, 1)$ lies on line ℓ_{22}
173 : $P_{1736} = (7, 11, 5, 1)$ lies on line ℓ_{21}
174 : $P_{1747} = (2, 12, 5, 1)$ lies on line ℓ_{18}
175 : $P_{1752} = (7, 12, 5, 1)$ lies on line ℓ_{17}
176 : $P_{1779} = (2, 14, 5, 1)$ lies on line ℓ_{20}
177 : $P_{1792} = (15, 14, 5, 1)$ lies on line ℓ_{19}
178 : $P_{1801} = (8, 15, 5, 1)$ lies on line ℓ_5
179 : $P_{1805} = (12, 15, 5, 1)$ lies on line ℓ_6
180 : $P_{1815} = (6, 0, 6, 1)$ lies on line ℓ_3
181 : $P_{1849} = (8, 2, 6, 1)$ lies on line ℓ_{13}
182 : $P_{1850} = (9, 2, 6, 1)$ lies on line ℓ_{14}
183 : $P_{1867} = (10, 3, 6, 1)$ lies on line ℓ_{19}
184 : $P_{1868} = (11, 3, 6, 1)$ lies on line ℓ_{20}
185 : $P_{1891} = (2, 5, 6, 1)$ lies on line ℓ_{22}
186 : $P_{1902} = (13, 5, 6, 1)$ lies on line ℓ_{21}
187 : $P_{1911} = (6, 6, 6, 1)$ lies on line ℓ_4
188 : $P_{1923} = (2, 7, 6, 1)$ lies on line ℓ_7
189 : $P_{1935} = (14, 7, 6, 1)$ lies on line ℓ_8
190 : $P_{1948} = (11, 8, 6, 1)$ lies on line ℓ_{18}
191 : $P_{1950} = (13, 8, 6, 1)$ lies on line ℓ_{17}
192 : $P_{1963} = (10, 9, 6, 1)$ lies on line ℓ_{23}
193 : $P_{1967} = (14, 9, 6, 1)$ lies on line ℓ_{24}
194 : $P_{1976} = (7, 10, 6, 1)$ lies on line ℓ_5
195 : $P_{1977} = (8, 10, 6, 1)$ lies on line ℓ_6
196 : $P_{1990} = (5, 11, 6, 1)$ lies on line ℓ_{11}
197 : $P_{1994} = (9, 11, 6, 1)$ lies on line ℓ_{12}
198 : $P_{2020} = (3, 13, 6, 1)$ lies on line ℓ_{10}
199 : $P_{2024} = (7, 13, 6, 1)$ lies on line ℓ_9
200 : $P_{2036} = (3, 14, 6, 1)$ lies on line ℓ_{15}
201 : $P_{2038} = (5, 14, 6, 1)$ lies on line ℓ_{16}
202 : $P_{2072} = (7, 0, 7, 1)$ lies on line ℓ_3
203 : $P_{2101} = (4, 2, 7, 1)$ lies on line ℓ_8
204 : $P_{2107} = (10, 2, 7, 1)$ lies on line ℓ_7
205 : $P_{2124} = (11, 3, 7, 1)$ lies on line ℓ_{17}
206 : $P_{2125} = (12, 3, 7, 1)$ lies on line ℓ_{18}
207 : $P_{2137} = (8, 4, 7, 1)$ lies on line ℓ_{16}
208 : $P_{2144} = (15, 4, 7, 1)$ lies on line ℓ_{15}
209 : $P_{2165} = (4, 6, 7, 1)$ lies on line ℓ_{24}
210 : $P_{2170} = (9, 6, 7, 1)$ lies on line ℓ_{23}
211 : $P_{2184} = (7, 7, 7, 1)$ lies on line ℓ_4
212 : $P_{2203} = (10, 8, 7, 1)$ lies on line ℓ_{22}
213 : $P_{2204} = (11, 8, 7, 1)$ lies on line ℓ_{21}
214 : $P_{2211} = (2, 9, 7, 1)$ lies on line ℓ_5
215 : $P_{2212} = (3, 9, 7, 1)$ lies on line ℓ_6
216 : $P_{2228} = (3, 10, 7, 1)$ lies on line ℓ_{13}
217 : $P_{2231} = (6, 10, 7, 1)$ lies on line ℓ_{14}
218 : $P_{2243} = (2, 11, 7, 1)$ lies on line ℓ_9
219 : $P_{2256} = (15, 11, 7, 1)$ lies on line ℓ_{10}
220 : $P_{2263} = (6, 12, 7, 1)$ lies on line ℓ_{12}
221 : $P_{2265} = (8, 12, 7, 1)$ lies on line ℓ_{11}
222 : $P_{2314} = (9, 15, 7, 1)$ lies on line ℓ_{19}
223 : $P_{2317} = (12, 15, 7, 1)$ lies on line ℓ_{20}
224 : $P_{2329} = (8, 0, 8, 1)$ lies on line ℓ_3
225 : $P_{2340} = (3, 1, 8, 1)$ lies on line ℓ_5
226 : $P_{2351} = (14, 1, 8, 1)$ lies on line ℓ_6
227 : $P_{2356} = (3, 2, 8, 1)$ lies on line ℓ_9
228 : $P_{2357} = (4, 2, 8, 1)$ lies on line ℓ_{10}
229 : $P_{2375} = (6, 3, 8, 1)$ lies on line ℓ_8
230 : $P_{2384} = (15, 3, 8, 1)$ lies on line ℓ_7
231 : $P_{2386} = (1, 4, 8, 1)$ lies on line ℓ_{19}
232 : $P_{2395} = (10, 4, 8, 1)$ lies on line ℓ_{20}
233 : $P_{2402} = (1, 5, 8, 1)$ lies on line ℓ_{23}
234 : $P_{2407} = (6, 5, 8, 1)$ lies on line ℓ_{24}
