

Rank-67243 over GF(64)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(64) is -2130177979

General information

Number of lines	16
Number of points	4417
Number of singular points	2
Number of Eckardt points	0
Number of double points	38
Number of single points	954
Number of points off lines	3423
Number of Hesse planes	0
Number of axes	0
Type of points on lines	65^{16}
Type of lines on points	$5^2, 2^{38}, 1^{954}, 0^{3423}$

Singular Points

The surface has 2 singular points:

$$0 : P_{233601} = \mathbf{P}(0, 1, \epsilon^{42}, 1) = \mathbf{P}(0, 1, 56, 1)$$

$$1 : P_{237697} = \mathbf{P}(0, 1, \epsilon^{21}, 1) = \mathbf{P}(0, 1, 57, 1)$$

The 16 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \left[\begin{array}{cccc} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{array} \right]_{17043456} = \left[\begin{array}{cccc} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{array} \right]_{17043456} = \mathbf{Pl}(0, 0, 0, 0, 0, 1)_{270401}$$

$$\begin{aligned}
\ell_1 &= \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17043521} = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17043521} = \mathbf{Pl}(0, 1, 0, 0, 0, 1)_{270465} \\
\ell_2 &= \begin{bmatrix} 1 & 0 & \epsilon^{42} & 1 \\ 0 & 1 & \epsilon^{21} & 1 \end{bmatrix}_{499441} = \begin{bmatrix} 1 & 0 & 56 & 1 \\ 0 & 1 & 57 & 1 \end{bmatrix}_{499441} = \mathbf{Pl}(56, 57, 56, 57, 57, 1)_{15447346} \\
\ell_3 &= \begin{bmatrix} 1 & 0 & \epsilon^{21} & 1 \\ 0 & 1 & \epsilon^{42} & 1 \end{bmatrix}_{503601} = \begin{bmatrix} 1 & 0 & 57 & 1 \\ 0 & 1 & 56 & 1 \end{bmatrix}_{503601} = \mathbf{Pl}(57, 56, 57, 56, 56, 1)_{15189236} \\
\ell_4 &= \begin{bmatrix} 1 & 0 & \epsilon^{26} & \epsilon^{36} \\ 0 & 1 & \epsilon^{42} & 1 \end{bmatrix}_{9682767} = \begin{bmatrix} 1 & 0 & 23 & 36 \\ 0 & 1 & 56 & 1 \end{bmatrix}_{9682767} = \mathbf{Pl}(59, 51, 5, 63, 41, 1)_{11054485} \\
\ell_5 &= \begin{bmatrix} 1 & 0 & \epsilon^{41} & \epsilon^{18} \\ 0 & 1 & \epsilon^{41} & 0 \end{bmatrix}_{3045880} = \begin{bmatrix} 1 & 0 & 28 & 11 \\ 0 & 1 & 28 & 0 \end{bmatrix}_{3045880} = \mathbf{Pl}(37, 11, 1, 14, 0, 1)_{338163} \\
\ell_6 &= \begin{bmatrix} 1 & 0 & \epsilon^{13} & \epsilon^{18} \\ 0 & 1 & \epsilon^{21} & 1 \end{bmatrix}_{3050134} = \begin{bmatrix} 1 & 0 & 29 & 11 \\ 0 & 1 & 57 & 1 \end{bmatrix}_{3050134} = \mathbf{Pl}(34, 22, 3, 32, 60, 1)_{16024467} \\
\ell_7 &= \begin{bmatrix} 1 & 0 & \epsilon^{52} & \epsilon^9 \\ 0 & 1 & \epsilon^{52} & 0 \end{bmatrix}_{12724388} = \begin{bmatrix} 1 & 0 & 50 & 47 \\ 0 & 1 & 50 & 0 \end{bmatrix}_{12724388} = \mathbf{Pl}(10, 47, 1, 44, 0, 1)_{457206} \\
\ell_8 &= \begin{bmatrix} 1 & 0 & \epsilon^{19} & \epsilon^{36} \\ 0 & 1 & \epsilon^{19} & 0 \end{bmatrix}_{9678508} = \begin{bmatrix} 1 & 0 & 22 & 36 \\ 0 & 1 & 22 & 0 \end{bmatrix}_{9678508} = \mathbf{Pl}(46, 36, 1, 53, 0, 1)_{492963} \\
\ell_9 &= \begin{bmatrix} 1 & 0 & \epsilon^{52} & \epsilon^9 \\ 0 & 1 & \epsilon^{21} & 1 \end{bmatrix}_{12724459} = \begin{bmatrix} 1 & 0 & 50 & 47 \\ 0 & 1 & 57 & 1 \end{bmatrix}_{12724459} = \mathbf{Pl}(60, 29, 17, 44, 31, 1)_{8479172} \\
\ell_{10} &= \begin{bmatrix} 1 & 0 & \epsilon^{38} & \epsilon^9 \\ 0 & 1 & \epsilon^{42} & 1 \end{bmatrix}_{12728619} = \begin{bmatrix} 1 & 0 & 51 & 47 \\ 0 & 1 & 56 & 1 \end{bmatrix}_{12728619} = \mathbf{Pl}(19, 28, 27, 9, 59, 1)_{15856494} \\
\ell_{11} &= \begin{bmatrix} 1 & 0 & \epsilon^{26} & \epsilon^{36} \\ 0 & 1 & \epsilon^{26} & 0 \end{bmatrix}_{9682670} = \begin{bmatrix} 1 & 0 & 23 & 36 \\ 0 & 1 & 23 & 0 \end{bmatrix}_{9682670} = \mathbf{Pl}(46, 36, 1, 63, 0, 1)_{532653} \\
\ell_{12} &= \begin{bmatrix} 1 & 0 & \epsilon^{41} & \epsilon^{18} \\ 0 & 1 & \epsilon^{42} & 1 \end{bmatrix}_{3045972} = \begin{bmatrix} 1 & 0 & 28 & 11 \\ 0 & 1 & 56 & 1 \end{bmatrix}_{3045972} = \mathbf{Pl}(41, 23, 38, 14, 19, 1)_{5415841} \\
\ell_{13} &= \begin{bmatrix} 1 & 0 & \epsilon^{38} & \epsilon^9 \\ 0 & 1 & \epsilon^{38} & 0 \end{bmatrix}_{12728550} = \begin{bmatrix} 1 & 0 & 51 & 47 \\ 0 & 1 & 51 & 0 \end{bmatrix}_{12728550} = \mathbf{Pl}(10, 47, 1, 9, 0, 1)_{318291} \\
\ell_{14} &= \begin{bmatrix} 1 & 0 & \epsilon^{13} & \epsilon^{18} \\ 0 & 1 & \epsilon^{13} & 0 \end{bmatrix}_{3050042} = \begin{bmatrix} 1 & 0 & 29 & 11 \\ 0 & 1 & 29 & 0 \end{bmatrix}_{3050042} = \mathbf{Pl}(37, 11, 1, 32, 0, 1)_{409605} \\
\ell_{15} &= \begin{bmatrix} 1 & 0 & \epsilon^{19} & \epsilon^{36} \\ 0 & 1 & \epsilon^{21} & 1 \end{bmatrix}_{9678607} = \begin{bmatrix} 1 & 0 & 22 & 36 \\ 0 & 1 & 57 & 1 \end{bmatrix}_{9678607} = \mathbf{Pl}(31, 50, 43, 53, 34, 1)_{9368388}
\end{aligned}$$

