

Rank-76307 over GF(64)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(64) is 1107562565

General information

| | |
|----------------------------|---------------------------------------|
| Number of lines | 16 |
| Number of points | 4417 |
| Number of singular points | 2 |
| Number of Eckardt points | 3 |
| Number of double points | 29 |
| Number of single points | 963 |
| Number of points off lines | 3420 |
| Number of Hesse planes | 0 |
| Number of axes | 0 |
| Type of points on lines | 65^{16} |
| Type of lines on points | $5^2, 3^3, 2^{29}, 1^{963}, 0^{3420}$ |

Singular Points

The surface has 2 singular points:

$$0 : P_{123} = \mathbf{P}(\epsilon^{42}, 0, 1, 0) = \mathbf{P}(56, 0, 1, 0)$$

$$1 : P_{124} = \mathbf{P}(\epsilon^{21}, 0, 1, 0) = \mathbf{P}(57, 0, 1, 0)$$

The 16 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{array} \right]_{4096} = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{array} \right]_{4096} = \mathbf{P}\mathbf{I}(0, 0, 1, 0, 0, 0)_2$$

$$\begin{aligned}
\ell_1 &= \begin{bmatrix} 1 & 0 & \epsilon^{42} & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{233016} = \begin{bmatrix} 1 & 0 & 56 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{233016} = \mathbf{Pl}(57, 0, 0, 0, 0, 1)_{270458} \\
\ell_2 &= \begin{bmatrix} 1 & 0 & \epsilon^{21} & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{237177} = \begin{bmatrix} 1 & 0 & 57 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{237177} = \mathbf{Pl}(56, 0, 0, 0, 0, 1)_{270457} \\
\ell_3 &= \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17047616} = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17047616} = \mathbf{Pl}(0, 1, 0, 0, 0, 0)_1 \\
\ell_4 &= \begin{bmatrix} 1 & 0 & \epsilon^{21} & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{237242} = \begin{bmatrix} 1 & 0 & 57 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{237242} = \mathbf{Pl}(1, 1, 1, 0, 56, 1)_{14951040} \\
\ell_5 &= \begin{bmatrix} 1 & 0 & \epsilon^{21} & 0 \\ 0 & 1 & \epsilon^{42} & \epsilon^{21} \end{bmatrix}_{240881} = \begin{bmatrix} 1 & 0 & 57 & 0 \\ 0 & 1 & 56 & 57 \end{bmatrix}_{240881} = \mathbf{Pl}(56, 57, 57, 0, 1, 1)_{540223} \\
\ell_6 &= \begin{bmatrix} 1 & 0 & \epsilon^{21} & 0 \\ 0 & 1 & \epsilon^{21} & \epsilon^{42} \end{bmatrix}_{240818} = \begin{bmatrix} 1 & 0 & 57 & 0 \\ 0 & 1 & 57 & 56 \end{bmatrix}_{240818} = \mathbf{Pl}(57, 56, 56, 0, 57, 1)_{15216641} \\
\ell_7 &= \begin{bmatrix} 1 & 0 & \epsilon^{42} & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{233081} = \begin{bmatrix} 1 & 0 & 56 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{233081} = \mathbf{Pl}(1, 1, 1, 0, 57, 1)_{15213120} \\
\ell_8 &= \begin{bmatrix} 1 & 0 & \epsilon^{42} & 0 \\ 0 & 1 & \epsilon^{42} & \epsilon^{21} \end{bmatrix}_{236720} = \begin{bmatrix} 1 & 0 & 56 & 0 \\ 0 & 1 & 56 & 57 \end{bmatrix}_{236720} = \mathbf{Pl}(56, 57, 57, 0, 56, 1)_{14954623} \\
\ell_9 &= \begin{bmatrix} 1 & 0 & \epsilon^{42} & 0 \\ 0 & 1 & \epsilon^{21} & \epsilon^{42} \end{bmatrix}_{236657} = \begin{bmatrix} 1 & 0 & 56 & 0 \\ 0 & 1 & 57 & 56 \end{bmatrix}_{236657} = \mathbf{Pl}(57, 56, 56, 0, 1, 1)_{540161} \\
\ell_{10} &= \begin{bmatrix} 1 & \epsilon^{21} & 0 & 1 \\ 0 & 0 & 1 & \epsilon^{42} \end{bmatrix}_{507633} = \begin{bmatrix} 1 & 57 & 0 & 1 \\ 0 & 0 & 1 & 56 \end{bmatrix}_{507633} = \mathbf{Pl}(0, 56, 57, 56, 57, 1)_{15228289} \\
\ell_{11} &= \begin{bmatrix} 1 & \epsilon^{42} & 0 & 1 \\ 0 & 0 & 1 & \epsilon^{21} \end{bmatrix}_{503473} = \begin{bmatrix} 1 & 56 & 0 & 1 \\ 0 & 0 & 1 & 57 \end{bmatrix}_{503473} = \mathbf{Pl}(0, 57, 56, 57, 56, 1)_{14966083} \\
\ell_{12} &= \begin{bmatrix} 1 & 1 & 0 & \epsilon^{21} \\ 0 & 0 & 1 & 1 \end{bmatrix}_{15187586} = \begin{bmatrix} 1 & 1 & 0 & 57 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{15187586} = \mathbf{Pl}(0, 57, 1, 1, 1, 1)_{544698} \\
\ell_{13} &= \begin{bmatrix} 1 & \epsilon^{21} & 0 & \epsilon^{21} \\ 0 & 0 & 1 & \epsilon^{42} \end{bmatrix}_{15420657} = \begin{bmatrix} 1 & 57 & 0 & 57 \\ 0 & 0 & 1 & 56 \end{bmatrix}_{15420657} = \mathbf{Pl}(0, 1, 57, 56, 57, 1)_{15228234} \\
\ell_{14} &= \begin{bmatrix} 1 & \epsilon^{42} & 0 & \epsilon^{42} \\ 0 & 0 & 1 & \epsilon^{21} \end{bmatrix}_{15150193} = \begin{bmatrix} 1 & 56 & 0 & 56 \\ 0 & 0 & 1 & 57 \end{bmatrix}_{15150193} = \mathbf{Pl}(0, 1, 56, 57, 56, 1)_{14966027} \\
\ell_{15} &= \begin{bmatrix} 1 & 1 & 0 & \epsilon^{42} \\ 0 & 0 & 1 & 1 \end{bmatrix}_{14921282} = \begin{bmatrix} 1 & 1 & 0 & 56 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{14921282} = \mathbf{Pl}(0, 56, 1, 1, 1, 1)_{544697}
\end{aligned}$$

Rank of lines: (4096, 233016, 237177, 17047616, 237242, 240881, 240818, 233081, 236720, 236657, 507633, 503473, 15187586, 15420657, 15150193, 14921282)

Rank of points on Klein quadric: (2, 270458, 270457, 1, 14951040, 540223, 15216641, 15213120, 14954623, 540161, 15228289, 14966083, 544698, 15228234, 14966027, 544697)

Eckardt Points

The surface has 3 Eckardt points:

$$0 : P_{8258} = \mathbf{P}(0, 0, 1, 1) = \mathbf{P}(0, 0, 1, 1),$$

$$1 : P_{233537} = \mathbf{P}(0, 0, \epsilon^{42}, 1) = \mathbf{P}(0, 0, 56, 1),$$

$$2 : P_{237633} = \mathbf{P}(0, 0, \epsilon^{21}, 1) = \mathbf{P}(0, 0, 57, 1).$$

Double Points

The surface has 29 Double points:

The double points on the surface are:

$$\begin{aligned}
P_2 &= (0, 0, 1, 0) = \ell_0 \cap \ell_3 \\
P_1 &= (0, 1, 0, 0) = \ell_1 \cap \ell_2 \\
P_{188} &= (57, 1, 1, 0) = \ell_1 \cap \ell_{11} \\
P_{3708} &= (57, 56, 1, 0) = \ell_1 \cap \ell_{13} \\
P_{3772} &= (57, 57, 1, 0) = \ell_1 \cap \ell_{15} \\
P_{187} &= (56, 1, 1, 0) = \ell_2 \cap \ell_{10} \\
P_{3707} &= (56, 56, 1, 0) = \ell_2 \cap \ell_{12} \\
P_{3771} &= (56, 57, 1, 0) = \ell_2 \cap \ell_{14} \\
P_{8322} &= (0, 1, 1, 1) = \ell_4 \cap \ell_7 \\
P_{237754} &= (57, 1, 57, 1) = \ell_4 \cap \ell_{11} \\
P_{233602} &= (1, 1, 56, 1) = \ell_4 \cap \ell_{12} \\
P_{4282} &= (56, 1, 0, 1) = \ell_4 \cap \ell_{13} \\
P_{241217} &= (0, 56, 57, 1) = \ell_5 \cap \ell_8 \\
P_{11898} &= (57, 56, 1, 1) = \ell_5 \cap \ell_{10} \\
P_{7747} &= (1, 56, 0, 1) = \ell_5 \cap \ell_{11}
\end{aligned}$$

$$\begin{aligned}
P_{237177} &= (56, 56, 56, 1) = \ell_5 \cap \ell_{15} \\
P_{237185} &= (0, 57, 56, 1) = \ell_6 \cap \ell_9 \\
P_{11906} &= (1, 57, 1, 1) = \ell_6 \cap \ell_{13} \\
P_{241337} &= (56, 57, 57, 1) = \ell_6 \cap \ell_{14} \\
P_{7867} &= (57, 57, 0, 1) = \ell_6 \cap \ell_{15} \\
P_{233657} &= (56, 1, 56, 1) = \ell_7 \cap \ell_{10} \\
P_{4283} &= (57, 1, 0, 1) = \ell_7 \cap \ell_{14} \\
P_{237698} &= (1, 1, 57, 1) = \ell_7 \cap \ell_{15} \\
P_{7802} &= (56, 56, 0, 1) = \ell_8 \cap \ell_{12} \\
P_{237178} &= (57, 56, 56, 1) = \ell_8 \cap \ell_{13} \\
P_{11842} &= (1, 56, 1, 1) = \ell_8 \cap \ell_{14} \\
P_{7811} &= (1, 57, 0, 1) = \ell_9 \cap \ell_{10} \\
P_{11961} &= (56, 57, 1, 1) = \ell_9 \cap \ell_{11} \\
P_{241338} &= (57, 57, 57, 1) = \ell_9 \cap \ell_{12}
\end{aligned}$$

Single Points

The surface has 963 single points:
The single points on the surface are:

$$\begin{aligned}
0 : P_0 &= (1, 0, 0, 0) \text{ lies on line } \ell_0 \\
1 : P_3 &= (0, 0, 0, 1) \text{ lies on line } \ell_3 \\
2 : P_{68} &= (1, 0, 1, 0) \text{ lies on line } \ell_0 \\
3 : P_{69} &= (2, 0, 1, 0) \text{ lies on line } \ell_0 \\
4 : P_{70} &= (3, 0, 1, 0) \text{ lies on line } \ell_0 \\
5 : P_{71} &= (4, 0, 1, 0) \text{ lies on line } \ell_0 \\
6 : P_{72} &= (5, 0, 1, 0) \text{ lies on line } \ell_0 \\
7 : P_{73} &= (6, 0, 1, 0) \text{ lies on line } \ell_0 \\
8 : P_{74} &= (7, 0, 1, 0) \text{ lies on line } \ell_0 \\
9 : P_{75} &= (8, 0, 1, 0) \text{ lies on line } \ell_0 \\
10 : P_{76} &= (9, 0, 1, 0) \text{ lies on line } \ell_0 \\
11 : P_{77} &= (10, 0, 1, 0) \text{ lies on line } \ell_0 \\
12 : P_{78} &= (11, 0, 1, 0) \text{ lies on line } \ell_0 \\
13 : P_{79} &= (12, 0, 1, 0) \text{ lies on line } \ell_0 \\
14 : P_{80} &= (13, 0, 1, 0) \text{ lies on line } \ell_0 \\
15 : P_{81} &= (14, 0, 1, 0) \text{ lies on line } \ell_0 \\
16 : P_{82} &= (15, 0, 1, 0) \text{ lies on line } \ell_0 \\
17 : P_{83} &= (16, 0, 1, 0) \text{ lies on line } \ell_0 \\
18 : P_{84} &= (17, 0, 1, 0) \text{ lies on line } \ell_0 \\
19 : P_{85} &= (18, 0, 1, 0) \text{ lies on line } \ell_0 \\
20 : P_{86} &= (19, 0, 1, 0) \text{ lies on line } \ell_0 \\
21 : P_{87} &= (20, 0, 1, 0) \text{ lies on line } \ell_0 \\
22 : P_{88} &= (21, 0, 1, 0) \text{ lies on line } \ell_0 \\
23 : P_{89} &= (22, 0, 1, 0) \text{ lies on line } \ell_0 \\
24 : P_{90} &= (23, 0, 1, 0) \text{ lies on line } \ell_0 \\
25 : P_{91} &= (24, 0, 1, 0) \text{ lies on line } \ell_0 \\
26 : P_{92} &= (25, 0, 1, 0) \text{ lies on line } \ell_0 \\
27 : P_{93} &= (26, 0, 1, 0) \text{ lies on line } \ell_0 \\
28 : P_{94} &= (27, 0, 1, 0) \text{ lies on line } \ell_0 \\
29 : P_{95} &= (28, 0, 1, 0) \text{ lies on line } \ell_0 \\
30 : P_{96} &= (29, 0, 1, 0) \text{ lies on line } \ell_0 \\
31 : P_{97} &= (30, 0, 1, 0) \text{ lies on line } \ell_0
\end{aligned}$$