235 : $P_{2421} = (4, 6, 8, 1)$ lies on line ℓ_{15}
236 : $P_{2429} = (12, 6, 8, 1)$ lies on line ℓ_{16}
237 : $P_{2457} = (8, 8, 8, 1)$ lies on line ℓ_4
238 : $P_{2486} = (5, 10, 8, 1)$ lies on line ℓ_{12}
239 : $P_{2493} = (12, 10, 8, 1)$ lies on line ℓ_{11}
240 : $P_{2515} = (2, 12, 8, 1)$ lies on line ℓ_{21}
241 : $P_{2528} = (15, 12, 8, 1)$ lies on line ℓ_{22}
242 : $P_{2547} = (2, 14, 8, 1)$ lies on line ℓ_{17}
243 : $P_{2555} = (10, 14, 8, 1)$ lies on line ℓ_{18}
244 : $P_{2566} = (5, 15, 8, 1)$ lies on line ℓ_{14}
245 : $P_{2575} = (14, 15, 8, 1)$ lies on line ℓ_{13}
246 : $P_{2586} = (9, 0, 9, 1)$ lies on line ℓ_3
247 : $P_{2597} = (4, 1, 9, 1)$ lies on line ℓ_{21}
248 : $P_{2600} = (7, 1, 9, 1)$ lies on line ℓ_{22}
249 : $P_{2614} = (5, 2, 9, 1)$ lies on line ℓ_6
250 : $P_{2615} = (6, 2, 9, 1)$ lies on line ℓ_5
251 : $P_{2647} = (6, 4, 9, 1)$ lies on line ℓ_9
252 : $P_{2649} = (8, 4, 9, 1)$ lies on line ℓ_{10}
253 : $P_{2661} = (4, 5, 9, 1)$ lies on line ℓ_{17}
254 : $P_{2670} = (13, 5, 9, 1)$ lies on line ℓ_{18}
255 : $P_{2680} = (7, 6, 9, 1)$ lies on line ℓ_7
256 : $P_{2685} = (12, 6, 9, 1)$ lies on line ℓ_8
257 : $P_{2694} = (5, 7, 9, 1)$ lies on line ℓ_{13}
258 : $P_{2699} = (10, 7, 9, 1)$ lies on line ℓ_{14}
259 : $P_{2707} = (2, 8, 9, 1)$ lies on line ℓ_{19}
260 : $P_{2718} = (13, 8, 9, 1)$ lies on line ℓ_{20}
261 : $P_{2730} = (9, 9, 9, 1)$ lies on line ℓ_4

262 : $P_{2739} = (2, 10, 9, 1)$ lies on line ℓ_{23}
263 : $P_{2749} = (12, 10, 9, 1)$ lies on line ℓ_{24}
264 : $P_{2770} = (1, 12, 9, 1)$ lies on line ℓ_{16}
265 : $P_{2777} = (8, 12, 9, 1)$ lies on line ℓ_{15}
266 : $P_{2786} = (1, 13, 9, 1)$ lies on line ℓ_{11}
267 : $P_{2795} = (10, 13, 9, 1)$ lies on line ℓ_{12}
268 : $P_{2843} = (10, 0, 10, 1)$ lies on line ℓ_{3}
269 : $P_{2853} = (4, 1, 10, 1)$ lies on line ℓ_{18}
270 : $P_{2863} = (14, 1, 10, 1)$ lies on line ℓ_{17}
271 : $P_{2872} = (7, 2, 10, 1)$ lies on line ℓ_{23}
272 : $P_{2876} = (11, 2, 10, 1)$ lies on line ℓ_{24}
273 : $P_{2899} = (2, 4, 10, 1)$ lies on line ℓ_{12}
274 : $P_{2912} = (15, 4, 10, 1)$ lies on line ℓ_{11}
275 : $P_{2917} = (4, 5, 10, 1)$ lies on line ℓ_{20}
276 : $P_{2920} = (7, 5, 10, 1)$ lies on line ℓ_{19}
277 : $P_{2930} = (1, 6, 10, 1)$ lies on line ℓ_{13}
278 : $P_{2931} = (2, 6, 10, 1)$ lies on line ℓ_{14}
279 : $P_{2946} = (1, 7, 10, 1)$ lies on line ℓ_{6}
280 : $P_{2954} = (9, 7, 10, 1)$ lies on line ℓ_{5}
281 : $P_{2983} = (6, 9, 10, 1)$ lies on line ℓ_{7}
282 : $P_{2988} = (11, 9, 10, 1)$ lies on line ℓ_{8}
283 : $P_{3003} = (10, 10, 10, 1)$ lies on line ℓ_{4}
284 : $P_{3014} = (5, 11, 10, 1)$ lies on line ℓ_{15}
285 : $P_{3024} = (15, 11, 10, 1)$ lies on line ℓ_{16}
286 : $P_{3062} = (5, 14, 10, 1)$ lies on line ℓ_{10}
287 : $P_{3066} = (9, 14, 10, 1)$ lies on line ℓ_{9}
288 : $P_{3079} = (6, 15, 10, 1)$ lies on line ℓ_{22}
289 : $P_{3087} = (14, 15, 10, 1)$ lies on line ℓ_{21}
290 : $P_{3100} = (11, 0, 11, 1)$ lies on line ℓ_{3}
291 : $P_{3107} = (2, 1, 11, 1)$ lies on line ℓ_{16}
292 : $P_{3114} = (9, 1, 11, 1)$ lies on line ℓ_{15}
293 : $P_{3129} = (8, 2, 11, 1)$ lies on line ℓ_{21}
294 : $P_{3135} = (14, 2, 11, 1)$ lies on line ℓ_{22}
295 : $P_{3139} = (2, 3, 11, 1)$ lies on line ℓ_{11}
296 : $P_{3150} = (13, 3, 11, 1)$ lies on line ℓ_{12}