Rank of lines: (17043456, 17043521, 499441, 503601, 9682767, 3045880, 3050134, 12724388, 9678508, 12724459, 12728619, 9682670, 3045972, 12728550, 3050042, 9678607)

Rank of points on Klein quadric: (270401, 270465, 15447346, 15189236, 11054485, 338163, 16024467, 457206, 492963, 8479172, 15856494, 532653, 5415841, 318291, 409605, 9368388)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 38 Double points:

The double points on the surface are:

$$\begin{aligned}
P_2 &= (0, 0, 1, 0) = \ell_0 \cap \ell_1 \\
P_{1283} &= (0, 19, 1, 0) = \ell_0 \cap \ell_5 \\
P_{2051} &= (0, 31, 1, 0) = \ell_0 \cap \ell_7 \\
P_{2243} &= (0, 34, 1, 0) = \ell_0 \cap \ell_8 \\
P_{2691} &= (0, 41, 1, 0) = \ell_0 \cap \ell_{11} \\
P_{3843} &= (0, 59, 1, 0) = \ell_0 \cap \ell_{13} \\
P_{3907} &= (0, 60, 1, 0) = \ell_0 \cap \ell_{14} \\
P_{132} &= (1, 1, 1, 0) = \ell_2 \cap \ell_3 \\
P_{121190} &= (37, 36, 28, 1) = \ell_2 \cap \ell_5 \\
P_{101423} &= (46, 47, 23, 1) = \ell_2 \cap \ell_{11} \\
P_{213771} &= (10, 11, 51, 1) = \ell_2 \cap \ell_{13} \\
P_{209675} &= (10, 11, 50, 1) = \ell_3 \cap \ell_7 \\
P_{97327} &= (46, 47, 22, 1) = \ell_3 \cap \ell_8 \\
P_{125286} &= (37, 36, 29, 1) = \ell_3 \cap \ell_{14} \\
P_{24687} &= (46, 0, 5, 1) = \ell_4 \cap \ell_{11} \\
P_{187403} &= (10, 47, 44, 1) = \ell_4 \cap \ell_{13} \\
P_{82662} &= (37, 10, 19, 1) = \ell_4 \cap \ell_{14} \\
P_{193292} &= (11, 11, 46, 1) = \ell_4 \cap \ell_{15} \\
P_{135974} &= (37, 11, 32, 1) = \ell_5 \cap \ell_{10} \\
P_{159846} &= (37, 0, 38, 1) = \ell_5 \cap \ell_{12}
\end{aligned}$$