$$\begin{aligned}
32 : P_{98} &= (31, 0, 1, 0) \text{ lies on line } \ell_0 \\
33 : P_{99} &= (32, 0, 1, 0) \text{ lies on line } \ell_0 \\
34 : P_{100} &= (33, 0, 1, 0) \text{ lies on line } \ell_0 \\
35 : P_{101} &= (34, 0, 1, 0) \text{ lies on line } \ell_0 \\
36 : P_{102} &= (35, 0, 1, 0) \text{ lies on line } \ell_0 \\
37 : P_{103} &= (36, 0, 1, 0) \text{ lies on line } \ell_0 \\
38 : P_{104} &= (37, 0, 1, 0) \text{ lies on line } \ell_0 \\
39 : P_{105} &= (38, 0, 1, 0) \text{ lies on line } \ell_0 \\
40 : P_{106} &= (39, 0, 1, 0) \text{ lies on line } \ell_0 \\
41 : P_{107} &= (40, 0, 1, 0) \text{ lies on line } \ell_0 \\
42 : P_{108} &= (41, 0, 1, 0) \text{ lies on line } \ell_0 \\
43 : P_{109} &= (42, 0, 1, 0) \text{ lies on line } \ell_0 \\
44 : P_{110} &= (43, 0, 1, 0) \text{ lies on line } \ell_0 \\
45 : P_{111} &= (44, 0, 1, 0) \text{ lies on line } \ell_0 \\
46 : P_{112} &= (45, 0, 1, 0) \text{ lies on line } \ell_0 \\
47 : P_{113} &= (46, 0, 1, 0) \text{ lies on line } \ell_0 \\
48 : P_{114} &= (47, 0, 1, 0) \text{ lies on line } \ell_0 \\
49 : P_{115} &= (48, 0, 1, 0) \text{ lies on line } \ell_0 \\
50 : P_{116} &= (49, 0, 1, 0) \text{ lies on line } \ell_0 \\
51 : P_{117} &= (50, 0, 1, 0) \text{ lies on line } \ell_0 \\
52 : P_{118} &= (51, 0, 1, 0) \text{ lies on line } \ell_0 \\
53 : P_{119} &= (52, 0, 1, 0) \text{ lies on line } \ell_0 \\
54 : P_{120} &= (53, 0, 1, 0) \text{ lies on line } \ell_0 \\
55 : P_{121} &= (54, 0, 1, 0) \text{ lies on line } \ell_0 \\
56 : P_{122} &= (55, 0, 1, 0) \text{ lies on line } \ell_0 \\
57 : P_{125} &= (58, 0, 1, 0) \text{ lies on line } \ell_0 \\
58 : P_{126} &= (59, 0, 1, 0) \text{ lies on line } \ell_0 \\
59 : P_{127} &= (60, 0, 1, 0) \text{ lies on line } \ell_0 \\
60 : P_{128} &= (61, 0, 1, 0) \text{ lies on line } \ell_0 \\
61 : P_{129} &= (62, 0, 1, 0) \text{ lies on line } \ell_0 \\
62 : P_{130} &= (63, 0, 1, 0) \text{ lies on line } \ell_0 \\
63 : P_{251} &= (56, 2, 1, 0) \text{ lies on line } \ell_2
\end{aligned}$$

64 : $P_{252} = (57, 2, 1, 0)$ lies on line ℓ_1
 65 : $P_{315} = (56, 3, 1, 0)$ lies on line ℓ_2
 66 : $P_{316} = (57, 3, 1, 0)$ lies on line ℓ_1
 67 : $P_{379} = (56, 4, 1, 0)$ lies on line ℓ_2
 68 : $P_{380} = (57, 4, 1, 0)$ lies on line ℓ_1
 69 : $P_{443} = (56, 5, 1, 0)$ lies on line ℓ_2
 70 : $P_{444} = (57, 5, 1, 0)$ lies on line ℓ_1
 71 : $P_{507} = (56, 6, 1, 0)$ lies on line ℓ_2
 72 : $P_{508} = (57, 6, 1, 0)$ lies on line ℓ_1
 73 : $P_{571} = (56, 7, 1, 0)$ lies on line ℓ_2
 74 : $P_{572} = (57, 7, 1, 0)$ lies on line ℓ_1
 75 : $P_{635} = (56, 8, 1, 0)$ lies on line ℓ_2
 76 : $P_{636} = (57, 8, 1, 0)$ lies on line ℓ_1
 77 : $P_{699} = (56, 9, 1, 0)$ lies on line ℓ_2
 78 : $P_{700} = (57, 9, 1, 0)$ lies on line ℓ_1
 79 : $P_{763} = (56, 10, 1, 0)$ lies on line ℓ_2
 80 : $P_{764} = (57, 10, 1, 0)$ lies on line ℓ_1
 81 : $P_{827} = (56, 11, 1, 0)$ lies on line ℓ_2
 82 : $P_{828} = (57, 11, 1, 0)$ lies on line ℓ_1
 83 : $P_{891} = (56, 12, 1, 0)$ lies on line ℓ_2
 84 : $P_{892} = (57, 12, 1, 0)$ lies on line ℓ_1
 85 : $P_{955} = (56, 13, 1, 0)$ lies on line ℓ_2
 86 : $P_{956} = (57, 13, 1, 0)$ lies on line ℓ_1
 87 : $P_{1019} = (56, 14, 1, 0)$ lies on line ℓ_2
 88 : $P_{1020} = (57, 14, 1, 0)$ lies on line ℓ_1
 89 : $P_{1083} = (56, 15, 1, 0)$ lies on line ℓ_2
 90 : $P_{1084} = (57, 15, 1, 0)$ lies on line ℓ_1
 91 : $P_{1147} = (56, 16, 1, 0)$ lies on line ℓ_2
 92 : $P_{1148} = (57, 16, 1, 0)$ lies on line ℓ_1
 93 : $P_{1211} = (56, 17, 1, 0)$ lies on line ℓ_2
 94 : $P_{1212} = (57, 17, 1, 0)$ lies on line ℓ_1
 95 : $P_{1275} = (56, 18, 1, 0)$ lies on line ℓ_2
 96 : $P_{1276} = (57, 18, 1, 0)$ lies on line ℓ_1
 97 : $P_{1339} = (56, 19, 1, 0)$ lies on line ℓ_2
 98 : $P_{1340} = (57, 19, 1, 0)$ lies on line ℓ_1
 99 : $P_{1403} = (56, 20, 1, 0)$ lies on line ℓ_2
 100 : $P_{1404} = (57, 20, 1, 0)$ lies on line ℓ_1
 101 : $P_{1467} = (56, 21, 1, 0)$ lies on line ℓ_2
 102 : $P_{1468} = (57, 21, 1, 0)$ lies on line ℓ_1
 103 : $P_{1531} = (56, 22, 1, 0)$ lies on line ℓ_2
 104 : $P_{1532} = (57, 22, 1, 0)$ lies on line ℓ_1
 105 : $P_{1595} = (56, 23, 1, 0)$ lies on line ℓ_2
 106 : $P_{1596} = (57, 23, 1, 0)$ lies on line ℓ_1
 107 : $P_{1659} = (56, 24, 1, 0)$ lies on line ℓ_2
 108 : $P_{1660} = (57, 24, 1, 0)$ lies on line ℓ_1
 109 : $P_{1723} = (56, 25, 1, 0)$ lies on line ℓ_2
 110 : $P_{1724} = (57, 25, 1, 0)$ lies on line ℓ_1
 111 : $P_{1787} = (56, 26, 1, 0)$ lies on line ℓ_2
 112 : $P_{1788} = (57, 26, 1, 0)$ lies on line ℓ_1
 113 : $P_{1851} = (56, 27, 1, 0)$ lies on line ℓ_2
 114 : $P_{1852} = (57, 27, 1, 0)$ lies on line ℓ_1
 115 : $P_{1915} = (56, 28, 1, 0)$ lies on line ℓ_2
 116 : $P_{1916} = (57, 28, 1, 0)$ lies on line ℓ_1
 117 : $P_{1979} = (56, 29, 1, 0)$ lies on line ℓ_2

118 : $P_{1980} = (57, 29, 1, 0)$ lies on line ℓ_1
 119 : $P_{2043} = (56, 30, 1, 0)$ lies on line ℓ_2
 120 : $P_{2044} = (57, 30, 1, 0)$ lies on line ℓ_1
 121 : $P_{2107} = (56, 31, 1, 0)$ lies on line ℓ_2
 122 : $P_{2108} = (57, 31, 1, 0)$ lies on line ℓ_1
 123 : $P_{2171} = (56, 32, 1, 0)$ lies on line ℓ_2
 124 : $P_{2172} = (57, 32, 1, 0)$ lies on line ℓ_1
 125 : $P_{2235} = (56, 33, 1, 0)$ lies on line ℓ_2
 126 : $P_{2236} = (57, 33, 1, 0)$ lies on line ℓ_1
 127 : $P_{2299} = (56, 34, 1, 0)$ lies on line ℓ_2
 128 : $P_{2300} = (57, 34, 1, 0)$ lies on line ℓ_1
 129 : $P_{2363} = (56, 35, 1, 0)$ lies on line ℓ_2
 130 : $P_{2364} = (57, 35, 1, 0)$ lies on line ℓ_1
 131 : $P_{2427} = (56, 36, 1, 0)$ lies on line ℓ_2
 132 : $P_{2428} = (57, 36, 1, 0)$ lies on line ℓ_1
 133 : $P_{2491} = (56, 37, 1, 0)$ lies on line ℓ_2
 134 : $P_{2492} = (57, 37, 1, 0)$ lies on line ℓ_1
 135 : $P_{2555} = (56, 38, 1, 0)$ lies on line ℓ_2
 136 : $P_{2556} = (57, 38, 1, 0)$ lies on line ℓ_1
 137 : $P_{2619} = (56, 39, 1, 0)$ lies on line ℓ_2
 138 : $P_{2620} = (57, 39, 1, 0)$ lies on line ℓ_1
 139 : $P_{2683} = (56, 40, 1, 0)$ lies on line ℓ_2
 140 : $P_{2684} = (57, 40, 1, 0)$ lies on line ℓ_1
 141 : $P_{2747} = (56, 41, 1, 0)$ lies on line ℓ_2
 142 : $P_{2748} = (57, 41, 1, 0)$ lies on line ℓ_1
 143 : $P_{2811} = (56, 42, 1, 0)$ lies on line ℓ_2
 144 : $P_{2812} = (57, 42, 1, 0)$ lies on line ℓ_1
 145 : $P_{2875} = (56, 43, 1, 0)$ lies on line ℓ_2
 146 : $P_{2876} = (57, 43, 1, 0)$ lies on line ℓ_1
 147 : $P_{2939} = (56, 44, 1, 0)$ lies on line ℓ_2
 148 : $P_{2940} = (57, 44, 1, 0)$ lies on line ℓ_1
 149 : $P_{3003} = (56, 45, 1, 0)$ lies on line ℓ_2
 150 : $P_{3004} = (57, 45, 1, 0)$ lies on line ℓ_1
 151 : $P_{3067} = (56, 46, 1, 0)$ lies on line ℓ_2
 152 : $P_{3068} = (57, 46, 1, 0)$ lies on line ℓ_1
 153 : $P_{3131} = (56, 47, 1, 0)$ lies on line ℓ_2
 154 : $P_{3132} = (57, 47, 1, 0)$ lies on line ℓ_1
 155 : $P_{3195} = (56, 48, 1, 0)$ lies on line ℓ_2
 156 : $P_{3196} = (57, 48, 1, 0)$ lies on line ℓ_1
 157 : $P_{3259} = (56, 49, 1, 0)$ lies on line ℓ_2
 158 : $P_{3260} = (57, 49, 1, 0)$ lies on line ℓ_1
 159 : $P_{3323} = (56, 50, 1, 0)$ lies on line ℓ_2
 160 : $P_{3324} = (57, 50, 1, 0)$ lies on line ℓ_1
 161 : $P_{3387} = (56, 51, 1, 0)$ lies on line ℓ_2
 162 : $P_{3388} = (57, 51, 1, 0)$ lies on line ℓ_1
 163 : $P_{3451} = (56, 52, 1, 0)$ lies on line ℓ_2
 164 : $P_{3452} = (57, 52, 1, 0)$ lies on line ℓ_1
 165 : $P_{3515} = (56, 53, 1, 0)$ lies on line ℓ_2
 166 : $P_{3516} = (57, 53, 1, 0)$ lies on line ℓ_1
 167 : $P_{3579} = (56, 54, 1, 0)$ lies on line ℓ_2
 168 : $P_{3580} = (57, 54, 1, 0)$ lies on line ℓ_1
 169 : $P_{3643} = (56, 55, 1, 0)$ lies on line ℓ_2
 170 : $P_{3644} = (57, 55, 1, 0)$ lies on line ℓ_1
 171 : $P_{3835} = (56, 58, 1, 0)$ lies on line ℓ_2