297 : $P_{3163} = (10, 4, 11, 1)$ lies on line ℓ_{6}
298 : $P_{3165} = (12, 4, 11, 1)$ lies on line ℓ_{5}
299 : $P_{3226} = (9, 8, 11, 1)$ lies on line ℓ_{10}
300 : $P_{3229} = (12, 8, 11, 1)$ lies on line ℓ_{9}
301 : $P_{3236} = (3, 9, 11, 1)$ lies on line ℓ_{20}
302 : $P_{3237} = (4, 9, 11, 1)$ lies on line ℓ_{19}
303 : $P_{3252} = (3, 10, 11, 1)$ lies on line ℓ_{18}
304 : $P_{3257} = (8, 10, 11, 1)$ lies on line ℓ_{17}
305 : $P_{3276} = (11, 11, 11, 1)$ lies on line ℓ_{4}
306 : $P_{3282} = (1, 12, 11, 1)$ lies on line ℓ_{8}
307 : $P_{3295} = (14, 12, 11, 1)$ lies on line ℓ_{7}
308 : $P_{3298} = (1, 13, 11, 1)$ lies on line ℓ_{24}
309 : $P_{3301} = (4, 13, 11, 1)$ lies on line ℓ_{23}
310 : $P_{3323} = (10, 14, 11, 1)$ lies on line ℓ_{13}
311 : $P_{3326} = (13, 14, 11, 1)$ lies on line ℓ_{14}
312 : $P_{3357} = (12, 0, 12, 1)$ lies on line ℓ_{3}
313 : $P_{3399} = (6, 3, 12, 1)$ lies on line ℓ_{10}
314 : $P_{3407} = (14, 3, 12, 1)$ lies on line ℓ_{9}
315 : $P_{3418} = (9, 4, 12, 1)$ lies on line ℓ_{13}
316 : $P_{3420} = (11, 4, 12, 1)$ lies on line ℓ_{14}
317 : $P_{3431} = (6, 5, 12, 1)$ lies on line ℓ_{15}
318 : $P_{3435} = (10, 5, 12, 1)$ lies on line ℓ_{16}
319 : $P_{3454} = (13, 6, 12, 1)$ lies on line ℓ_{19}
320 : $P_{3456} = (15, 6, 12, 1)$ lies on line ℓ_{20}
321 : $P_{3492} = (3, 9, 12, 1)$ lies on line ℓ_{17}
322 : $P_{3504} = (15, 9, 12, 1)$ lies on line ℓ_{18}
323 : $P_{3508} = (3, 10, 12, 1)$ lies on line ℓ_{21}
324 : $P_{3509} = (4, 10, 12, 1)$ lies on line ℓ_{22}
325 : $P_{3526} = (5, 11, 12, 1)$ lies on line ℓ_{24}
326 : $P_{3534} = (13, 11, 12, 1)$ lies on line ℓ_{23}
327 : $P_{3549} = (12, 12, 12, 1)$ lies on line ℓ_{4}
328 : $P_{3562} = (9, 13, 12, 1)$ lies on line ℓ_{6}
329 : $P_{3567} = (14, 13, 12, 1)$ lies on line ℓ_{5}
330 : $P_{3573} = (4, 14, 12, 1)$ lies on line ℓ_{7}
331 : $P_{3574} = (5, 14, 12, 1)$ lies on line ℓ_{8}
332 : $P_{3595} = (10, 15, 12, 1)$ lies on line ℓ_{11}
333 : $P_{3596} = (11, 15, 12, 1)$ lies on line ℓ_{12}
334 : $P_{3614} = (13, 0, 13, 1)$ lies on line ℓ_{3}
335 : $P_{3638} = (5, 2, 13, 1)$ lies on line ℓ_{17}
336 : $P_{3641} = (8, 2, 13, 1)$ lies on line ℓ_{18}
337 : $P_{3679} = (14, 4, 13, 1)$ lies on line ℓ_{23}
338 : $P_{3680} = (15, 4, 13, 1)$ lies on line ℓ_{24}
339 : $P_{3691} = (10, 5, 13, 1)$ lies on line ℓ_{10}
340 : $P_{3692} = (11, 5, 13, 1)$ lies on line ℓ_{9}
341 : $P_{3718} = (5, 7, 13, 1)$ lies on line ℓ_{21}
342 : $P_{3725} = (12, 7, 13, 1)$ lies on line ℓ_{22}
343 : $P_{3733} = (4, 8, 13, 1)$ lies on line ℓ_{12}
344 : $P_{3736} = (7, 8, 13, 1)$ lies on line ℓ_{11}
345 : $P_{3769} = (8, 10, 13, 1)$ lies on line ℓ_{20}
346 : $P_{3775} = (14, 10, 13, 1)$ lies on line ℓ_{19}
347 : $P_{3789} = (12, 11, 13, 1)$ lies on line ℓ_{7}
348 : $P_{3792} = (15, 11, 13, 1)$ lies on line ℓ_{8}
349 : $P_{3795} = (2, 12, 13, 1)$ lies on line ℓ_{13}
350 : $P_{3797} = (4, 12, 13, 1)$ lies on line ℓ_{14}
351 : $P_{3822} = (13, 13, 13, 1)$ lies on line ℓ_{4}
352 : $P_{3827} = (2, 14, 13, 1)$ lies on line ℓ_{6}
353 : $P_{3836} = (11, 14, 13, 1)$ lies on line ℓ_{5}
354 : $P_{3848} = (7, 15, 13, 1)$ lies on line ℓ_{16}
355 : $P_{3851} = (10, 15, 13, 1)$ lies on line ℓ_{15}
356 : $P_{3871} = (14, 0, 14, 1)$ lies on line ℓ_{3}