$$\begin{aligned}
P_{6567} &= (37, 37, 0, 1) = \ell_5 \cap \ell_{14} \\
P_{250598} &= (37, 10, 60, 1) = \ell_5 \cap \ell_{15} \\
P_{264559} &= (46, 36, 63, 1) = \ell_6 \cap \ell_8 \\
P_{158768} &= (47, 47, 37, 1) = \ell_6 \cap \ell_{12} \\
P_{134091} &= (10, 46, 31, 1) = \ell_6 \cap \ell_{13} \\
P_{16486} &= (37, 0, 3, 1) = \ell_6 \cap \ell_{14} \\
P_{73803} &= (10, 0, 17, 1) = \ell_7 \cap \ell_9 \\
P_{248779} &= (10, 46, 59, 1) = \ell_7 \cap \ell_{12} \\
P_{4812} &= (10, 10, 0, 1) = \ell_7 \cap \ell_{13} \\
P_{44043} &= (10, 47, 9, 1) = \ell_7 \cap \ell_{15} \\
P_{174511} &= (46, 37, 41, 1) = \ell_8 \cap \ell_{10} \\
P_{7152} &= (46, 46, 0, 1) = \ell_8 \cap \ell_{11} \\
P_{180335} &= (46, 0, 43, 1) = \ell_8 \cap \ell_{15} \\
P_{47461} &= (36, 36, 10, 1) = \ell_9 \cap \ell_{10} \\
P_{145839} &= (46, 37, 34, 1) = \ell_9 \cap \ell_{11} \\
P_{62246} &= (37, 11, 14, 1) = \ell_9 \cap \ell_{14} \\
P_{114763} &= (10, 0, 27, 1) = \ell_{10} \cap \ell_{13} \\
P_{223599} &= (46, 36, 53, 1) = \ell_{11} \cap \ell_{12}
\end{aligned}$$

Single Points

The surface has 954 single points:
The single points on the surface are:

$$\begin{aligned}
0 : P_1 &= (0, 1, 0, 0) \text{ lies on line } \ell_0 \\
1 : P_{131} &= (0, 1, 1, 0) \text{ lies on line } \ell_0 \\
2 : P_{195} &= (0, 2, 1, 0) \text{ lies on line } \ell_0 \\
3 : P_{259} &= (0, 3, 1, 0) \text{ lies on line } \ell_0 \\
4 : P_{323} &= (0, 4, 1, 0) \text{ lies on line } \ell_0 \\
5 : P_{387} &= (0, 5, 1, 0) \text{ lies on line } \ell_0 \\
6 : P_{451} &= (0, 6, 1, 0) \text{ lies on line } \ell_0 \\
7 : P_{515} &= (0, 7, 1, 0) \text{ lies on line } \ell_0 \\
8 : P_{579} &= (0, 8, 1, 0) \text{ lies on line } \ell_0 \\
9 : P_{643} &= (0, 9, 1, 0) \text{ lies on line } \ell_0 \\
10 : P_{707} &= (0, 10, 1, 0) \text{ lies on line } \ell_0 \\
11 : P_{771} &= (0, 11, 1, 0) \text{ lies on line } \ell_0 \\
12 : P_{835} &= (0, 12, 1, 0) \text{ lies on line } \ell_0 \\
13 : P_{899} &= (0, 13, 1, 0) \text{ lies on line } \ell_0 \\
14 : P_{963} &= (0, 14, 1, 0) \text{ lies on line } \ell_0 \\
15 : P_{1027} &= (0, 15, 1, 0) \text{ lies on line } \ell_0 \\
16 : P_{1091} &= (0, 16, 1, 0) \text{ lies on line } \ell_0 \\
17 : P_{1155} &= (0, 17, 1, 0) \text{ lies on line } \ell_0 \\
18 : P_{1219} &= (0, 18, 1, 0) \text{ lies on line } \ell_0 \\
19 : P_{1267} &= (48, 18, 1, 0) \text{ lies on line } \ell_4 \\
20 : P_{1347} &= (0, 20, 1, 0) \text{ lies on line } \ell_0 \\
21 : P_{1411} &= (0, 21, 1, 0) \text{ lies on line } \ell_0 \\
22 : P_{1475} &= (0, 22, 1, 0) \text{ lies on line } \ell_0 \\
23 : P_{1539} &= (0, 23, 1, 0) \text{ lies on line } \ell_0 \\
24 : P_{1603} &= (0, 24, 1, 0) \text{ lies on line } \ell_0 \\
25 : P_{1667} &= (0, 25, 1, 0) \text{ lies on line } \ell_0 \\
26 : P_{1731} &= (0, 26, 1, 0) \text{ lies on line } \ell_0
\end{aligned}$$