172 : $P_{3836} = (57, 58, 1, 0)$ lies on line ℓ_1
 173 : $P_{3899} = (56, 59, 1, 0)$ lies on line ℓ_2
 174 : $P_{3900} = (57, 59, 1, 0)$ lies on line ℓ_1
 175 : $P_{3963} = (56, 60, 1, 0)$ lies on line ℓ_2
 176 : $P_{3964} = (57, 60, 1, 0)$ lies on line ℓ_1
 177 : $P_{4027} = (56, 61, 1, 0)$ lies on line ℓ_2
 178 : $P_{4028} = (57, 61, 1, 0)$ lies on line ℓ_1
 179 : $P_{4091} = (56, 62, 1, 0)$ lies on line ℓ_2
 180 : $P_{4092} = (57, 62, 1, 0)$ lies on line ℓ_1
 181 : $P_{4155} = (56, 63, 1, 0)$ lies on line ℓ_2
 182 : $P_{4156} = (57, 63, 1, 0)$ lies on line ℓ_1
 183 : $P_{12353} = (0, 0, 2, 1)$ lies on line ℓ_3
 184 : $P_{12458} = (41, 1, 2, 1)$ lies on line ℓ_4
 185 : $P_{12459} = (42, 1, 2, 1)$ lies on line ℓ_7
 186 : $P_{13420} = (43, 16, 2, 1)$ lies on line ℓ_{13}
 187 : $P_{13545} = (40, 18, 2, 1)$ lies on line ℓ_{14}
 188 : $P_{15018} = (41, 41, 2, 1)$ lies on line ℓ_{12}
 189 : $P_{15083} = (42, 42, 2, 1)$ lies on line ℓ_{15}
 190 : $P_{15953} = (16, 56, 2, 1)$ lies on line ℓ_5
 191 : $P_{15980} = (43, 56, 2, 1)$ lies on line ℓ_8
 192 : $P_{16019} = (18, 57, 2, 1)$ lies on line ℓ_9
 193 : $P_{16041} = (40, 57, 2, 1)$ lies on line ℓ_6
 194 : $P_{16083} = (18, 58, 2, 1)$ lies on line ℓ_{11}
 195 : $P_{16145} = (16, 59, 2, 1)$ lies on line ℓ_{10}
 196 : $P_{16449} = (0, 0, 3, 1)$ lies on line ℓ_3
 197 : $P_{16530} = (17, 1, 3, 1)$ lies on line ℓ_4
 198 : $P_{16532} = (19, 1, 3, 1)$ lies on line ℓ_7
 199 : $P_{17554} = (17, 17, 3, 1)$ lies on line ℓ_{12}
 200 : $P_{17684} = (19, 19, 3, 1)$ lies on line ℓ_{15}
 201 : $P_{19027} = (18, 40, 3, 1)$ lies on line ℓ_{13}
 202 : $P_{19217} = (16, 43, 3, 1)$ lies on line ℓ_{14}
 203 : $P_{20051} = (18, 56, 3, 1)$ lies on line ℓ_8
 204 : $P_{20073} = (40, 56, 3, 1)$ lies on line ℓ_5
 205 : $P_{20113} = (16, 57, 3, 1)$ lies on line ℓ_6
 206 : $P_{20140} = (43, 57, 3, 1)$ lies on line ℓ_9
 207 : $P_{20201} = (40, 58, 3, 1)$ lies on line ℓ_{10}
 208 : $P_{20268} = (43, 59, 3, 1)$ lies on line ℓ_{11}
 209 : $P_{20545} = (0, 0, 4, 1)$ lies on line ℓ_3
 210 : $P_{20635} = (26, 1, 4, 1)$ lies on line ℓ_4
 211 : $P_{20640} = (31, 1, 4, 1)$ lies on line ℓ_7
 212 : $P_{22235} = (26, 26, 4, 1)$ lies on line ℓ_{12}
 213 : $P_{22560} = (31, 31, 4, 1)$ lies on line ℓ_{15}
 214 : $P_{22815} = (30, 35, 4, 1)$ lies on line ℓ_{13}
 215 : $P_{23068} = (27, 39, 4, 1)$ lies on line ℓ_{14}
 216 : $P_{24159} = (30, 56, 4, 1)$ lies on line ℓ_8
 217 : $P_{24164} = (35, 56, 4, 1)$ lies on line ℓ_5
 218 : $P_{24220} = (27, 57, 4, 1)$ lies on line ℓ_6
 219 : $P_{24232} = (39, 57, 4, 1)$ lies on line ℓ_9
 220 : $P_{24424} = (39, 60, 4, 1)$ lies on line ℓ_{11}
 221 : $P_{24484} = (35, 61, 4, 1)$ lies on line ℓ_{10}
 222 : $P_{24641} = (0, 0, 5, 1)$ lies on line ℓ_3
 223 : $P_{24739} = (34, 1, 5, 1)$ lies on line ℓ_4
 224 : $P_{24743} = (38, 1, 5, 1)$ lies on line ℓ_7
 225 : $P_{26408} = (39, 27, 5, 1)$ lies on line ℓ_{13}

226 : $P_{26596} = (35, 30, 5, 1)$ lies on line ℓ_{14}
 227 : $P_{26851} = (34, 34, 5, 1)$ lies on line ℓ_{12}
 228 : $P_{27111} = (38, 38, 5, 1)$ lies on line ℓ_{15}
 229 : $P_{28252} = (27, 56, 5, 1)$ lies on line ℓ_5
 230 : $P_{28264} = (39, 56, 5, 1)$ lies on line ℓ_8
 231 : $P_{28319} = (30, 57, 5, 1)$ lies on line ℓ_9
 232 : $P_{28324} = (35, 57, 5, 1)$ lies on line ℓ_6
 233 : $P_{28508} = (27, 60, 5, 1)$ lies on line ℓ_{10}
 234 : $P_{28575} = (30, 61, 5, 1)$ lies on line ℓ_{11}
 235 : $P_{28737} = (0, 0, 6, 1)$ lies on line ℓ_3
 236 : $P_{28812} = (11, 1, 6, 1)$ lies on line ℓ_4
 237 : $P_{28813} = (12, 1, 6, 1)$ lies on line ℓ_7
 238 : $P_{29452} = (11, 11, 6, 1)$ lies on line ℓ_{12}
 239 : $P_{29517} = (12, 12, 6, 1)$ lies on line ℓ_{15}
 240 : $P_{31950} = (13, 50, 6, 1)$ lies on line ℓ_{13}
 241 : $P_{32075} = (10, 52, 6, 1)$ lies on line ℓ_{14}
 242 : $P_{32334} = (13, 56, 6, 1)$ lies on line ℓ_8
 243 : $P_{32371} = (50, 56, 6, 1)$ lies on line ℓ_5
 244 : $P_{32395} = (10, 57, 6, 1)$ lies on line ℓ_6
 245 : $P_{32437} = (52, 57, 6, 1)$ lies on line ℓ_9
 246 : $P_{32757} = (52, 62, 6, 1)$ lies on line ℓ_{11}
 247 : $P_{32819} = (50, 63, 6, 1)$ lies on line ℓ_{10}
 248 : $P_{32833} = (0, 0, 7, 1)$ lies on line ℓ_3
 249 : $P_{32948} = (51, 1, 7, 1)$ lies on line ℓ_4
 250 : $P_{32950} = (53, 1, 7, 1)$ lies on line ℓ_7
 251 : $P_{33525} = (52, 10, 7, 1)$ lies on line ℓ_{13}
 252 : $P_{33715} = (50, 13, 7, 1)$ lies on line ℓ_{14}
 253 : $P_{36148} = (51, 51, 7, 1)$ lies on line ℓ_{12}
 254 : $P_{36278} = (53, 53, 7, 1)$ lies on line ℓ_{15}
 255 : $P_{36427} = (10, 56, 7, 1)$ lies on line ℓ_5
 256 : $P_{36469} = (52, 56, 7, 1)$ lies on line ℓ_8
 257 : $P_{36494} = (13, 57, 7, 1)$ lies on line ℓ_9
 258 : $P_{36531} = (50, 57, 7, 1)$ lies on line ℓ_6
 259 : $P_{36811} = (10, 62, 7, 1)$ lies on line ℓ_{10}
 260 : $P_{36878} = (13, 63, 7, 1)$ lies on line ℓ_{11}
 261 : $P_{36929} = (0, 0, 8, 1)$ lies on line ℓ_3
 262 : $P_{37013} = (20, 1, 8, 1)$ lies on line ℓ_7
 263 : $P_{37022} = (29, 1, 8, 1)$ lies on line ℓ_4
 264 : $P_{38229} = (20, 20, 8, 1)$ lies on line ℓ_{15}
 265 : $P_{38814} = (29, 29, 8, 1)$ lies on line ℓ_{12}
 266 : $P_{39254} = (21, 36, 8, 1)$ lies on line ℓ_{13}
 267 : $P_{39773} = (28, 44, 8, 1)$ lies on line ℓ_{14}
 268 : $P_{40045} = (44, 48, 8, 1)$ lies on line ℓ_{11}
 269 : $P_{40101} = (36, 49, 8, 1)$ lies on line ℓ_{10}
 270 : $P_{40534} = (21, 56, 8, 1)$ lies on line ℓ_8
 271 : $P_{40549} = (36, 56, 8, 1)$ lies on line ℓ_5
 272 : $P_{40605} = (28, 57, 8, 1)$ lies on line ℓ_6
 273 : $P_{40621} = (44, 57, 8, 1)$ lies on line ℓ_9
 274 : $P_{41025} = (0, 0, 9, 1)$ lies on line ℓ_3
 275 : $P_{41126} = (37, 1, 9, 1)$ lies on line ℓ_4
 276 : $P_{41134} = (45, 1, 9, 1)$ lies on line ℓ_7
 277 : $P_{42405} = (36, 21, 9, 1)$ lies on line ℓ_{14}
 278 : $P_{42861} = (44, 28, 9, 1)$ lies on line ℓ_{13}
 279 : $P_{43430} = (37, 37, 9, 1)$ lies on line ℓ_{12}