357 : $P_{3882} = (9, 1, 14, 1)$ lies on line ℓ_{11}
358 : $P_{3885} = (12, 1, 14, 1)$ lies on line ℓ_{12}
359 : $P_{3929} = (8, 4, 14, 1)$ lies on line ℓ_{8}
360 : $P_{3934} = (13, 4, 14, 1)$ lies on line ℓ_{7}
361 : $P_{3954} = (1, 6, 14, 1)$ lies on line ℓ_{18}
362 : $P_{3968} = (15, 6, 14, 1)$ lies on line ℓ_{17}
363 : $P_{3970} = (1, 7, 14, 1)$ lies on line ℓ_{20}
364 : $P_{3980} = (11, 7, 14, 1)$ lies on line ℓ_{19}
365 : $P_{3992} = (7, 8, 14, 1)$ lies on line ℓ_{15}
366 : $P_{3994} = (9, 8, 14, 1)$ lies on line ℓ_{16}
367 : $P_{4014} = (13, 9, 14, 1)$ lies on line ℓ_{22}
368 : $P_{4016} = (15, 9, 14, 1)$ lies on line ℓ_{21}
369 : $P_{4037} = (4, 11, 14, 1)$ lies on line ℓ_{5}

370 : $P_{4039} = (6, 11, 14, 1)$ lies on line ℓ_{6}
371 : $P_{4057} = (8, 12, 14, 1)$ lies on line ℓ_{24}
372 : $P_{4060} = (11, 12, 14, 1)$ lies on line ℓ_{23}
373 : $P_{4071} = (6, 13, 14, 1)$ lies on line ℓ_{13}
374 : $P_{4077} = (12, 13, 14, 1)$ lies on line ℓ_{14}
375 : $P_{4095} = (14, 14, 14, 1)$ lies on line ℓ_{4}
376 : $P_{4101} = (4, 15, 14, 1)$ lies on line ℓ_{9}
377 : $P_{4104} = (7, 15, 14, 1)$ lies on line ℓ_{10}
378 : $P_{4128} = (15, 0, 15, 1)$ lies on line ℓ_{3}
379 : $P_{4131} = (2, 1, 15, 1)$ lies on line ℓ_{8}
380 : $P_{4134} = (5, 1, 15, 1)$ lies on line ℓ_{7}
381 : $P_{4149} = (4, 2, 15, 1)$ lies on line ℓ_{16}
382 : $P_{4156} = (11, 2, 15, 1)$ lies on line ℓ_{15}
383 : $P_{4163} = (2, 3, 15, 1)$ lies on line ℓ_{24}
384 : $P_{4169} = (8, 3, 15, 1)$ lies on line ℓ_{23}
385 : $P_{4182} = (5, 4, 15, 1)$ lies on line ℓ_{22}
386 : $P_{4186} = (9, 4, 15, 1)$ lies on line ℓ_{21}
387 : $P_{4196} = (3, 5, 15, 1)$ lies on line ℓ_{14}
388 : $P_{4206} = (13, 5, 15, 1)$ lies on line ℓ_{13}
389 : $P_{4212} = (3, 6, 15, 1)$ lies on line ℓ_{12}
390 : $P_{4213} = (4, 6, 15, 1)$ lies on line ℓ_{11}
391 : $P_{4242} = (1, 8, 15, 1)$ lies on line ℓ_{5}
392 : $P_{4254} = (13, 8, 15, 1)$ lies on line ℓ_{6}
393 : $P_{4258} = (1, 9, 15, 1)$ lies on line ℓ_{9}
394 : $P_{4268} = (11, 9, 15, 1)$ lies on line ℓ_{10}
395 : $P_{4295} = (6, 11, 15, 1)$ lies on line ℓ_{20}
396 : $P_{4297} = (8, 11, 15, 1)$ lies on line ℓ_{19}
397 : $P_{4327} = (6, 13, 15, 1)$ lies on line ℓ_{18}
398 : $P_{4330} = (9, 13, 15, 1)$ lies on line ℓ_{17}
399 : $P_{4368} = (15, 15, 15, 1)$ lies on line ℓ_{4}

The single points on the surface are:

Points on surface but on no line

The surface has 0 points not on any line:
The points on the surface but not on lines are:

Line Intersection Graph

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	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	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 3 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 4 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 5 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 6 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 7 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 8 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 9 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 10 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 11 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 12 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 13 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 