$$\begin{aligned}
27 : P_{1795} &= (0, 27, 1, 0) \text{ lies on line } \ell_0 \\
28 : P_{1859} &= (0, 28, 1, 0) \text{ lies on line } \ell_0 \\
29 : P_{1923} &= (0, 29, 1, 0) \text{ lies on line } \ell_0 \\
30 : P_{1987} &= (0, 30, 1, 0) \text{ lies on line } \ell_0 \\
31 : P_{2000} &= (13, 30, 1, 0) \text{ lies on line } \ell_6 \\
32 : P_{2115} &= (0, 32, 1, 0) \text{ lies on line } \ell_0 \\
33 : P_{2179} &= (0, 33, 1, 0) \text{ lies on line } \ell_0 \\
34 : P_{2307} &= (0, 35, 1, 0) \text{ lies on line } \ell_0 \\
35 : P_{2331} &= (24, 35, 1, 0) \text{ lies on line } \ell_9 \\
36 : P_{2371} &= (0, 36, 1, 0) \text{ lies on line } \ell_0 \\
37 : P_{2435} &= (0, 37, 1, 0) \text{ lies on line } \ell_0 \\
38 : P_{2499} &= (0, 38, 1, 0) \text{ lies on line } \ell_0 \\
39 : P_{2563} &= (0, 39, 1, 0) \text{ lies on line } \ell_0 \\
40 : P_{2627} &= (0, 40, 1, 0) \text{ lies on line } \ell_0 \\
41 : P_{2682} &= (55, 40, 1, 0) \text{ lies on line } \ell_{10} \\
42 : P_{2755} &= (0, 42, 1, 0) \text{ lies on line } \ell_0 \\
43 : P_{2819} &= (0, 43, 1, 0) \text{ lies on line } \ell_0 \\
44 : P_{2883} &= (0, 44, 1, 0) \text{ lies on line } \ell_0 \\
45 : P_{2947} &= (0, 45, 1, 0) \text{ lies on line } \ell_0 \\
46 : P_{3011} &= (0, 46, 1, 0) \text{ lies on line } \ell_0 \\
47 : P_{3075} &= (0, 47, 1, 0) \text{ lies on line } \ell_0 \\
48 : P_{3139} &= (0, 48, 1, 0) \text{ lies on line } \ell_0 \\
49 : P_{3203} &= (0, 49, 1, 0) \text{ lies on line } \ell_0 \\
50 : P_{3267} &= (0, 50, 1, 0) \text{ lies on line } \ell_0 \\
51 : P_{3331} &= (0, 51, 1, 0) \text{ lies on line } \ell_0 \\
52 : P_{3395} &= (0, 52, 1, 0) \text{ lies on line } \ell_0 \\
53 : P_{3459} &= (0, 53, 1, 0) \text{ lies on line } \ell_0
\end{aligned}$$