280 : $P_{43950} = (45, 45, 9, 1)$ lies on line ℓ_{15}
 281 : $P_{44125} = (28, 48, 9, 1)$ lies on line ℓ_{10}
 282 : $P_{44182} = (21, 49, 9, 1)$ lies on line ℓ_{11}
 283 : $P_{44637} = (28, 56, 9, 1)$ lies on line ℓ_5
 284 : $P_{44653} = (44, 56, 9, 1)$ lies on line ℓ_8
 285 : $P_{44694} = (21, 57, 9, 1)$ lies on line ℓ_9
 286 : $P_{44709} = (36, 57, 9, 1)$ lies on line ℓ_6
 287 : $P_{45121} = (0, 0, 10, 1)$ lies on line ℓ_3
 288 : $P_{45192} = (7, 1, 10, 1)$ lies on line ℓ_7
 289 : $P_{45197} = (12, 1, 10, 1)$ lies on line ℓ_4
 290 : $P_{45576} = (7, 7, 10, 1)$ lies on line ℓ_{15}
 291 : $P_{45901} = (12, 12, 10, 1)$ lies on line ℓ_{12}
 292 : $P_{48384} = (63, 50, 10, 1)$ lies on line ℓ_{11}
 293 : $P_{48438} = (53, 51, 10, 1)$ lies on line ℓ_{10}
 294 : $P_{48519} = (6, 53, 10, 1)$ lies on line ℓ_{13}
 295 : $P_{48711} = (6, 56, 10, 1)$ lies on line ℓ_8
 296 : $P_{48758} = (53, 56, 10, 1)$ lies on line ℓ_5
 297 : $P_{48782} = (13, 57, 10, 1)$ lies on line ℓ_6
 298 : $P_{48832} = (63, 57, 10, 1)$ lies on line ℓ_9
 299 : $P_{49166} = (13, 63, 10, 1)$ lies on line ℓ_{14}
 300 : $P_{49217} = (0, 0, 11, 1)$ lies on line ℓ_3
 301 : $P_{49333} = (52, 1, 11, 1)$ lies on line ℓ_4
 302 : $P_{49343} = (62, 1, 11, 1)$ lies on line ℓ_7
 303 : $P_{49654} = (53, 6, 11, 1)$ lies on line ℓ_{14}
 304 : $P_{50112} = (63, 13, 11, 1)$ lies on line ℓ_{13}
 305 : $P_{52430} = (13, 50, 11, 1)$ lies on line ℓ_{10}
 306 : $P_{52487} = (6, 51, 11, 1)$ lies on line ℓ_{11}
 307 : $P_{52597} = (52, 52, 11, 1)$ lies on line ℓ_{12}
 308 : $P_{52814} = (13, 56, 11, 1)$ lies on line ℓ_5
 309 : $P_{52864} = (63, 56, 11, 1)$ lies on line ℓ_8
 310 : $P_{52871} = (6, 57, 11, 1)$ lies on line ℓ_9
 311 : $P_{52918} = (53, 57, 11, 1)$ lies on line ℓ_6
 312 : $P_{53247} = (62, 62, 11, 1)$ lies on line ℓ_{15}
 313 : $P_{53313} = (0, 0, 12, 1)$ lies on line ℓ_3
 314 : $P_{53427} = (50, 1, 12, 1)$ lies on line ℓ_7
 315 : $P_{53440} = (63, 1, 12, 1)$ lies on line ℓ_4
 316 : $P_{53748} = (51, 6, 12, 1)$ lies on line ℓ_{13}
 317 : $P_{54015} = (62, 10, 12, 1)$ lies on line ℓ_{14}
 318 : $P_{56563} = (50, 50, 12, 1)$ lies on line ℓ_{15}
 319 : $P_{56651} = (10, 52, 12, 1)$ lies on line ℓ_{11}
 320 : $P_{56711} = (6, 53, 12, 1)$ lies on line ℓ_{10}
 321 : $P_{56903} = (6, 56, 12, 1)$ lies on line ℓ_5
 322 : $P_{56948} = (51, 56, 12, 1)$ lies on line ℓ_8
 323 : $P_{56971} = (10, 57, 12, 1)$ lies on line ℓ_9
 324 : $P_{57023} = (62, 57, 12, 1)$ lies on line ℓ_6
 325 : $P_{57408} = (63, 63, 12, 1)$ lies on line ℓ_{12}
 326 : $P_{57409} = (0, 0, 13, 1)$ lies on line ℓ_3
 327 : $P_{57480} = (7, 1, 13, 1)$ lies on line ℓ_4
 328 : $P_{57484} = (11, 1, 13, 1)$ lies on line ℓ_7
 329 : $P_{57864} = (7, 7, 13, 1)$ lies on line ℓ_{12}
 330 : $P_{58124} = (11, 11, 13, 1)$ lies on line ℓ_{15}
 331 : $P_{60679} = (6, 51, 13, 1)$ lies on line ℓ_{14}
 332 : $P_{60799} = (62, 52, 13, 1)$ lies on line ℓ_{10}
 333 : $P_{60852} = (51, 53, 13, 1)$ lies on line ℓ_{11}
 334 : $P_{61003} = (10, 56, 13, 1)$ lies on line ℓ_8
 335 : $P_{61055} = (62, 56, 13, 1)$ lies on line ℓ_5
 336 : $P_{61063} = (6, 57, 13, 1)$ lies on line ℓ_6
 337 : $P_{61108} = (51, 57, 13, 1)$ lies on line ℓ_9
 338 : $P_{61387} = (10, 62, 13, 1)$ lies on line ℓ_{13}
 339 : $P_{61505} = (0, 0, 14, 1)$ lies on line ℓ_3
 340 : $P_{61602} = (33, 1, 14, 1)$ lies on line ℓ_7
 341 : $P_{61615} = (46, 1, 14, 1)$ lies on line ℓ_4
 342 : $P_{63009} = (32, 23, 14, 1)$ lies on line ℓ_{13}
 343 : $P_{63152} = (47, 25, 14, 1)$ lies on line ℓ_{14}
 344 : $P_{63650} = (33, 33, 14, 1)$ lies on line ℓ_{15}
 345 : $P_{64495} = (46, 46, 14, 1)$ lies on line ℓ_{12}
 346 : $P_{64986} = (25, 54, 14, 1)$ lies on line ℓ_{11}
 347 : $P_{65048} = (23, 55, 14, 1)$ lies on line ℓ_{10}
 348 : $P_{65112} = (23, 56, 14, 1)$ lies on line ℓ_5
 349 : $P_{65121} = (32, 56, 14, 1)$ lies on line ℓ_8
 350 : $P_{65178} = (25, 57, 14, 1)$ lies on line ℓ_9
 351 : $P_{65200} = (47, 57, 14, 1)$ lies on line ℓ_6
 352 : $P_{65601} = (0, 0, 15, 1)$ lies on line ℓ_3
 353 : $P_{65687} = (22, 1, 15, 1)$ lies on line ℓ_4
 354 : $P_{65689} = (24, 1, 15, 1)$ lies on line ℓ_7
 355 : $P_{67031} = (22, 22, 15, 1)$ lies on line ℓ_{12}
 356 : $P_{67161} = (24, 24, 15, 1)$ lies on line ℓ_{15}
 357 : $P_{67672} = (23, 32, 15, 1)$ lies on line ℓ_{14}
 358 : $P_{68634} = (25, 47, 15, 1)$ lies on line ℓ_{13}
 359 : $P_{69104} = (47, 54, 15, 1)$ lies on line ℓ_{10}
 360 : $P_{69153} = (32, 55, 15, 1)$ lies on line ℓ_{11}
 361 : $P_{69210} = (25, 56, 15, 1)$ lies on line ℓ_8
 362 : $P_{69232} = (47, 56, 15, 1)$ lies on line ℓ_5
 363 : $P_{69272} = (23, 57, 15, 1)$ lies on line ℓ_6
 364 : $P_{69281} = (32, 57, 15, 1)$ lies on line ℓ_9
 365 : $P_{69697} = (0, 0, 16, 1)$ lies on line ℓ_3
 366 : $P_{69763} = (2, 1, 16, 1)$ lies on line ℓ_7
 367 : $P_{69780} = (19, 1, 16, 1)$ lies on line ℓ_4
 368 : $P_{69827} = (2, 2, 16, 1)$ lies on line ℓ_{15}
 369 : $P_{70932} = (19, 19, 16, 1)$ lies on line ℓ_{12}
 370 : $P_{72315} = (58, 40, 16, 1)$ lies on line ℓ_{11}
 371 : $P_{72363} = (42, 41, 16, 1)$ lies on line ℓ_{10}
 372 : $P_{72388} = (3, 42, 16, 1)$ lies on line ℓ_{13}
 373 : $P_{73284} = (3, 56, 16, 1)$ lies on line ℓ_8
 374 : $P_{73323} = (42, 56, 16, 1)$ lies on line ℓ_5
 375 : $P_{73363} = (18, 57, 16, 1)$ lies on line ℓ_6
 376 : $P_{73403} = (58, 57, 16, 1)$ lies on line ℓ_9
 377 : $P_{73427} = (18, 58, 16, 1)$ lies on line ℓ_{14}
 378 : $P_{73793} = (0, 0, 17, 1)$ lies on line ℓ_3
 379 : $P_{73900} = (43, 1, 17, 1)$ lies on line ℓ_4
 380 : $P_{73916} = (59, 1, 17, 1)$ lies on line ℓ_7
 381 : $P_{74027} = (42, 3, 17, 1)$ lies on line ℓ_{14}
 382 : $P_{75003} = (58, 18, 17, 1)$ lies on line ℓ_{13}
 383 : $P_{76371} = (18, 40, 17, 1)$ lies on line ℓ_{10}
 384 : $P_{76420} = (3, 41, 17, 1)$ lies on line ℓ_{11}
 385 : $P_{76588} = (43, 43, 17, 1)$ lies on line ℓ_{12}
 386 : $P_{77395} = (18, 56, 17, 1)$ lies on line ℓ_5
 387 : $P_{77435} = (58, 56, 17, 1)$ lies on line ℓ_8

388 : $P_{77444} = (3, 57, 17, 1)$ lies on line ℓ_9
 389 : $P_{77483} = (42, 57, 17, 1)$ lies on line ℓ_6
 390 : $P_{77628} = (59, 59, 17, 1)$ lies on line ℓ_{15}
 391 : $P_{77889} = (0, 0, 18, 1)$ lies on line ℓ_3
 392 : $P_{77955} = (2, 1, 18, 1)$ lies on line ℓ_4
 393 : $P_{77970} = (17, 1, 18, 1)$ lies on line ℓ_7
 394 : $P_{78019} = (2, 2, 18, 1)$ lies on line ℓ_{12}
 395 : $P_{78994} = (17, 17, 18, 1)$ lies on line ℓ_{15}
 396 : $P_{80516} = (3, 41, 18, 1)$ lies on line ℓ_{14}
 397 : $P_{80618} = (41, 42, 18, 1)$ lies on line ℓ_{11}
 398 : $P_{80700} = (59, 43, 18, 1)$ lies on line ℓ_{10}
 399 : $P_{81489} = (16, 56, 18, 1)$ lies on line ℓ_8
 400 : $P_{81532} = (59, 56, 18, 1)$ lies on line ℓ_5
 401 : $P_{81540} = (3, 57, 18, 1)$ lies on line ℓ_6
 402 : $P_{81578} = (41, 57, 18, 1)$ lies on line ℓ_9
 403 : $P_{81681} = (16, 59, 18, 1)$ lies on line ℓ_{13}
 404 : $P_{81985} = (0, 0, 19, 1)$ lies on line ℓ_3
 405 : $P_{82089} = (40, 1, 19, 1)$ lies on line ℓ_7
 406 : $P_{82107} = (58, 1, 19, 1)$ lies on line ℓ_4
 407 : $P_{82218} = (41, 3, 19, 1)$ lies on line ℓ_{13}
 408 : $P_{83068} = (59, 16, 19, 1)$ lies on line ℓ_{14}
 409 : $P_{84585} = (40, 40, 19, 1)$ lies on line ℓ_{15}
 410 : $P_{84676} = (3, 42, 19, 1)$ lies on line ℓ_{10}
 411 : $P_{84753} = (16, 43, 19, 1)$ lies on line ℓ_{11}
 412 : $P_{85572} = (3, 56, 19, 1)$ lies on line ℓ_5
 413 : $P_{85610} = (41, 56, 19, 1)$ lies on line ℓ_8
 414 : $P_{85649} = (16, 57, 19, 1)$ lies on line ℓ_9
 415 : $P_{85692} = (59, 57, 19, 1)$ lies on line ℓ_6
 416 : $P_{85755} = (58, 58, 19, 1)$ lies on line ℓ_{12}
 417 : $P_{86081} = (0, 0, 20, 1)$ lies on line ℓ_3
 418 : $P_{86181} = (36, 1, 20, 1)$ lies on line ℓ_7
 419 : $P_{86194} = (49, 1, 20, 1)$ lies on line ℓ_4
 420 : $P_{86630} = (37, 8, 20, 1)$ lies on line ℓ_{13}
 421 : $P_{87921} = (48, 28, 20, 1)$ lies on line ℓ_{14}
 422 : $P_{88421} = (36, 36, 20, 1)$ lies on line ℓ_{15}
 423 : $P_{88925} = (28, 44, 20, 1)$ lies on line ℓ_{11}
 424 : $P_{88969} = (8, 45, 20, 1)$ lies on line ℓ_{10}
 425 : $P_{89266} = (49, 49, 20, 1)$ lies on line ℓ_{12}
 426 : $P_{89673} = (8, 56, 20, 1)$ lies on line ℓ_5
 427 : $P_{89702} = (37, 56, 20, 1)$ lies on line ℓ_8
 428 : $P_{89757} = (28, 57, 20, 1)$ lies on line ℓ_9
 429 : $P_{89777} = (48, 57, 20, 1)$ lies on line ℓ_6
 430 : $P_{90177} = (0, 0, 21, 1)$ lies on line ℓ_3
 431 : $P_{90250} = (9, 1, 21, 1)$ lies on line ℓ_4
 432 : $P_{90270} = (29, 1, 21, 1)$ lies on line ℓ_7
 433 : $P_{90762} = (9, 9, 21, 1)$ lies on line ℓ_{12}
 434 : $P_{92062} = (29, 29, 21, 1)$ lies on line ℓ_{15}
 435 : $P_{92553} = (8, 37, 21, 1)$ lies on line ℓ_{14}
 436 : $P_{93041} = (48, 44, 21, 1)$ lies on line ℓ_{10}
 437 : $P_{93094} = (37, 45, 21, 1)$ lies on line ℓ_{11}
 438 : $P_{93277} = (28, 48, 21, 1)$ lies on line ℓ_{13}
 439 : $P_{93789} = (28, 56, 21, 1)$ lies on line ℓ_8
 440 : $P_{93809} = (48, 56, 21, 1)$ lies on line ℓ_5
 441 : $P_{93833} = (8, 57, 21, 1)$ lies on line ℓ_6