14 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 15 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 16 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 17 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 18 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 19 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 20 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{21}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 21 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{22}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 22 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 23 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 24 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

The surface has 401 points:
The points on the surface are:

$0: P_{0} = (1,0,0,0)$
$1: P_{1} = (0,1,0,0)$
$2: P_{3} = (0,0,0,1)$
$3: P_{4} = (1,1,1,1)$
$4: P_{5} = (1,1,0,0)$
$5: P_{20} = (1,0,1,0)$
$6: P_{36} = (1,1,1,0)$
$7: P_{72} = (5,3,1,0)$
$8: P_{78} = (11,3,1,0)$
$9: P_{107} = (8,5,1,0)$
$10: P_{109} = (10,5,1,0)$
$11: P_{120} = (5,6,1,0)$
$12: P_{127} = (12,6,1,0)$
$13: P_{144} = (13,7,1,0)$
$14: P_{146} = (15,7,1,0)$
$15: P_{158} = (11,8,1,0)$
$16: P_{162} = (15,8,1,0)$
$17: P_{191} = (12,10,1,0)$
$18: P_{192} = (13,10,1,0)$
$19: P_{201} = (6,11,1,0)$
$20: P_{202} = (7,11,1,0)$
$21: P_{214} = (3,12,1,0)$
$22: P_{218} = (7,12,1,0)$
$23: P_{233} = (6,13,1,0)$
$24: P_{235} = (8,13,1,0)$
$25: P_{262} = (3,15,1,0)$
$26: P_{269} = (10,15,1,0)$
$27: P_{275} = (1,0,0,1)$
$28: P_{276} = (2,0,0,1)$
$29: P_{277} = (3,0,0,1)$
$30: P_{278} = (4,0,0,1)$
$31: P_{279} = (5,0,0,1)$
$32: P_{280} = (6,0,0,1)$
$33: P_{281} = (7,0,0,1)$
$34: P_{282} = (8,0,0,1)$
$35: P_{283} = (9,0,0,1)$
$36: P_{284} = (10,0,0,1)$
$37: P_{285} = (11,0,0,1)$
$38: P_{286} = (12,0,0,1)$
$39: P_{287} = (13,0,0,1)$
$40: P_{288} = (14,0,0,1)$
$41: P_{289} = (15,0,0,1)$
$42: P_{290} = (0,1,0,1)$
$43: P_{291} = (1,1,0,1)$
$44: P_{306} = (0,2,0,1)$
$45: P_{308} = (2,2,0,1)$
$46: P_{322} = (0,3,0,1)$
$47: P_{325} = (3,3,0,1)$
$48: P_{338} = (0,4,0,1)$
$49: P_{342} = (4,4,0,1)$
$50: P_{354} = (0,5,0,1)$
$51: P_{359} = (5,5,0,1)$
$52: P_{370} = (0,6,0,1)$
$53: P_{376} = (6,6,0,1)$
$54: P_{386} = (0,7,0,1)$
$55: P_{393} = (7,7,0,1)$
$56: P_{402} = (0,8,0,1)$
$57: P_{410} = (8,8,0,1)$
$58: P_{418} = (0,9,0,1)$
$59: P_{427} = (9,9,0,1)$
$60: P_{434} = (0,10,0,1)$
$61: P_{444} = (10,10,0,1)$
$62: P_{450} = (0,11,0,1)$
$63: P_{461} = (11,11,0,1)$
$64: P_{466} = (0,12,0,1)$
$65: P_{478} = (12,12,0,1)$
$66: P_{482} = (0,13,0,1)$
$67: P_{495} = (13,13,0,1)$
$68: P_{498} = (0,14,0,1)$
$69: P_{512} = (14,14,0,1)$
$70: P_{514} = (0,15,0,1)$
$71: P_{529} = (15,15,0,1)$
$72: P_{531} = (1,0,1,1)$
$73: P_{582} = (5,3,1,1)$
$74: P_{588} = (11,3,1,1)$
$75: P_{617} = (8,5,1,1)$
$76: P_{619} = (10,5,1,1)$
$77: P_{630} = (5,6,1,1)$
$78: P_{637} = (12,6,1,1)$
$79: P_{654} = (13,7,1,1)$
$80: P_{656} = (15,7,1,1)$
$81: P_{668} = (11,8,1,1)$
$82: P_{672} = (15,8,1,1)$
$83: P_{701} = (12,10,1,1)$
$84: P_{702} = (13,10,1,1)$
$85: P_{711} = (6,11,1,1)$
$86: P_{712} = (7,11,1,1)$
$87: P_{724} = (3,12,1,1)$
$88: P_{728} = (7,12,1,1)$
$89: P_{743} = (6,13,1,1)$
$90: P_{745} = (8,13,1,1)$
$91: P_{772} = (3,15,1,1)$