54 : $P_{3523} = (0, 54, 1, 0)$ lies on line ℓ_0
 55 : $P_{3587} = (0, 55, 1, 0)$ lies on line ℓ_0
 56 : $P_{3651} = (0, 56, 1, 0)$ lies on line ℓ_0
 57 : $P_{3715} = (0, 57, 1, 0)$ lies on line ℓ_0
 58 : $P_{3779} = (0, 58, 1, 0)$ lies on line ℓ_0
 59 : $P_{3785} = (6, 58, 1, 0)$ lies on line ℓ_{12}
 60 : $P_{3971} = (0, 61, 1, 0)$ lies on line ℓ_0
 61 : $P_{3991} = (20, 61, 1, 0)$ lies on line ℓ_{15}
 62 : $P_{4035} = (0, 62, 1, 0)$ lies on line ℓ_0
 63 : $P_{4099} = (0, 63, 1, 0)$ lies on line ℓ_0
 64 : $P_{4226} = (0, 1, 0, 1)$ lies on line ℓ_1
 65 : $P_{5401} = (23, 19, 0, 1)$ lies on line ℓ_{10}
 66 : $P_{6175} = (29, 31, 0, 1)$ lies on line ℓ_{15}
 67 : $P_{6388} = (50, 34, 0, 1)$ lies on line ℓ_6
 68 : $P_{6837} = (51, 41, 0, 1)$ lies on line ℓ_{12}
 69 : $P_{7803} = (57, 56, 0, 1)$ lies on line ℓ_2
 70 : $P_{7866} = (56, 57, 0, 1)$ lies on line ℓ_3
 71 : $P_{7966} = (28, 59, 0, 1)$ lies on line ℓ_4
 72 : $P_{8024} = (22, 60, 0, 1)$ lies on line ℓ_9
 73 : $P_{8322} = (0, 1, 1, 1)$ lies on line ℓ_1
 74 : $P_{8751} = (46, 7, 1, 1)$ lies on line ℓ_{11}
 75 : $P_{9071} = (46, 12, 1, 1)$ lies on line ℓ_8
 76 : $P_{9526} = (53, 19, 1, 1)$ lies on line ℓ_{12}
 77 : $P_{9611} = (10, 21, 1, 1)$ lies on line ℓ_7
 78 : $P_{9894} = (37, 25, 1, 1)$ lies on line ℓ_{14}
 79 : $P_{10255} = (14, 31, 1, 1)$ lies on line ℓ_9
 80 : $P_{10442} = (9, 34, 1, 1)$ lies on line ℓ_{15}
 81 : $P_{10925} = (44, 41, 1, 1)$ lies on line ℓ_4
 82 : $P_{11403} = (10, 49, 1, 1)$ lies on line ℓ_{13}
 83 : $P_{11750} = (37, 54, 1, 1)$ lies on line ℓ_5
 84 : $P_{11898} = (57, 56, 1, 1)$ lies on line ℓ_3
 85 : $P_{11961} = (56, 57, 1, 1)$ lies on line ℓ_2
 86 : $P_{12065} = (32, 59, 1, 1)$ lies on line ℓ_{10}
 87 : $P_{12160} = (63, 60, 1, 1)$ lies on line ℓ_6
 88 : $P_{12417} = (0, 1, 2, 1)$ lies on line ℓ_1
 89 : $P_{12582} = (37, 3, 2, 1)$ lies on line ℓ_5
 90 : $P_{12662} = (53, 4, 2, 1)$ lies on line ℓ_{15}
 91 : $P_{13103} = (46, 11, 2, 1)$ lies on line ℓ_8
 92 : $P_{14119} = (38, 27, 2, 1)$ lies on line ℓ_9
 93 : $P_{14219} = (10, 29, 2, 1)$ lies on line ℓ_{13}
 94 : $P_{14255} = (46, 29, 2, 1)$ lies on line ℓ_{11}
 95 : $P_{14313} = (40, 30, 2, 1)$ lies on line ℓ_6
 96 : $P_{14366} = (29, 31, 2, 1)$ lies on line ℓ_4
 97 : $P_{14553} = (24, 34, 2, 1)$ lies on line ℓ_{10}
 98 : $P_{15691} = (10, 52, 2, 1)$ lies on line ℓ_7
 99 : $P_{16124} = (59, 58, 2, 1)$ lies on line ℓ_2
 100 : $P_{16187} = (58, 59, 2, 1)$ lies on line ℓ_3
 101 : $P_{16230} = (37, 60, 2, 1)$ lies on line ℓ_{14}
 102 : $P_{16256} = (63, 60, 2, 1)$ lies on line ℓ_{12}
 103 : $P_{16513} = (0, 1, 3, 1)$ lies on line ℓ_1
 104 : $P_{16890} = (57, 6, 3, 1)$ lies on line ℓ_{12}
 105 : $P_{17136} = (47, 10, 3, 1)$ lies on line ℓ_{10}
 106 : $P_{17326} = (45, 13, 3, 1)$ lies on line ℓ_4
 107 : $P_{17510} = (37, 16, 3, 1)$ lies on line ℓ_5