442 : $P_{93862} = (37, 57, 21, 1)$ lies on line ℓ_9
 443 : $P_{94273} = (0, 0, 22, 1)$ lies on line ℓ_3
 444 : $P_{94369} = (32, 1, 22, 1)$ lies on line ℓ_4
 445 : $P_{94392} = (55, 1, 22, 1)$ lies on line ℓ_7
 446 : $P_{95266} = (33, 15, 22, 1)$ lies on line ℓ_{14}
 447 : $P_{95927} = (54, 25, 22, 1)$ lies on line ℓ_{13}
 448 : $P_{96353} = (32, 32, 22, 1)$ lies on line ℓ_{12}
 449 : $P_{97232} = (15, 46, 22, 1)$ lies on line ℓ_{11}
 450 : $P_{97306} = (25, 47, 22, 1)$ lies on line ℓ_{10}
 451 : $P_{97848} = (55, 55, 22, 1)$ lies on line ℓ_{15}
 452 : $P_{97882} = (25, 56, 22, 1)$ lies on line ℓ_5
 453 : $P_{97911} = (54, 56, 22, 1)$ lies on line ℓ_8
 454 : $P_{97936} = (15, 57, 22, 1)$ lies on line ℓ_9
 455 : $P_{97954} = (33, 57, 22, 1)$ lies on line ℓ_6
 456 : $P_{98369} = (0, 0, 23, 1)$ lies on line ℓ_3
 457 : $P_{98447} = (14, 1, 23, 1)$ lies on line ℓ_7
 458 : $P_{98457} = (24, 1, 23, 1)$ lies on line ℓ_4
 459 : $P_{99279} = (14, 14, 23, 1)$ lies on line ℓ_{15}
 460 : $P_{99929} = (24, 24, 23, 1)$ lies on line ℓ_{12}
 461 : $P_{100496} = (15, 33, 23, 1)$ lies on line ℓ_{13}
 462 : $P_{101346} = (33, 46, 23, 1)$ lies on line ℓ_{10}
 463 : $P_{101431} = (54, 47, 23, 1)$ lies on line ℓ_{11}
 464 : $P_{101850} = (25, 54, 23, 1)$ lies on line ℓ_{14}
 465 : $P_{101968} = (15, 56, 23, 1)$ lies on line ℓ_8
 466 : $P_{101986} = (33, 56, 23, 1)$ lies on line ℓ_5
 467 : $P_{102042} = (25, 57, 23, 1)$ lies on line ℓ_6
 468 : $P_{102071} = (54, 57, 23, 1)$ lies on line ℓ_9
 469 : $P_{102465} = (0, 0, 24, 1)$ lies on line ℓ_3
 470 : $P_{102576} = (47, 1, 24, 1)$ lies on line ℓ_7
 471 : $P_{102583} = (54, 1, 24, 1)$ lies on line ℓ_4
 472 : $P_{103471} = (46, 15, 24, 1)$ lies on line ℓ_{13}
 473 : $P_{103992} = (55, 23, 24, 1)$ lies on line ℓ_{14}
 474 : $P_{104536} = (23, 32, 24, 1)$ lies on line ℓ_{11}
 475 : $P_{104592} = (15, 33, 24, 1)$ lies on line ℓ_{10}
 476 : $P_{105520} = (47, 47, 24, 1)$ lies on line ℓ_{15}
 477 : $P_{105975} = (54, 54, 24, 1)$ lies on line ℓ_{12}
 478 : $P_{106064} = (15, 56, 24, 1)$ lies on line ℓ_5
 479 : $P_{106095} = (46, 56, 24, 1)$ lies on line ℓ_8
 480 : $P_{106136} = (23, 57, 24, 1)$ lies on line ℓ_9
 481 : $P_{106168} = (55, 57, 24, 1)$ lies on line ℓ_6
 482 : $P_{106561} = (0, 0, 25, 1)$ lies on line ℓ_3
 483 : $P_{106639} = (14, 1, 25, 1)$ lies on line ℓ_7
 484 : $P_{106647} = (22, 1, 25, 1)$ lies on line ℓ_4
 485 : $P_{107471} = (14, 14, 25, 1)$ lies on line ℓ_{15}
 486 : $P_{107991} = (22, 22, 25, 1)$ lies on line ℓ_{12}
 487 : $P_{108664} = (55, 32, 25, 1)$ lies on line ℓ_{10}
 488 : $P_{108719} = (46, 33, 25, 1)$ lies on line ℓ_{11}
 489 : $P_{109520} = (15, 46, 25, 1)$ lies on line ℓ_{14}
 490 : $P_{110104} = (23, 55, 25, 1)$ lies on line ℓ_{13}
 491 : $P_{110168} = (23, 56, 25, 1)$ lies on line ℓ_8
 492 : $P_{110200} = (55, 56, 25, 1)$ lies on line ℓ_5
 493 : $P_{110224} = (15, 57, 25, 1)$ lies on line ℓ_6
 494 : $P_{110255} = (46, 57, 25, 1)$ lies on line ℓ_9
 495 : $P_{110657} = (0, 0, 26, 1)$ lies on line ℓ_3

496 : $P_{110760} = (39, 1, 26, 1)$ lies on line ℓ_4
 497 : $P_{110781} = (60, 1, 26, 1)$ lies on line ℓ_7
 498 : $P_{110951} = (38, 4, 26, 1)$ lies on line ℓ_{14}
 499 : $P_{112638} = (61, 30, 26, 1)$ lies on line ℓ_{13}
 500 : $P_{112837} = (4, 34, 26, 1)$ lies on line ℓ_{11}
 501 : $P_{112927} = (30, 35, 26, 1)$ lies on line ℓ_{10}
 502 : $P_{113192} = (39, 39, 26, 1)$ lies on line ℓ_{12}
 503 : $P_{114271} = (30, 56, 26, 1)$ lies on line ℓ_5
 504 : $P_{114302} = (61, 56, 26, 1)$ lies on line ℓ_8
 505 : $P_{114309} = (4, 57, 26, 1)$ lies on line ℓ_9
 506 : $P_{114343} = (38, 57, 26, 1)$ lies on line ℓ_6
 507 : $P_{114557} = (60, 60, 26, 1)$ lies on line ℓ_{15}
 508 : $P_{114753} = (0, 0, 27, 1)$ lies on line ℓ_3
 509 : $P_{114822} = (5, 1, 27, 1)$ lies on line ℓ_7
 510 : $P_{114848} = (31, 1, 27, 1)$ lies on line ℓ_4
 511 : $P_{115078} = (5, 5, 27, 1)$ lies on line ℓ_{15}
 512 : $P_{116768} = (31, 31, 27, 1)$ lies on line ℓ_{12}
 513 : $P_{116967} = (38, 34, 27, 1)$ lies on line ℓ_{10}
 514 : $P_{117054} = (61, 35, 27, 1)$ lies on line ℓ_{11}
 515 : $P_{117189} = (4, 38, 27, 1)$ lies on line ℓ_{13}
 516 : $P_{118341} = (4, 56, 27, 1)$ lies on line ℓ_8
 517 : $P_{118375} = (38, 56, 27, 1)$ lies on line ℓ_5
 518 : $P_{118431} = (30, 57, 27, 1)$ lies on line ℓ_6
 519 : $P_{118462} = (61, 57, 27, 1)$ lies on line ℓ_9
 520 : $P_{118687} = (30, 61, 27, 1)$ lies on line ℓ_{14}
 521 : $P_{118849} = (0, 0, 28, 1)$ lies on line ℓ_3
 522 : $P_{118922} = (9, 1, 28, 1)$ lies on line ℓ_7
 523 : $P_{118933} = (20, 1, 28, 1)$ lies on line ℓ_4
 524 : $P_{119434} = (9, 9, 28, 1)$ lies on line ℓ_{15}
 525 : $P_{120149} = (20, 20, 28, 1)$ lies on line ℓ_{12}
 526 : $P_{121202} = (49, 36, 28, 1)$ lies on line ℓ_{11}
 527 : $P_{121262} = (45, 37, 28, 1)$ lies on line ℓ_{10}
 528 : $P_{121737} = (8, 45, 28, 1)$ lies on line ℓ_{13}
 529 : $P_{122006} = (21, 49, 28, 1)$ lies on line ℓ_{14}
 530 : $P_{122441} = (8, 56, 28, 1)$ lies on line ℓ_8
 531 : $P_{122478} = (45, 56, 28, 1)$ lies on line ℓ_5
 532 : $P_{122518} = (21, 57, 28, 1)$ lies on line ℓ_6
 533 : $P_{122546} = (49, 57, 28, 1)$ lies on line ℓ_9
 534 : $P_{122945} = (0, 0, 29, 1)$ lies on line ℓ_3
 535 : $P_{123053} = (44, 1, 29, 1)$ lies on line ℓ_4
 536 : $P_{123057} = (48, 1, 29, 1)$ lies on line ℓ_7
 537 : $P_{123502} = (45, 8, 29, 1)$ lies on line ℓ_{14}
 538 : $P_{124338} = (49, 21, 29, 1)$ lies on line ℓ_{13}
 539 : $P_{125270} = (21, 36, 29, 1)$ lies on line ℓ_{10}
 540 : $P_{125321} = (8, 37, 29, 1)$ lies on line ℓ_{11}
 541 : $P_{125805} = (44, 44, 29, 1)$ lies on line ℓ_{12}
 542 : $P_{126065} = (48, 48, 29, 1)$ lies on line ℓ_{15}
 543 : $P_{126550} = (21, 56, 29, 1)$ lies on line ℓ_5
 544 : $P_{126578} = (49, 56, 29, 1)$ lies on line ℓ_8
 545 : $P_{126601} = (8, 57, 29, 1)$ lies on line ℓ_9
 546 : $P_{126638} = (45, 57, 29, 1)$ lies on line ℓ_6
 547 : $P_{127041} = (0, 0, 30, 1)$ lies on line ℓ_3
 548 : $P_{127110} = (5, 1, 30, 1)$ lies on line ℓ_4
 549 : $P_{127131} = (26, 1, 30, 1)$ lies on line ℓ_7

550 : $P_{127366} = (5, 5, 30, 1)$ lies on line ℓ_{12}
 551 : $P_{128731} = (26, 26, 30, 1)$ lies on line ℓ_{15}
 552 : $P_{129221} = (4, 34, 30, 1)$ lies on line ℓ_{14}
 553 : $P_{129507} = (34, 38, 30, 1)$ lies on line ℓ_{11}
 554 : $P_{129597} = (60, 39, 30, 1)$ lies on line ℓ_{10}
 555 : $P_{130652} = (27, 56, 30, 1)$ lies on line ℓ_8
 556 : $P_{130685} = (60, 56, 30, 1)$ lies on line ℓ_5
 557 : $P_{130693} = (4, 57, 30, 1)$ lies on line ℓ_6
 558 : $P_{130723} = (34, 57, 30, 1)$ lies on line ℓ_9
 559 : $P_{130908} = (27, 60, 30, 1)$ lies on line ℓ_{13}
 560 : $P_{131137} = (0, 0, 31, 1)$ lies on line ℓ_3
 561 : $P_{131236} = (35, 1, 31, 1)$ lies on line ℓ_7
 562 : $P_{131262} = (61, 1, 31, 1)$ lies on line ℓ_4
 563 : $P_{131427} = (34, 4, 31, 1)$ lies on line ℓ_{13}
 564 : $P_{132925} = (60, 27, 31, 1)$ lies on line ℓ_{14}
 565 : $P_{133412} = (35, 35, 31, 1)$ lies on line ℓ_{15}
 566 : $P_{133573} = (4, 38, 31, 1)$ lies on line ℓ_{10}
 567 : $P_{133660} = (27, 39, 31, 1)$ lies on line ℓ_{11}
 568 : $P_{134725} = (4, 56, 31, 1)$ lies on line ℓ_5
 569 : $P_{134755} = (34, 56, 31, 1)$ lies on line ℓ_8
 570 : $P_{134812} = (27, 57, 31, 1)$ lies on line ℓ_9
 571 : $P_{134845} = (60, 57, 31, 1)$ lies on line ℓ_6
 572 : $P_{135102} = (61, 61, 31, 1)$ lies on line ℓ_{12}
 573 : $P_{135233} = (0, 0, 32, 1)$ lies on line ℓ_3
 574 : $P_{135312} = (15, 1, 32, 1)$ lies on line ℓ_4
 575 : $P_{135343} = (46, 1, 32, 1)$ lies on line ℓ_7
 576 : $P_{136208} = (15, 15, 32, 1)$ lies on line ℓ_{12}
 577 : $P_{136655} = (14, 22, 32, 1)$ lies on line ℓ_{14}
 578 : $P_{136791} = (22, 24, 32, 1)$ lies on line ℓ_{11}
 579 : $P_{136887} = (54, 25, 32, 1)$ lies on line ℓ_{10}
 580 : $P_{138223} = (46, 46, 32, 1)$ lies on line ℓ_{15}
 581 : $P_{138736} = (47, 54, 32, 1)$ lies on line ℓ_{13}
 582 : $P_{138864} = (47, 56, 32, 1)$ lies on line ℓ_8
 583 : $P_{138871} = (54, 56, 32, 1)$ lies on line ℓ_5
 584 : $P_{138895} = (14, 57, 32, 1)$ lies on line ℓ_6
 585 : $P_{138903} = (22, 57, 32, 1)$ lies on line ℓ_9
 586 : $P_{139329} = (0, 0, 33, 1)$ lies on line ℓ_3
 587 : $P_{139416} = (23, 1, 33, 1)$ lies on line ℓ_7
 588 : $P_{139448} = (55, 1, 33, 1)$ lies on line ℓ_4
 589 : $P_{140247} = (22, 14, 33, 1)$ lies on line ℓ_{13}
 590 : $P_{140824} = (23, 23, 33, 1)$ lies on line ℓ_{15}
 591 : $P_{140879} = (14, 24, 33, 1)$ lies on line ℓ_{10}
 592 : $P_{140976} = (47, 25, 33, 1)$ lies on line ℓ_{11}
 593 : $P_{142391} = (54, 47, 33, 1)$ lies on line ℓ_{14}
 594 : $P_{142904} = (55, 55, 33, 1)$ lies on line ℓ_{12}
 595 : $P_{142927} = (14, 56, 33, 1)$ lies on line ℓ_5
 596 : $P_{142935} = (22, 56, 33, 1)$ lies on line ℓ_8
 597 : $P_{143024} = (47, 57, 33, 1)$ lies on line ℓ_9
 598 : $P_{143031} = (54, 57, 33, 1)$ lies on line ℓ_6
 599 : $P_{143425} = (0, 0, 34, 1)$ lies on line ℓ_3
 600 : $P_{143519} = (30, 1, 34, 1)$ lies on line ℓ_4
 601 : $P_{143550} = (61, 1, 34, 1)$ lies on line ℓ_7
 602 : $P_{143776} = (31, 5, 34, 1)$ lies on line ℓ_{14}
 603 : $P_{145094} = (5, 26, 34, 1)$ lies on line ℓ_{11}