$92: P_{779} = (10,15,1,1)$
$93: P_{787} = (2,0,2,1)$
$94: P_{807} = (6,1,2,1)$
$95: P_{815} = (14,1,2,1)$
$96: P_{819} = (2,2,2,1)$
$97: P_{842} = (9,3,2,1)$
$98: P_{845} = (12,3,2,1)$
$99: P_{891} = (10,6,2,1)$
$100: P_{896} = (15,6,2,1)$
$101: P_{903} = (6,7,2,1)$
$102: P_{910} = (13,7,2,1)$
$103: P_{936} = (7,9,2,1)$
$104: P_{944} = (15,9,2,1)$
$105: P_{954} = (9,10,2,1)$
$106: P_{958} = (13,10,2,1)$
$107: P_{978} = (1,12,2,1)$
$108: P_{987} = (10,12,2,1)$
$109: P_{994} = (1,13,2,1)$
$110: P_{996} = (3,13,2,1)$
$111: P_{1012} = (3,14,2,1)$
$112: P_{1016} = (7,14,2,1)$
$113: P_{1037} = (12,15,2,1)$
$114: P_{1039} = (14,15,2,1)$
$115: P_{1044} = (3,0,3,1)$
$116: P_{1061} = (4,1,3,1)$
$117: P_{1065} = (8,1,3,1)$
$118: P_{1092} = (3,3,3,1)$
$119: P_{1114} = (9,4,3,1)$
$120: P_{1115} = (10,4,3,1)$
$121: P_{1125} = (4,5,3,1)$
$122: P_{1136} = (15,5,3,1)$
$123: P_{1166} = (13,7,3,1)$
$124: P_{1167} = (14,7,3,1)$
$125: P_{1174} = (5,8,3,1)$
$126: P_{1176} = (7,8,3,1)$
$127: P_{1193} = (8,9,3,1)$
$128: P_{1199} = (14,9,3,1)$
$129: P_{1214} = (13,10,3,1)$
$130: P_{1216} = (15,10,3,1)$
$131: P_{1254} = (5,13,3,1)$
$132: P_{1258} = (9,13,3,1)$
$133: P_{1266} = (1,14,3,1)$
$134: P_{1275} = (10,14,3,1)$
$135: P_{1282} = (1,15,3,1)$
$136: P_{1288} = (7,15,3,1)$
$137: P_{1301} = (4,0,4,1)$
$138: P_{1315} = (2,1,4,1)$
$139: P_{1326} = (13,1,4,1)$
$140: P_{1334} = (5,2,4,1)$
$141: P_{1341} = (12,2,4,1)$
$142: P_{1347} = (2,3,4,1)$
$143: P_{1351} = (6,3,4,1)$
$144: P_{1365} = (4,4,4,1)$
$145: P_{1383} = (6,5,4,1)$
$146: P_{1391} = (14,5,4,1)$
$147: P_{1394} = (1,6,4,1)$
$148: P_{1404} = (11,6,4,1)$
$149: P_{1410} = (1,7,4,1)$
$150: P_{1414} = (5,7,4,1)$
$151: P_{1480} = (7,11,4,1)$
$152: P_{1487} = (14,11,4,1)$
$153: P_{1496} = (7,12,4,1)$
$154: P_{1502} = (13,12,4,1)$
$155: P_{1508} = (3,13,4,1)$
$156: P_{1516} = (11,13,4,1)$
$157: P_{1524} = (3,14,4,1)$
$158: P_{1533} = (12,14,4,1)$
$159: P_{1558} = (5,0,5,1)$
$160: P_{1578} = (9,1,5,1)$
$161: P_{1584} = (15,1,5,1)$

162 : $P_{1586} = (1, 2, 5, 1)$
163 : $P_{1596} = (11, 2, 5, 1)$
164 : $P_{1602} = (1, 3, 5, 1)$
165 : $P_{1613} = (12, 3, 5, 1)$
166 : $P_{1638} = (5, 5, 5, 1)$
167 : $P_{1673} = (8, 7, 5, 1)$
168 : $P_{1679} = (14, 7, 5, 1)$
169 : $P_{1684} = (3, 8, 5, 1)$
170 : $P_{1690} = (9, 8, 5, 1)$
171 : $P_{1708} = (11, 9, 5, 1)$
172 : $P_{1711} = (14, 9, 5, 1)$
173 : $P_{1732} = (3, 11, 5, 1)$
174 : $P_{1736} = (7, 11, 5, 1)$
175 : $P_{1747} = (2, 12, 5, 1)$
176 : $P_{1752} = (7, 12, 5, 1)$
177 : $P_{1779} = (2, 14, 5, 1)$
178 : $P_{1792} = (15, 14, 5, 1)$
179 : $P_{1801} = (8, 15, 5, 1)$
180 : $P_{1805} = (12, 15, 5, 1)$
181 : $P_{1815} = (6, 0, 6, 1)$
182 : $P_{1849} = (8, 2, 6, 1)$
183 : $P_{1850} = (9, 2, 6, 1)$
184 : $P_{1867} = (10, 3, 6, 1)$
185 : $P_{1868} = (11, 3, 6, 1)$
186 : $P_{1891} = (2, 5, 6, 1)$
187 : $P_{1902} = (13, 5, 6, 1)$
188 : $P_{1911} = (6, 6, 6, 1)$
189 : $P_{1923} = (2, 7, 6, 1)$
190 : $P_{1935} = (14, 7, 6, 1)$
191 : $P_{1948} = (11, 8, 6, 1)$
192 : $P_{1950} = (13, 8, 6, 1)$
193 : $P_{1963} = (10, 9, 6, 1)$
194 : $P_{1967} = (14, 9, 6, 1)$
195 : $P_{1976} = (7, 10, 6, 1)$
196 : $P_{1977} = (8, 10, 6, 1)$
197 : $P_{1990} = (5, 11, 6, 1)$
198 : $P_{1994} = (9, 11, 6, 1)$
199 : $P_{2020} = (3, 13, 6, 1)$