108 : $P_{18891} = (10, 38, 3, 1)$ lies on line ℓ_{13}
 109 : $P_{19119} = (46, 41, 3, 1)$ lies on line ℓ_8
 110 : $P_{19211} = (10, 43, 3, 1)$ lies on line ℓ_7
 111 : $P_{19823} = (46, 52, 3, 1)$ lies on line ℓ_{11}
 112 : $P_{20095} = (62, 56, 3, 1)$ lies on line ℓ_9
 113 : $P_{20130} = (33, 57, 3, 1)$ lies on line ℓ_{15}
 114 : $P_{20220} = (59, 58, 3, 1)$ lies on line ℓ_3
 115 : $P_{20283} = (58, 59, 3, 1)$ lies on line ℓ_2
 116 : $P_{20609} = (0, 1, 4, 1)$ lies on line ℓ_1
 117 : $P_{20780} = (43, 3, 4, 1)$ lies on line ℓ_{12}
 118 : $P_{20911} = (46, 5, 4, 1)$ lies on line ℓ_8
 119 : $P_{21094} = (37, 8, 4, 1)$ lies on line ℓ_5
 120 : $P_{21578} = (9, 16, 4, 1)$ lies on line ℓ_{10}
 121 : $P_{21727} = (30, 18, 4, 1)$ lies on line ℓ_4
 122 : $P_{21784} = (23, 19, 4, 1)$ lies on line ℓ_9
 123 : $P_{22027} = (10, 23, 4, 1)$ lies on line ℓ_7
 124 : $P_{22054} = (37, 23, 4, 1)$ lies on line ℓ_{14}
 125 : $P_{22859} = (10, 36, 4, 1)$ lies on line ℓ_{13}
 126 : $P_{23213} = (44, 41, 4, 1)$ lies on line ℓ_{15}
 127 : $P_{23215} = (46, 41, 4, 1)$ lies on line ℓ_{11}
 128 : $P_{24327} = (6, 59, 4, 1)$ lies on line ℓ_6
 129 : $P_{24446} = (61, 60, 4, 1)$ lies on line ℓ_2
 130 : $P_{24509} = (60, 61, 4, 1)$ lies on line ℓ_3
 131 : $P_{24705} = (0, 1, 5, 1)$ lies on line ℓ_1
 132 : $P_{25163} = (10, 8, 5, 1)$ lies on line ℓ_7
 133 : $P_{25977} = (56, 20, 5, 1)$ lies on line ℓ_{15}
 134 : $P_{26406} = (37, 27, 5, 1)$ lies on line ℓ_5
 135 : $P_{26635} = (10, 31, 5, 1)$ lies on line ℓ_{13}
 136 : $P_{27020} = (11, 37, 5, 1)$ lies on line ℓ_6
 137 : $P_{27183} = (46, 39, 5, 1)$ lies on line ℓ_8
 138 : $P_{27430} = (37, 43, 5, 1)$ lies on line ℓ_{14}
 139 : $P_{27728} = (15, 48, 5, 1)$ lies on line ℓ_9
 140 : $P_{28287} = (62, 56, 5, 1)$ lies on line ℓ_{10}
 141 : $P_{28334} = (45, 57, 5, 1)$ lies on line ℓ_{12}
 142 : $P_{28542} = (61, 60, 5, 1)$ lies on line ℓ_3
 143 : $P_{28605} = (60, 61, 5, 1)$ lies on line ℓ_2
 144 : $P_{28801} = (0, 1, 6, 1)$ lies on line ℓ_1
 145 : $P_{29213} = (28, 7, 6, 1)$ lies on line ℓ_6
 146 : $P_{29670} = (37, 14, 6, 1)$ lies on line ℓ_{14}
 147 : $P_{30184} = (39, 22, 6, 1)$ lies on line ℓ_{12}
 148 : $P_{30447} = (46, 26, 6, 1)$ lies on line ℓ_{11}
 149 : $P_{30831} = (46, 32, 6, 1)$ lies on line ℓ_8
 150 : $P_{30855} = (6, 33, 6, 1)$ lies on line ℓ_{10}
 151 : $P_{31371} = (10, 41, 6, 1)$ lies on line ℓ_7
 152 : $P_{31718} = (37, 46, 6, 1)$ lies on line ℓ_5
 153 : $P_{31941} = (4, 50, 6, 1)$ lies on line ℓ_{15}
 154 : $P_{32011} = (10, 51, 6, 1)$ lies on line ℓ_{13}
 155 : $P_{32104} = (39, 52, 6, 1)$ lies on line ℓ_9
 156 : $P_{32224} = (31, 54, 6, 1)$ lies on line ℓ_4
 157 : $P_{32768} = (63, 62, 6, 1)$ lies on line ℓ_2
 158 : $P_{32831} = (62, 63, 6, 1)$ lies on line ℓ_3
 159 : $P_{32897} = (0, 1, 7, 1)$ lies on line ℓ_1
 160 : $P_{33007} = (46, 2, 7, 1)$ lies on line ℓ_8
 161 : $P_{33355} = (10, 8, 7, 1)$ lies on line ℓ_{13}