604 : $P_{145192} = (39, 27, 34, 1)$ lies on line ℓ_{10}
 605 : $P_{145375} = (30, 30, 34, 1)$ lies on line ℓ_{12}
 606 : $P_{145981} = (60, 39, 34, 1)$ lies on line ℓ_{13}
 607 : $P_{147048} = (39, 56, 34, 1)$ lies on line ℓ_5
 608 : $P_{147069} = (60, 56, 34, 1)$ lies on line ℓ_8
 609 : $P_{147078} = (5, 57, 34, 1)$ lies on line ℓ_9
 610 : $P_{147104} = (31, 57, 34, 1)$ lies on line ℓ_6
 611 : $P_{147390} = (61, 61, 34, 1)$ lies on line ℓ_{15}
 612 : $P_{147521} = (0, 0, 35, 1)$ lies on line ℓ_3
 613 : $P_{147589} = (4, 1, 35, 1)$ lies on line ℓ_7
 614 : $P_{147623} = (38, 1, 35, 1)$ lies on line ℓ_4
 615 : $P_{147781} = (4, 4, 35, 1)$ lies on line ℓ_{15}
 616 : $P_{149216} = (31, 26, 35, 1)$ lies on line ℓ_{10}
 617 : $P_{149309} = (60, 27, 35, 1)$ lies on line ℓ_{11}
 618 : $P_{149510} = (5, 31, 35, 1)$ lies on line ℓ_{13}
 619 : $P_{149991} = (38, 38, 35, 1)$ lies on line ℓ_{12}
 620 : $P_{151110} = (5, 56, 35, 1)$ lies on line ℓ_8
 621 : $P_{151136} = (31, 56, 35, 1)$ lies on line ℓ_5
 622 : $P_{151208} = (39, 57, 35, 1)$ lies on line ℓ_6
 623 : $P_{151229} = (60, 57, 35, 1)$ lies on line ℓ_9
 624 : $P_{151400} = (39, 60, 35, 1)$ lies on line ℓ_{14}
 625 : $P_{151617} = (0, 0, 36, 1)$ lies on line ℓ_3
 626 : $P_{151689} = (8, 1, 36, 1)$ lies on line ℓ_7
 627 : $P_{151726} = (45, 1, 36, 1)$ lies on line ℓ_4
 628 : $P_{152137} = (8, 8, 36, 1)$ lies on line ℓ_{15}
 629 : $P_{152906} = (9, 20, 36, 1)$ lies on line ℓ_{13}
 630 : $P_{153457} = (48, 28, 36, 1)$ lies on line ℓ_{11}
 631 : $P_{153493} = (20, 29, 36, 1)$ lies on line ℓ_{10}
 632 : $P_{154542} = (45, 45, 36, 1)$ lies on line ℓ_{12}
 633 : $P_{154733} = (44, 48, 36, 1)$ lies on line ℓ_{14}
 634 : $P_{155210} = (9, 56, 36, 1)$ lies on line ℓ_8
 635 : $P_{155221} = (20, 56, 36, 1)$ lies on line ℓ_5
 636 : $P_{155309} = (44, 57, 36, 1)$ lies on line ℓ_6
 637 : $P_{155313} = (48, 57, 36, 1)$ lies on line ℓ_9
 638 : $P_{155713} = (0, 0, 37, 1)$ lies on line ℓ_3
 639 : $P_{155798} = (21, 1, 37, 1)$ lies on line ℓ_4
 640 : $P_{155826} = (49, 1, 37, 1)$ lies on line ℓ_7
 641 : $P_{156309} = (20, 9, 37, 1)$ lies on line ℓ_{14}
 642 : $P_{157078} = (21, 21, 37, 1)$ lies on line ℓ_{12}
 643 : $P_{157549} = (44, 28, 37, 1)$ lies on line ℓ_{10}
 644 : $P_{157578} = (9, 29, 37, 1)$ lies on line ℓ_{11}
 645 : $P_{158577} = (48, 44, 37, 1)$ lies on line ℓ_{13}
 646 : $P_{158898} = (49, 49, 37, 1)$ lies on line ℓ_{15}
 647 : $P_{159341} = (44, 56, 37, 1)$ lies on line ℓ_5
 648 : $P_{159345} = (48, 56, 37, 1)$ lies on line ℓ_8
 649 : $P_{159370} = (9, 57, 37, 1)$ lies on line ℓ_9
 650 : $P_{159381} = (20, 57, 37, 1)$ lies on line ℓ_6
 651 : $P_{159809} = (0, 0, 38, 1)$ lies on line ℓ_3
 652 : $P_{159900} = (27, 1, 38, 1)$ lies on line ℓ_7
 653 : $P_{159933} = (60, 1, 38, 1)$ lies on line ℓ_4
 654 : $P_{160155} = (26, 5, 38, 1)$ lies on line ℓ_{13}
 655 : $P_{161564} = (27, 27, 38, 1)$ lies on line ℓ_{15}
 656 : $P_{161764} = (35, 30, 38, 1)$ lies on line ℓ_{11}
 657 : $P_{161798} = (5, 31, 38, 1)$ lies on line ℓ_{10}

658 : $P_{162110} = (61, 35, 38, 1)$ lies on line ℓ_{14}
 659 : $P_{163398} = (5, 56, 38, 1)$ lies on line ℓ_5
 660 : $P_{163419} = (26, 56, 38, 1)$ lies on line ℓ_8
 661 : $P_{163492} = (35, 57, 38, 1)$ lies on line ℓ_9
 662 : $P_{163518} = (61, 57, 38, 1)$ lies on line ℓ_6
 663 : $P_{163709} = (60, 60, 38, 1)$ lies on line ℓ_{12}
 664 : $P_{163905} = (0, 0, 39, 1)$ lies on line ℓ_3
 665 : $P_{163973} = (4, 1, 39, 1)$ lies on line ℓ_4
 666 : $P_{164003} = (34, 1, 39, 1)$ lies on line ℓ_7
 667 : $P_{164165} = (4, 4, 39, 1)$ lies on line ℓ_{12}
 668 : $P_{165574} = (5, 26, 39, 1)$ lies on line ℓ_{14}
 669 : $P_{165886} = (61, 30, 39, 1)$ lies on line ℓ_{10}
 670 : $P_{165915} = (26, 31, 39, 1)$ lies on line ℓ_{11}
 671 : $P_{166115} = (34, 34, 39, 1)$ lies on line ℓ_{15}
 672 : $P_{167524} = (35, 56, 39, 1)$ lies on line ℓ_8
 673 : $P_{167550} = (61, 56, 39, 1)$ lies on line ℓ_5
 674 : $P_{167558} = (5, 57, 39, 1)$ lies on line ℓ_6
 675 : $P_{167579} = (26, 57, 39, 1)$ lies on line ℓ_9
 676 : $P_{167844} = (35, 61, 39, 1)$ lies on line ℓ_{13}
 677 : $P_{168001} = (0, 0, 40, 1)$ lies on line ℓ_3
 678 : $P_{168068} = (3, 1, 40, 1)$ lies on line ℓ_7
 679 : $P_{168107} = (42, 1, 40, 1)$ lies on line ℓ_4
 680 : $P_{168196} = (3, 3, 40, 1)$ lies on line ℓ_{15}
 681 : $P_{169084} = (59, 16, 40, 1)$ lies on line ℓ_{11}
 682 : $P_{169108} = (19, 17, 40, 1)$ lies on line ℓ_{10}
 683 : $P_{169219} = (2, 19, 40, 1)$ lies on line ℓ_{13}
 684 : $P_{170731} = (42, 42, 40, 1)$ lies on line ℓ_{12}
 685 : $P_{171587} = (2, 56, 40, 1)$ lies on line ℓ_8
 686 : $P_{171604} = (19, 56, 40, 1)$ lies on line ℓ_5
 687 : $P_{171692} = (43, 57, 40, 1)$ lies on line ℓ_6
 688 : $P_{171708} = (59, 57, 40, 1)$ lies on line ℓ_9
 689 : $P_{171820} = (43, 59, 40, 1)$ lies on line ℓ_{14}
 690 : $P_{172097} = (0, 0, 41, 1)$ lies on line ℓ_3
 691 : $P_{172179} = (18, 1, 41, 1)$ lies on line ℓ_4
 692 : $P_{172219} = (58, 1, 41, 1)$ lies on line ℓ_7
 693 : $P_{172244} = (19, 2, 41, 1)$ lies on line ℓ_{14}
 694 : $P_{173164} = (43, 16, 41, 1)$ lies on line ℓ_{10}
 695 : $P_{173187} = (2, 17, 41, 1)$ lies on line ℓ_{11}
 696 : $P_{173267} = (18, 18, 41, 1)$ lies on line ℓ_{12}
 697 : $P_{174908} = (59, 43, 41, 1)$ lies on line ℓ_{13}
 698 : $P_{175724} = (43, 56, 41, 1)$ lies on line ℓ_5
 699 : $P_{175740} = (59, 56, 41, 1)$ lies on line ℓ_8
 700 : $P_{175747} = (2, 57, 41, 1)$ lies on line ℓ_9
 701 : $P_{175764} = (19, 57, 41, 1)$ lies on line ℓ_6
 702 : $P_{175867} = (58, 58, 41, 1)$ lies on line ℓ_{15}
 703 : $P_{176193} = (0, 0, 42, 1)$ lies on line ℓ_3
 704 : $P_{176273} = (16, 1, 42, 1)$ lies on line ℓ_7
 705 : $P_{176316} = (59, 1, 42, 1)$ lies on line ℓ_4
 706 : $P_{176338} = (17, 2, 42, 1)$ lies on line ℓ_{13}
 707 : $P_{177233} = (16, 16, 42, 1)$ lies on line ℓ_{15}
 708 : $P_{177385} = (40, 18, 42, 1)$ lies on line ℓ_{11}
 709 : $P_{177411} = (2, 19, 42, 1)$ lies on line ℓ_{10}
 710 : $P_{178811} = (58, 40, 42, 1)$ lies on line ℓ_{14}
 711 : $P_{179779} = (2, 56, 42, 1)$ lies on line ℓ_5

712 : $P_{179794} = (17, 56, 42, 1)$ lies on line ℓ_8
 713 : $P_{179881} = (40, 57, 42, 1)$ lies on line ℓ_9
 714 : $P_{179899} = (58, 57, 42, 1)$ lies on line ℓ_6
 715 : $P_{180028} = (59, 59, 42, 1)$ lies on line ℓ_{12}
 716 : $P_{180289} = (0, 0, 43, 1)$ lies on line ℓ_3
 717 : $P_{180356} = (3, 1, 43, 1)$ lies on line ℓ_4
 718 : $P_{180394} = (41, 1, 43, 1)$ lies on line ℓ_7
 719 : $P_{180484} = (3, 3, 43, 1)$ lies on line ℓ_{12}
 720 : $P_{181379} = (2, 17, 43, 1)$ lies on line ℓ_{14}
 721 : $P_{181499} = (58, 18, 43, 1)$ lies on line ℓ_{10}
 722 : $P_{181522} = (17, 19, 43, 1)$ lies on line ℓ_{11}
 723 : $P_{182954} = (41, 41, 43, 1)$ lies on line ℓ_{15}
 724 : $P_{183913} = (40, 56, 43, 1)$ lies on line ℓ_8
 725 : $P_{183931} = (58, 56, 43, 1)$ lies on line ℓ_5
 726 : $P_{183939} = (2, 57, 43, 1)$ lies on line ℓ_6
 727 : $P_{183954} = (17, 57, 43, 1)$ lies on line ℓ_9
 728 : $P_{184041} = (40, 58, 43, 1)$ lies on line ℓ_{13}
 729 : $P_{184385} = (0, 0, 44, 1)$ lies on line ℓ_3
 730 : $P_{184457} = (8, 1, 44, 1)$ lies on line ℓ_4
 731 : $P_{184486} = (37, 1, 44, 1)$ lies on line ℓ_7
 732 : $P_{184905} = (8, 8, 44, 1)$ lies on line ℓ_{12}
 733 : $P_{185694} = (29, 20, 44, 1)$ lies on line ℓ_{11}
 734 : $P_{185778} = (49, 21, 44, 1)$ lies on line ℓ_{10}
 735 : $P_{186250} = (9, 29, 44, 1)$ lies on line ℓ_{14}
 736 : $P_{186790} = (37, 37, 44, 1)$ lies on line ℓ_{15}
 737 : $P_{187557} = (36, 49, 44, 1)$ lies on line ℓ_{13}
 738 : $P_{188005} = (36, 56, 44, 1)$ lies on line ℓ_8
 739 : $P_{188018} = (49, 56, 44, 1)$ lies on line ℓ_5
 740 : $P_{188042} = (9, 57, 44, 1)$ lies on line ℓ_6
 741 : $P_{188062} = (29, 57, 44, 1)$ lies on line ℓ_9
 742 : $P_{188481} = (0, 0, 45, 1)$ lies on line ℓ_3
 743 : $P_{188573} = (28, 1, 45, 1)$ lies on line ℓ_7
 744 : $P_{188593} = (48, 1, 45, 1)$ lies on line ℓ_4
 745 : $P_{189086} = (29, 9, 45, 1)$ lies on line ℓ_{13}
 746 : $P_{189770} = (9, 20, 45, 1)$ lies on line ℓ_{10}
 747 : $P_{189861} = (36, 21, 45, 1)$ lies on line ℓ_{11}
 748 : $P_{190301} = (28, 28, 45, 1)$ lies on line ℓ_{15}
 749 : $P_{190834} = (49, 36, 45, 1)$ lies on line ℓ_{14}
 750 : $P_{191601} = (48, 48, 45, 1)$ lies on line ℓ_{12}
 751 : $P_{192074} = (9, 56, 45, 1)$ lies on line ℓ_5
 752 : $P_{192094} = (29, 56, 45, 1)$ lies on line ℓ_8
 753 : $P_{192165} = (36, 57, 45, 1)$ lies on line ℓ_9
 754 : $P_{192178} = (49, 57, 45, 1)$ lies on line ℓ_6
 755 : $P_{192577} = (0, 0, 46, 1)$ lies on line ℓ_3
 756 : $P_{192666} = (25, 1, 46, 1)$ lies on line ℓ_4
 757 : $P_{192695} = (54, 1, 46, 1)$ lies on line ℓ_7
 758 : $P_{193497} = (24, 14, 46, 1)$ lies on line ℓ_{14}
 759 : $P_{193999} = (14, 22, 46, 1)$ lies on line ℓ_{11}
 760 : $P_{194081} = (32, 23, 46, 1)$ lies on line ℓ_{10}
 761 : $P_{194202} = (25, 25, 46, 1)$ lies on line ℓ_{12}
 762 : $P_{194680} = (55, 32, 46, 1)$ lies on line ℓ_{13}
 763 : $P_{196087} = (54, 54, 46, 1)$ lies on line ℓ_{15}
 764 : $P_{196193} = (32, 56, 46, 1)$ lies on line ℓ_5
 765 : $P_{196216} = (55, 56, 46, 1)$ lies on line ℓ_8