200 : $P_{2024} = (7, 13, 6, 1)$
201 : $P_{2036} = (3, 14, 6, 1)$
202 : $P_{2038} = (5, 14, 6, 1)$
203 : $P_{2072} = (7, 0, 7, 1)$
204 : $P_{2101} = (4, 2, 7, 1)$
205 : $P_{2107} = (10, 2, 7, 1)$
206 : $P_{2124} = (11, 3, 7, 1)$
207 : $P_{2125} = (12, 3, 7, 1)$
208 : $P_{2137} = (8, 4, 7, 1)$
209 : $P_{2144} = (15, 4, 7, 1)$
210 : $P_{2165} = (4, 6, 7, 1)$
211 : $P_{2170} = (9, 6, 7, 1)$
212 : $P_{2184} = (7, 7, 7, 1)$
213 : $P_{2203} = (10, 8, 7, 1)$
214 : $P_{2204} = (11, 8, 7, 1)$
215 : $P_{2211} = (2, 9, 7, 1)$
216 : $P_{2212} = (3, 9, 7, 1)$
217 : $P_{2228} = (3, 10, 7, 1)$
218 : $P_{2231} = (6, 10, 7, 1)$
219 : $P_{2243} = (2, 11, 7, 1)$
220 : $P_{2256} = (15, 11, 7, 1)$
221 : $P_{2263} = (6, 12, 7, 1)$
222 : $P_{2265} = (8, 12, 7, 1)$
223 : $P_{2314} = (9, 15, 7, 1)$
224 : $P_{2317} = (12, 15, 7, 1)$
225 : $P_{2329} = (8, 0, 8, 1)$
226 : $P_{2340} = (3, 1, 8, 1)$
227 : $P_{2351} = (14, 1, 8, 1)$
228 : $P_{2356} = (3, 2, 8, 1)$
229 : $P_{2357} = (4, 2, 8, 1)$
230 : $P_{2375} = (6, 3, 8, 1)$
231 : $P_{2384} = (15, 3, 8, 1)$
232 : $P_{2386} = (1, 4, 8, 1)$
233 : $P_{2395} = (10, 4, 8, 1)$
234 : $P_{2402} = (1, 5, 8, 1)$
235 : $P_{2407} = (6, 5, 8, 1)$
236 : $P_{2421} = (4, 6, 8, 1)$
237 : $P_{2429} = (12, 6, 8, 1)$
238 : $P_{2457} = (8, 8, 8, 1)$
239 : $P_{2486} = (5, 10, 8, 1)$
240 : $P_{2493} = (12, 10, 8, 1)$
241 : $P_{2515} = (2, 12, 8, 1)$
242 : $P_{2528} = (15, 12, 8, 1)$
243 : $P_{2547} = (2, 14, 8, 1)$
244 : $P_{2555} = (10, 14, 8, 1)$
245 : $P_{2566} = (5, 15, 8, 1)$
246 : $P_{2575} = (14, 15, 8, 1)$
247 : $P_{2586} = (9, 0, 9, 1)$
248 : $P_{2597} = (4, 1, 9, 1)$
249 : $P_{2600} = (7, 1, 9, 1)$
250 : $P_{2614} = (5, 2, 9, 1)$
251 : $P_{2615} = (6, 2, 9, 1)$
252 : $P_{2647} = (6, 4, 9, 1)$
253 : $P_{2649} = (8, 4, 9, 1)$
254 : $P_{2661} = (4, 5, 9, 1)$
255 : $P_{2670} = (13, 5, 9, 1)$
256 : $P_{2680} = (7, 6, 9, 1)$
257 : $P_{2685} = (12, 6, 9, 1)$
258 : $P_{2694} = (5, 7, 9, 1)$
259 : $P_{2699} = (10, 7, 9, 1)$
260 : $P_{2707} = (2, 8, 9, 1)$
261 : $P_{2718} = (13, 8, 9, 1)$
262 : $P_{2730} = (9, 9, 9, 1)$
263 : $P_{2739} = (2, 10, 9, 1)$
264 : $P_{2749} = (12, 10, 9, 1)$
265 : $P_{2770} = (1, 12, 9, 1)$
266 : $P_{2777} = (8, 12, 9, 1)$
267 : $P_{2786} = (1, 13, 9, 1)$
268 : $P_{2795} = (10, 13, 9, 1)$
269 : $P_{2843} = (10, 0, 10, 1)$
270 : $P_{2853} = (4, 1, 10, 1)$
271 : $P_{2863} = (14, 1, 10, 1)$
272 : $P_{2872} = (7, 2, 10, 1)$
273 : $P_{2876} = (11, 2, 10, 1)$
274 : $P_{2899} = (2, 4, 10, 1)$
275 : $P_{2912} = (15, 4, 10, 1)$
276 : $P_{2917} = (4, 5, 10, 1)$
277 : $P_{2920} = (7, 5, 10, 1)$
278 : $P_{2930} = (1, 6, 10, 1)$
279 : $P_{2931} = (2, 6, 10, 1)$
280 : $P_{2946} = (1, 7, 10, 1)$
281 : $P_{2954} = (9, 7, 10, 1)$
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283 : $P_{2988} = (11, 9, 10, 1)$
284 : $P_{3003} = (10, 10, 10, 1)$
285 : $P_{3014} = (5, 11, 10, 1)$
286 : $P_{3024} = (15, 11, 10, 1)$
287 : $P_{3062} = (5, 14, 10, 1)$
288 : $P_{3066} = (9, 14, 10, 1)$
289 : $P_{3079} = (6, 15, 10, 1)$
290 : $P_{3087} = (14, 15, 10, 1)$
291 : $P_{3100} = (11, 0, 11, 1)$
292 : $P_{3107} = (2, 1, 11, 1)$
293 : $P_{3114} = (9, 1, 11, 1)$
294 : $P_{3129} = (8, 2, 11, 1)$
295 : $P_{3135} = (14, 2, 11, 1)$
296 : $P_{3139} = (2, 3, 11, 1)$
297 : $P_{3150} = (13, 3, 11, 1)$