162 : $P_{33458} = (49, 9, 7, 1)$ lies on line ℓ_{10}
 163 : $P_{33809} = (16, 15, 7, 1)$ lies on line ℓ_{15}
 164 : $P_{34368} = (63, 23, 7, 1)$ lies on line ℓ_9
 165 : $P_{34450} = (17, 25, 7, 1)$ lies on line ℓ_6
 166 : $P_{35184} = (47, 36, 7, 1)$ lies on line ℓ_4
 167 : $P_{35682} = (33, 44, 7, 1)$ lies on line ℓ_{12}
 168 : $P_{36070} = (37, 50, 7, 1)$ lies on line ℓ_{14}
 169 : $P_{36143} = (46, 51, 7, 1)$ lies on line ℓ_{11}
 170 : $P_{36299} = (10, 54, 7, 1)$ lies on line ℓ_7
 171 : $P_{36774} = (37, 61, 7, 1)$ lies on line ℓ_5
 172 : $P_{36864} = (63, 62, 7, 1)$ lies on line ℓ_3
 173 : $P_{36927} = (62, 63, 7, 1)$ lies on line ℓ_2
 174 : $P_{36993} = (0, 1, 8, 1)$ lies on line ℓ_1
 175 : $P_{37141} = (20, 3, 8, 1)$ lies on line ℓ_9
 176 : $P_{37465} = (24, 8, 8, 1)$ lies on line ℓ_4
 177 : $P_{38012} = (59, 16, 8, 1)$ lies on line ℓ_6
 178 : $P_{38111} = (30, 18, 8, 1)$ lies on line ℓ_{15}
 179 : $P_{38316} = (43, 21, 8, 1)$ lies on line ℓ_{10}
 180 : $P_{38575} = (46, 25, 8, 1)$ lies on line ℓ_8
 181 : $P_{38724} = (3, 28, 8, 1)$ lies on line ℓ_{12}
 182 : $P_{38886} = (37, 30, 8, 1)$ lies on line ℓ_5
 183 : $P_{39014} = (37, 32, 8, 1)$ lies on line ℓ_{14}
 184 : $P_{39023} = (46, 32, 8, 1)$ lies on line ℓ_{11}
 185 : $P_{40011} = (10, 48, 8, 1)$ lies on line ℓ_7
 186 : $P_{40050} = (49, 48, 8, 1)$ lies on line ℓ_2
 187 : $P_{40113} = (48, 49, 8, 1)$ lies on line ℓ_3
 188 : $P_{40459} = (10, 55, 8, 1)$ lies on line ℓ_{13}
 189 : $P_{41089} = (0, 1, 9, 1)$ lies on line ℓ_1
 190 : $P_{41647} = (46, 9, 9, 1)$ lies on line ℓ_{11}
 191 : $P_{41803} = (10, 12, 9, 1)$ lies on line ℓ_{13}
 192 : $P_{41894} = (37, 13, 9, 1)$ lies on line ℓ_5
 193 : $P_{41975} = (54, 14, 9, 1)$ lies on line ℓ_6
 194 : $P_{42729} = (40, 26, 9, 1)$ lies on line ℓ_4
 195 : $P_{42854} = (37, 28, 9, 1)$ lies on line ℓ_{14}
 196 : $P_{43085} = (12, 32, 9, 1)$ lies on line ℓ_9
 197 : $P_{43462} = (5, 38, 9, 1)$ lies on line ℓ_{12}
 198 : $P_{44146} = (49, 48, 9, 1)$ lies on line ℓ_3
 199 : $P_{44209} = (48, 49, 9, 1)$ lies on line ℓ_2
 200 : $P_{44847} = (46, 59, 9, 1)$ lies on line ℓ_8
 201 : $P_{44957} = (28, 61, 9, 1)$ lies on line ℓ_{10}
 202 : $P_{45185} = (0, 1, 10, 1)$ lies on line ℓ_1
 203 : $P_{45712} = (15, 9, 10, 1)$ lies on line ℓ_{12}
 204 : $P_{45751} = (54, 9, 10, 1)$ lies on line ℓ_{15}
 205 : $P_{46027} = (10, 14, 10, 1)$ lies on line ℓ_7
 206 : $P_{46383} = (46, 19, 10, 1)$ lies on line ℓ_{11}
 207 : $P_{47179} = (10, 32, 10, 1)$ lies on line ℓ_{13}
 208 : $P_{47962} = (25, 44, 10, 1)$ lies on line ℓ_4
 209 : $P_{47970} = (33, 44, 10, 1)$ lies on line ℓ_6
 210 : $P_{48372} = (51, 50, 10, 1)$ lies on line ℓ_2
 211 : $P_{48435} = (50, 51, 10, 1)$ lies on line ℓ_3
 212 : $P_{48742} = (37, 56, 10, 1)$ lies on line ℓ_5
 213 : $P_{48806} = (37, 57, 10, 1)$ lies on line ℓ_{14}
 214 : $P_{49007} = (46, 60, 10, 1)$ lies on line ℓ_8
 215 : $P_{49281} = (0, 1, 11, 1)$ lies on line ℓ_1