766 : $P_{196239} = (14, 57, 46, 1)$ lies on line ℓ_9
 767 : $P_{196249} = (24, 57, 46, 1)$ lies on line ℓ_6
 768 : $P_{196673} = (0, 0, 47, 1)$ lies on line ℓ_3
 769 : $P_{196752} = (15, 1, 47, 1)$ lies on line ℓ_7
 770 : $P_{196770} = (33, 1, 47, 1)$ lies on line ℓ_4
 771 : $P_{197648} = (15, 15, 47, 1)$ lies on line ℓ_{15}
 772 : $P_{198105} = (24, 22, 47, 1)$ lies on line ℓ_{10}
 773 : $P_{198200} = (55, 23, 47, 1)$ lies on line ℓ_{11}
 774 : $P_{198223} = (14, 24, 47, 1)$ lies on line ℓ_{13}
 775 : $P_{198818} = (33, 33, 47, 1)$ lies on line ℓ_{12}
 776 : $P_{200225} = (32, 55, 47, 1)$ lies on line ℓ_{14}
 777 : $P_{200271} = (14, 56, 47, 1)$ lies on line ℓ_8
 778 : $P_{200281} = (24, 56, 47, 1)$ lies on line ℓ_5
 779 : $P_{200353} = (32, 57, 47, 1)$ lies on line ℓ_6
 780 : $P_{200376} = (55, 57, 47, 1)$ lies on line ℓ_9
 781 : $P_{200769} = (0, 0, 48, 1)$ lies on line ℓ_3
 782 : $P_{200854} = (21, 1, 48, 1)$ lies on line ℓ_7
 783 : $P_{200869} = (36, 1, 48, 1)$ lies on line ℓ_4
 784 : $P_{201326} = (45, 8, 48, 1)$ lies on line ℓ_{11}
 785 : $P_{201374} = (29, 9, 48, 1)$ lies on line ℓ_{10}
 786 : $P_{202134} = (21, 21, 48, 1)$ lies on line ℓ_{15}
 787 : $P_{202645} = (20, 29, 48, 1)$ lies on line ℓ_{13}
 788 : $P_{203109} = (36, 36, 48, 1)$ lies on line ℓ_{12}
 789 : $P_{203686} = (37, 45, 48, 1)$ lies on line ℓ_{14}
 790 : $P_{204373} = (20, 56, 48, 1)$ lies on line ℓ_8
 791 : $P_{204382} = (29, 56, 48, 1)$ lies on line ℓ_5
 792 : $P_{204454} = (37, 57, 48, 1)$ lies on line ℓ_6
 793 : $P_{204462} = (45, 57, 48, 1)$ lies on line ℓ_9
 794 : $P_{204865} = (0, 0, 49, 1)$ lies on line ℓ_3
 795 : $P_{204957} = (28, 1, 49, 1)$ lies on line ℓ_4
 796 : $P_{204973} = (44, 1, 49, 1)$ lies on line ℓ_7
 797 : $P_{205414} = (37, 8, 49, 1)$ lies on line ℓ_{10}
 798 : $P_{205461} = (20, 9, 49, 1)$ lies on line ℓ_{11}
 799 : $P_{206174} = (29, 20, 49, 1)$ lies on line ℓ_{14}
 800 : $P_{206685} = (28, 28, 49, 1)$ lies on line ℓ_{12}
 801 : $P_{207278} = (45, 37, 49, 1)$ lies on line ℓ_{13}
 802 : $P_{207725} = (44, 44, 49, 1)$ lies on line ℓ_{15}
 803 : $P_{208486} = (37, 56, 49, 1)$ lies on line ℓ_5
 804 : $P_{208494} = (45, 56, 49, 1)$ lies on line ℓ_8
 805 : $P_{208533} = (20, 57, 49, 1)$ lies on line ℓ_9
 806 : $P_{208542} = (29, 57, 49, 1)$ lies on line ℓ_6
 807 : $P_{208961} = (0, 0, 50, 1)$ lies on line ℓ_3
 808 : $P_{209031} = (6, 1, 50, 1)$ lies on line ℓ_7
 809 : $P_{209078} = (53, 1, 50, 1)$ lies on line ℓ_4
 810 : $P_{209351} = (6, 6, 50, 1)$ lies on line ℓ_{15}
 811 : $P_{209663} = (62, 10, 50, 1)$ lies on line ℓ_{11}
 812 : $P_{209677} = (12, 11, 50, 1)$ lies on line ℓ_{10}
 813 : $P_{209736} = (7, 12, 50, 1)$ lies on line ℓ_{13}
 814 : $P_{212406} = (53, 53, 50, 1)$ lies on line ℓ_{12}
 815 : $P_{212552} = (7, 56, 50, 1)$ lies on line ℓ_8
 816 : $P_{212557} = (12, 56, 50, 1)$ lies on line ℓ_5
 817 : $P_{212661} = (52, 57, 50, 1)$ lies on line ℓ_6
 818 : $P_{212671} = (62, 57, 50, 1)$ lies on line ℓ_9
 819 : $P_{212981} = (52, 62, 50, 1)$ lies on line ℓ_{14}

820 : $P_{213057} = (0, 0, 51, 1)$ lies on line ℓ_3
 821 : $P_{213134} = (13, 1, 51, 1)$ lies on line ℓ_4
 822 : $P_{213184} = (63, 1, 51, 1)$ lies on line ℓ_7
 823 : $P_{213517} = (12, 7, 51, 1)$ lies on line ℓ_{14}
 824 : $P_{213749} = (52, 10, 51, 1)$ lies on line ℓ_{10}
 825 : $P_{213768} = (7, 11, 51, 1)$ lies on line ℓ_{11}
 826 : $P_{213902} = (13, 13, 51, 1)$ lies on line ℓ_{12}
 827 : $P_{216447} = (62, 52, 51, 1)$ lies on line ℓ_{13}
 828 : $P_{216693} = (52, 56, 51, 1)$ lies on line ℓ_5
 829 : $P_{216703} = (62, 56, 51, 1)$ lies on line ℓ_8
 830 : $P_{216712} = (7, 57, 51, 1)$ lies on line ℓ_9
 831 : $P_{216717} = (12, 57, 51, 1)$ lies on line ℓ_6
 832 : $P_{217152} = (63, 63, 51, 1)$ lies on line ℓ_{15}
 833 : $P_{217153} = (0, 0, 52, 1)$ lies on line ℓ_3
 834 : $P_{217223} = (6, 1, 52, 1)$ lies on line ℓ_4
 835 : $P_{217268} = (51, 1, 52, 1)$ lies on line ℓ_7
 836 : $P_{217543} = (6, 6, 52, 1)$ lies on line ℓ_{12}
 837 : $P_{217864} = (7, 11, 52, 1)$ lies on line ℓ_{14}
 838 : $P_{217932} = (11, 12, 52, 1)$ lies on line ℓ_{11}
 839 : $P_{218048} = (63, 13, 52, 1)$ lies on line ℓ_{10}
 840 : $P_{220468} = (51, 51, 52, 1)$ lies on line ℓ_{15}
 841 : $P_{220787} = (50, 56, 52, 1)$ lies on line ℓ_8
 842 : $P_{220800} = (63, 56, 52, 1)$ lies on line ℓ_5
 843 : $P_{220808} = (7, 57, 52, 1)$ lies on line ℓ_6
 844 : $P_{220812} = (11, 57, 52, 1)$ lies on line ℓ_9
 845 : $P_{221235} = (50, 63, 52, 1)$ lies on line ℓ_{13}
 846 : $P_{221249} = (0, 0, 53, 1)$ lies on line ℓ_3
 847 : $P_{221323} = (10, 1, 53, 1)$ lies on line ℓ_7
 848 : $P_{221375} = (62, 1, 53, 1)$ lies on line ℓ_4
 849 : $P_{221708} = (11, 7, 53, 1)$ lies on line ℓ_{13}
 850 : $P_{221899} = (10, 10, 53, 1)$ lies on line ℓ_{15}
 851 : $P_{222024} = (7, 12, 53, 1)$ lies on line ℓ_{10}
 852 : $P_{222131} = (50, 13, 53, 1)$ lies on line ℓ_{11}
 853 : $P_{224512} = (63, 50, 53, 1)$ lies on line ℓ_{14}
 854 : $P_{224840} = (7, 56, 53, 1)$ lies on line ℓ_5
 855 : $P_{224844} = (11, 56, 53, 1)$ lies on line ℓ_8
 856 : $P_{224947} = (50, 57, 53, 1)$ lies on line ℓ_9
 857 : $P_{224960} = (63, 57, 53, 1)$ lies on line ℓ_6
 858 : $P_{225279} = (62, 62, 53, 1)$ lies on line ℓ_{12}
 859 : $P_{225345} = (0, 0, 54, 1)$ lies on line ℓ_3
 860 : $P_{225432} = (23, 1, 54, 1)$ lies on line ℓ_4
 861 : $P_{225441} = (32, 1, 54, 1)$ lies on line ℓ_7
 862 : $P_{226265} = (24, 14, 54, 1)$ lies on line ℓ_{11}
 863 : $P_{226351} = (46, 15, 54, 1)$ lies on line ℓ_{10}
 864 : $P_{226840} = (23, 23, 54, 1)$ lies on line ℓ_{12}
 865 : $P_{226903} = (22, 24, 54, 1)$ lies on line ℓ_{14}
 866 : $P_{227425} = (32, 32, 54, 1)$ lies on line ℓ_{15}
 867 : $P_{228322} = (33, 46, 54, 1)$ lies on line ℓ_{13}
 868 : $P_{228962} = (33, 56, 54, 1)$ lies on line ℓ_8
 869 : $P_{228975} = (46, 56, 54, 1)$ lies on line ℓ_5
 870 : $P_{229015} = (22, 57, 54, 1)$ lies on line ℓ_6
 871 : $P_{229017} = (24, 57, 54, 1)$ lies on line ℓ_9
 872 : $P_{229441} = (0, 0, 55, 1)$ lies on line ℓ_3
 873 : $P_{229530} = (25, 1, 55, 1)$ lies on line ℓ_7