298 : $P_{3163} = (10, 4, 11, 1)$
299 : $P_{3165} = (12, 4, 11, 1)$
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301 : $P_{3229} = (12, 8, 11, 1)$
302 : $P_{3236} = (3, 9, 11, 1)$
303 : $P_{3237} = (4, 9, 11, 1)$
304 : $P_{3252} = (3, 10, 11, 1)$
305 : $P_{3257} = (8, 10, 11, 1)$
306 : $P_{3276} = (11, 11, 11, 1)$
307 : $P_{3282} = (1, 12, 11, 1)$
308 : $P_{3295} = (14, 12, 11, 1)$
309 : $P_{3298} = (1, 13, 11, 1)$
310 : $P_{3301} = (4, 13, 11, 1)$
311 : $P_{3323} = (10, 14, 11, 1)$
312 : $P_{3326} = (13, 14, 11, 1)$
313 : $P_{3357} = (12, 0, 12, 1)$
314 : $P_{3399} = (6, 3, 12, 1)$
315 : $P_{3407} = (14, 3, 12, 1)$
316 : $P_{3418} = (9, 4, 12, 1)$
317 : $P_{3420} = (11, 4, 12, 1)$
318 : $P_{3431} = (6, 5, 12, 1)$
319 : $P_{3435} = (10, 5, 12, 1)$
320 : $P_{3454} = (13, 6, 12, 1)$
321 : $P_{3456} = (15, 6, 12, 1)$
322 : $P_{3492} = (3, 9, 12, 1)$
323 : $P_{3504} = (15, 9, 12, 1)$

$324 : P_{3508} = (3, 10, 12, 1)$
$325 : P_{3509} = (4, 10, 12, 1)$
$326 : P_{3526} = (5, 11, 12, 1)$
$327 : P_{3534} = (13, 11, 12, 1)$
$328 : P_{3549} = (12, 12, 12, 1)$
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$332 : P_{3574} = (5, 14, 12, 1)$
$333 : P_{3595} = (10, 15, 12, 1)$
$334 : P_{3596} = (11, 15, 12, 1)$
$335 : P_{3614} = (13, 0, 13, 1)$
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$337 : P_{3641} = (8, 2, 13, 1)$
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$341 : P_{3692} = (11, 5, 13, 1)$
$342 : P_{3718} = (5, 7, 13, 1)$
$343 : P_{3725} = (12, 7, 13, 1)$
$344 : P_{3733} = (4, 8, 13, 1)$
$345 : P_{3736} = (7, 8, 13, 1)$
$346 : P_{3769} = (8, 10, 13, 1)$
$347 : P_{3775} = (14, 10, 13, 1)$
$348 : P_{3789} = (12, 11, 13, 1)$
$349 : P_{3792} = (15, 11, 13, 1)$
$350 : P_{3795} = (2, 12, 13, 1)$
$351 : P_{3797} = (4, 12, 13, 1)$
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$353 : P_{3827} = (2, 14, 13, 1)$
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$355 : P_{3848} = (7, 15, 13, 1)$
$356 : P_{3851} = (10, 15, 13, 1)$
$357 : P_{3871} = (14, 0, 14, 1)$
$358 : P_{3882} = (9, 1, 14, 1)$
$359 : P_{3885} = (12, 1, 14, 1)$
$360 : P_{3929} = (8, 4, 14, 1)$
$361 : P_{3934} = (13, 4, 14, 1)$
$362 : P_{3954} = (1, 6, 14, 1)$
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$365 : P_{3980} = (11, 7, 14, 1)$
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$367 : P_{3994} = (9, 8, 14, 1)$
$368 : P_{4014} = (13, 9, 14, 1)$
$369 : P_{4016} = (15, 9, 14, 1)$
$370 : P_{4037} = (4, 11, 14, 1)$
$371 : P_{4039} = (6, 11, 14, 1)$
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$374 : P_{4071} = (6, 13, 14, 1)$
$375 : P_{4077} = (12, 13, 14, 1)$
$376 : P_{4095} = (14, 14, 14, 1)$
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$378 : P_{4104} = (7, 15, 14, 1)$
$379 : P_{4128} = (15, 0, 15, 1)$
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$383 : P_{4156} = (11, 2, 15, 1)$
$384 : P_{4163} = (2, 3, 15, 1)$
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$388 : P_{4196} = (3, 5, 15, 1)$
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$394 : P_{4258} = (1, 9, 15, 1)$
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$398 : P_{4327} = (6, 13, 15, 1)$
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$400 : P_{4368} = (15, 15, 15, 1)$