874 : $P_{229552} = (47, 1, 55, 1)$ lies on line ℓ_4
 875 : $P_{230359} = (22, 14, 55, 1)$ lies on line ℓ_{10}
 876 : $P_{230434} = (33, 15, 55, 1)$ lies on line ℓ_{11}
 877 : $P_{230873} = (24, 22, 55, 1)$ lies on line ℓ_{13}
 878 : $P_{231066} = (25, 25, 55, 1)$ lies on line ℓ_{15}
 879 : $P_{231599} = (46, 33, 55, 1)$ lies on line ℓ_{14}
 880 : $P_{232496} = (47, 47, 55, 1)$ lies on line ℓ_{12}
 881 : $P_{233047} = (22, 56, 55, 1)$ lies on line ℓ_5
 882 : $P_{233049} = (24, 56, 55, 1)$ lies on line ℓ_8
 883 : $P_{233122} = (33, 57, 55, 1)$ lies on line ℓ_9
 884 : $P_{233135} = (46, 57, 55, 1)$ lies on line ℓ_6
 885 : $P_{241729} = (0, 0, 58, 1)$ lies on line ℓ_3
 886 : $P_{241809} = (16, 1, 58, 1)$ lies on line ℓ_4
 887 : $P_{241836} = (43, 1, 58, 1)$ lies on line ℓ_7
 888 : $P_{241876} = (19, 2, 58, 1)$ lies on line ℓ_{11}
 889 : $P_{241962} = (41, 3, 58, 1)$ lies on line ℓ_{10}
 890 : $P_{242769} = (16, 16, 58, 1)$ lies on line ℓ_{12}
 891 : $P_{242962} = (17, 19, 58, 1)$ lies on line ℓ_{14}
 892 : $P_{244395} = (42, 41, 58, 1)$ lies on line ℓ_{13}
 893 : $P_{244524} = (43, 43, 58, 1)$ lies on line ℓ_{15}
 894 : $P_{245354} = (41, 56, 58, 1)$ lies on line ℓ_5
 895 : $P_{245355} = (42, 56, 58, 1)$ lies on line ℓ_8
 896 : $P_{245394} = (17, 57, 58, 1)$ lies on line ℓ_6
 897 : $P_{245396} = (19, 57, 58, 1)$ lies on line ℓ_9
 898 : $P_{245825} = (0, 0, 59, 1)$ lies on line ℓ_3
 899 : $P_{245907} = (18, 1, 59, 1)$ lies on line ℓ_7
 900 : $P_{245929} = (40, 1, 59, 1)$ lies on line ℓ_4
 901 : $P_{245970} = (17, 2, 59, 1)$ lies on line ℓ_{10}
 902 : $P_{246059} = (42, 3, 59, 1)$ lies on line ℓ_{11}
 903 : $P_{246932} = (19, 17, 59, 1)$ lies on line ℓ_{13}
 904 : $P_{246995} = (18, 18, 59, 1)$ lies on line ℓ_{15}
 905 : $P_{248425} = (40, 40, 59, 1)$ lies on line ℓ_{12}
 906 : $P_{248554} = (41, 42, 59, 1)$ lies on line ℓ_{14}
 907 : $P_{249426} = (17, 56, 59, 1)$ lies on line ℓ_5
 908 : $P_{249428} = (19, 56, 59, 1)$ lies on line ℓ_8
 909 : $P_{249514} = (41, 57, 59, 1)$ lies on line ℓ_6
 910 : $P_{249515} = (42, 57, 59, 1)$ lies on line ℓ_9
 911 : $P_{249921} = (0, 0, 60, 1)$ lies on line ℓ_3
 912 : $P_{250015} = (30, 1, 60, 1)$ lies on line ℓ_7
 913 : $P_{250020} = (35, 1, 60, 1)$ lies on line ℓ_4
 914 : $P_{250215} = (38, 4, 60, 1)$ lies on line ℓ_{11}
 915 : $P_{250267} = (26, 5, 60, 1)$ lies on line ℓ_{10}
 916 : $P_{251616} = (31, 26, 60, 1)$ lies on line ℓ_{13}
 917 : $P_{251871} = (30, 30, 60, 1)$ lies on line ℓ_{15}
 918 : $P_{252196} = (35, 35, 60, 1)$ lies on line ℓ_{12}
 919 : $P_{252387} = (34, 38, 60, 1)$ lies on line ℓ_{14}
 920 : $P_{253531} = (26, 56, 60, 1)$ lies on line ℓ_5
 921 : $P_{253536} = (31, 56, 60, 1)$ lies on line ℓ_8
 922 : $P_{253603} = (34, 57, 60, 1)$ lies on line ℓ_6
 923 : $P_{253607} = (38, 57, 60, 1)$ lies on line ℓ_9
 924 : $P_{254017} = (0, 0, 61, 1)$ lies on line ℓ_3
 925 : $P_{254108} = (27, 1, 61, 1)$ lies on line ℓ_4
 926 : $P_{254120} = (39, 1, 61, 1)$ lies on line ℓ_7
 927 : $P_{254307} = (34, 4, 61, 1)$ lies on line ℓ_{10}

928 : $P_{254368} = (31, 5, 61, 1)$ lies on line ℓ_{11}
 929 : $P_{255772} = (27, 27, 61, 1)$ lies on line ℓ_{12}
 930 : $P_{256027} = (26, 31, 61, 1)$ lies on line ℓ_{14}
 931 : $P_{256231} = (38, 34, 61, 1)$ lies on line ℓ_{13}
 932 : $P_{256552} = (39, 39, 61, 1)$ lies on line ℓ_{15}
 933 : $P_{257635} = (34, 56, 61, 1)$ lies on line ℓ_5
 934 : $P_{257639} = (38, 56, 61, 1)$ lies on line ℓ_8
 935 : $P_{257691} = (26, 57, 61, 1)$ lies on line ℓ_6
 936 : $P_{257696} = (31, 57, 61, 1)$ lies on line ℓ_9
 937 : $P_{258113} = (0, 0, 62, 1)$ lies on line ℓ_3
 938 : $P_{258190} = (13, 1, 62, 1)$ lies on line ℓ_7
 939 : $P_{258227} = (50, 1, 62, 1)$ lies on line ℓ_4
 940 : $P_{258550} = (53, 6, 62, 1)$ lies on line ℓ_{11}
 941 : $P_{258572} = (11, 7, 62, 1)$ lies on line ℓ_{10}
 942 : $P_{258829} = (12, 11, 62, 1)$ lies on line ℓ_{13}
 943 : $P_{258958} = (13, 13, 62, 1)$ lies on line ℓ_{15}
 944 : $P_{261363} = (50, 50, 62, 1)$ lies on line ℓ_{12}
 945 : $P_{261556} = (51, 53, 62, 1)$ lies on line ℓ_{14}
 946 : $P_{261708} = (11, 56, 62, 1)$ lies on line ℓ_5
 947 : $P_{261709} = (12, 56, 62, 1)$ lies on line ℓ_8
 948 : $P_{261812} = (51, 57, 62, 1)$ lies on line ℓ_6
 949 : $P_{261814} = (53, 57, 62, 1)$ lies on line ℓ_9
 950 : $P_{262209} = (0, 0, 63, 1)$ lies on line ℓ_3
 951 : $P_{262283} = (10, 1, 63, 1)$ lies on line ℓ_4
 952 : $P_{262325} = (52, 1, 63, 1)$ lies on line ℓ_7
 953 : $P_{262644} = (51, 6, 63, 1)$ lies on line ℓ_{10}
 954 : $P_{262669} = (12, 7, 63, 1)$ lies on line ℓ_{11}
 955 : $P_{262859} = (10, 10, 63, 1)$ lies on line ℓ_{12}
 956 : $P_{262988} = (11, 12, 63, 1)$ lies on line ℓ_{14}
 957 : $P_{265526} = (53, 51, 63, 1)$ lies on line ℓ_{13}
 958 : $P_{265589} = (52, 52, 63, 1)$ lies on line ℓ_{15}
 959 : $P_{265844} = (51, 56, 63, 1)$ lies on line ℓ_5
 960 : $P_{265846} = (53, 56, 63, 1)$ lies on line ℓ_8
 961 : $P_{265868} = (11, 57, 63, 1)$ lies on line ℓ_6
 962 : $P_{265869} = (12, 57, 63, 1)$ lies on line ℓ_9

The single points on the surface are:

Points on surface but on no line

The surface has 3420 points not on any line:
Too many to print.

Line Intersection Graph

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|----|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| 2 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 5 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 6 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| 7 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 8 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| 9 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 10 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 11 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 12 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 13 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 15 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 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 |
|----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| in point | P_{124} | P_{123} | P_2 | P_{123} | P_{123} | P_{123} | P_{124} | P_{124} | P_{124} |

Line 1 intersects

| Line | ℓ_0 | ℓ_2 | ℓ_7 | ℓ_8 | ℓ_9 | ℓ_{11} | ℓ_{13} | ℓ_{15} |
|----------|-----------|----------|-----------|-----------|-----------|-------------|-------------|-------------|
| in point | P_{124} | P_1 | P_{124} | P_{124} | P_{124} | P_{188} | P_{3708} | P_{3772} |

Line 2 intersects

| Line | ℓ_0 | ℓ_1 | ℓ_4 | ℓ_5 | ℓ_6 | ℓ_{10} | ℓ_{12} | ℓ_{14} |
|----------|-----------|----------|-----------|-----------|-----------|-------------|-------------|-------------|
| in point | P_{123} | P_1 | P_{123} | P_{123} | P_{123} | P_{187} | P_{3707} | P_{3771} |

Line 3 intersects

| Line | ℓ_0 | ℓ_{10} | ℓ_{11} | ℓ_{12} | ℓ_{13} | ℓ_{14} | ℓ_{15} |
|----------|----------|--------------|--------------|-------------|--------------|--------------|-------------|
| in point | P_2 | P_{237633} | P_{233537} | P_{8258} | P_{237633} | P_{233537} | P_{8258} |

Line 4 intersects

| Line | ℓ_0 | ℓ_2 | ℓ_5 | ℓ_6 | ℓ_7 | ℓ_{11} | ℓ_{12} | ℓ_{13} |
|----------|-----------|-----------|-----------|-----------|------------|--------------|--------------|-------------|
| in point | P_{123} | P_{123} | P_{123} | P_{123} | P_{8322} | P_{237754} | P_{233602} | P_{4282} |

Line 5 intersects

| Line | ℓ_0 | ℓ_2 | ℓ_4 | ℓ_6 | ℓ_8 | ℓ_{10} | ℓ_{11} | ℓ_{15} |
|----------|-----------|-----------|-----------|-----------|--------------|-------------|-------------|--------------|
| in point | P_{123} | P_{123} | P_{123} | P_{123} | P_{241217} | P_{11898} | P_{7747} | P_{237177} |

Line 6 intersects

| Line | ℓ_0 | ℓ_2 | ℓ_4 | ℓ_5 | ℓ_9 | ℓ_{13} | ℓ_{14} | ℓ_{15} |
|----------|-----------|-----------|-----------|-----------|--------------|-------------|--------------|-------------|
| in point | P_{123} | P_{123} | P_{123} | P_{123} | P_{237185} | P_{11906} | P_{241337} | P_{7867} |

Line 7 intersects

| Line | ℓ_0 | ℓ_1 | ℓ_4 | ℓ_8 | ℓ_9 | ℓ_{10} | ℓ_{14} | ℓ_{15} |
|----------|-----------|-----------|------------|-----------|-----------|--------------|-------------|--------------|
| in point | P_{124} | P_{124} | P_{8322} | P_{124} | P_{124} | P_{233657} | P_{4283} | P_{237698} |

Line 8 intersects

| Line | ℓ_0 | ℓ_1 | ℓ_5 | ℓ_7 | ℓ_9 | ℓ_{12} | ℓ_{13} | ℓ_{14} |
|----------|-----------|-----------|--------------|-----------|-----------|-------------|--------------|-------------|
| in point | P_{124} | P_{124} | P_{241217} | P_{124} | P_{124} | P_{7802} | P_{237178} | P_{11842} |

Line 9 intersects

| Line | ℓ_0 | ℓ_1 | ℓ_6 | ℓ_7 | ℓ_8 | ℓ_{10} | ℓ_{11} | ℓ_{12} |
|----------|-----------|-----------|--------------|-----------|-----------|-------------|-------------|--------------|
| in point | P_{124} | P_{124} | P_{237185} | P_{124} | P_{124} | P_{7811} | P_{11961} | P_{241338} |

Line 10 intersects

| Line | ℓ_2 | ℓ_3 | ℓ_5 | ℓ_7 | ℓ_9 | ℓ_{13} |
|----------|-----------|--------------|-------------|--------------|------------|--------------|
| in point | P_{187} | P_{237633} | P_{11898} | P_{233657} | P_{7811} | P_{237633} |

Line 11 intersects

| Line | ℓ_1 | ℓ_3 | ℓ_4 | ℓ_5 | ℓ_9 | ℓ_{14} |
|----------|-----------|--------------|--------------|------------|-------------|--------------|
| in point | P_{188} | P_{233537} | P_{237754} | P_{7747} | P_{11961} | P_{233537} |

Line 12 intersects

| Line | ℓ_2 | ℓ_3 | ℓ_4 | ℓ_8 | ℓ_9 | ℓ_{15} |
|----------|------------|------------|--------------|------------|--------------|-------------|
| in point | P_{3707} | P_{8258} | P_{233602} | P_{7802} | P_{241338} | P_{8258} |

Line 13 intersects

| Line | ℓ_1 | ℓ_3 | ℓ_4 | ℓ_6 | ℓ_8 | ℓ_{10} |
|----------|------------|--------------|------------|-------------|--------------|--------------|
| in point | P_{3708} | P_{237633} | P_{4282} | P_{11906} | P_{237178} | P_{237633} |

Line 14 intersects

| Line | ℓ_2 | ℓ_3 | ℓ_6 | ℓ_7 | ℓ_8 | ℓ_{11} |
|----------|------------|--------------|--------------|------------|-------------|--------------|
| in point | P_{3771} | P_{233537} | P_{241337} | P_{4283} | P_{11842} | P_{233537} |

Line 15 intersects

| Line | ℓ_1 | ℓ_3 | ℓ_5 | ℓ_6 | ℓ_7 | ℓ_{12} |
|----------|------------|------------|--------------|------------|--------------|-------------|
| in point | P_{3772} | P_{8258} | P_{237177} | P_{7867} | P_{237698} | P_{8258} |

The surface has 4417 points:

Too many to print.