216 : $P_{49574} = (37, 5, 11, 1)$ lies on line ℓ_{14}
 217 : $P_{49725} = (60, 7, 11, 1)$ lies on line ℓ_9
 218 : $P_{50004} = (19, 12, 11, 1)$ lies on line ℓ_{10}
 219 : $P_{50315} = (10, 17, 11, 1)$ lies on line ℓ_7
 220 : $P_{50955} = (10, 27, 11, 1)$ lies on line ℓ_{13}
 221 : $P_{51183} = (46, 30, 11, 1)$ lies on line ℓ_8
 222 : $P_{52006} = (37, 43, 11, 1)$ lies on line ℓ_5
 223 : $P_{52461} = (44, 50, 11, 1)$ lies on line ℓ_6
 224 : $P_{52468} = (51, 50, 11, 1)$ lies on line ℓ_3
 225 : $P_{52490} = (9, 51, 11, 1)$ lies on line ℓ_{12}
 226 : $P_{52531} = (50, 51, 11, 1)$ lies on line ℓ_2
 227 : $P_{52579} = (34, 52, 11, 1)$ lies on line ℓ_{15}
 228 : $P_{52975} = (46, 58, 11, 1)$ lies on line ℓ_{11}
 229 : $P_{53226} = (41, 62, 11, 1)$ lies on line ℓ_4
 230 : $P_{53377} = (0, 1, 12, 1)$ lies on line ℓ_1
 231 : $P_{53904} = (15, 9, 12, 1)$ lies on line ℓ_6
 232 : $P_{54502} = (37, 18, 12, 1)$ lies on line ℓ_{14}
 233 : $P_{54774} = (53, 22, 12, 1)$ lies on line ℓ_{10}
 234 : $P_{54923} = (10, 25, 12, 1)$ lies on line ℓ_{13}
 235 : $P_{55451} = (26, 33, 12, 1)$ lies on line ℓ_4
 236 : $P_{55664} = (47, 36, 12, 1)$ lies on line ℓ_{15}
 237 : $P_{55855} = (46, 39, 12, 1)$ lies on line ℓ_{11}
 238 : $P_{56150} = (21, 44, 12, 1)$ lies on line ℓ_9
 239 : $P_{56203} = (10, 45, 12, 1)$ lies on line ℓ_7
 240 : $P_{56559} = (46, 50, 12, 1)$ lies on line ℓ_8
 241 : $P_{56614} = (37, 51, 12, 1)$ lies on line ℓ_5
 242 : $P_{56694} = (53, 52, 12, 1)$ lies on line ℓ_2
 243 : $P_{56757} = (52, 53, 12, 1)$ lies on line ℓ_3
 244 : $P_{56796} = (27, 54, 12, 1)$ lies on line ℓ_{12}
 245 : $P_{57473} = (0, 1, 13, 1)$ lies on line ℓ_1
 246 : $P_{58206} = (29, 12, 13, 1)$ lies on line ℓ_{12}
 247 : $P_{58351} = (46, 14, 13, 1)$ lies on line ℓ_{11}
 248 : $P_{58382} = (13, 15, 13, 1)$ lies on line ℓ_9
 249 : $P_{58479} = (46, 16, 13, 1)$ lies on line ℓ_8
 250 : $P_{58883} = (2, 23, 13, 1)$ lies on line ℓ_6
 251 : $P_{59068} = (59, 25, 13, 1)$ lies on line ℓ_{15}
 252 : $P_{59494} = (37, 32, 13, 1)$ lies on line ℓ_5
 253 : $P_{59595} = (10, 34, 13, 1)$ lies on line ℓ_{13}
 254 : $P_{60390} = (37, 46, 13, 1)$ lies on line ℓ_{14}
 255 : $P_{60619} = (10, 50, 13, 1)$ lies on line ℓ_7
 256 : $P_{60715} = (42, 51, 13, 1)$ lies on line ℓ_4
 257 : $P_{60790} = (53, 52, 13, 1)$ lies on line ℓ_3
 258 : $P_{60853} = (52, 53, 13, 1)$ lies on line ℓ_2
 259 : $P_{61379} = (2, 62, 13, 1)$ lies on line ℓ_{10}
 260 : $P_{61569} = (0, 1, 14, 1)$ lies on line ℓ_1
 261 : $P_{61852} = (27, 5, 14, 1)$ lies on line ℓ_4
 262 : $P_{62411} = (10, 14, 14, 1)$ lies on line ℓ_{13}
 263 : $P_{62731} = (10, 19, 14, 1)$ lies on line ℓ_7
 264 : $P_{62831} = (46, 20, 14, 1)$ lies on line ℓ_{11}
 265 : $P_{62886} = (37, 21, 14, 1)$ lies on line ℓ_5
 266 : $P_{63023} = (46, 23, 14, 1)$ lies on line ℓ_8
 267 : $P_{63768} = (23, 35, 14, 1)$ lies on line ℓ_{12}
 268 : $P_{64059} = (58, 39, 14, 1)$ lies on line ℓ_{10}
 269 : $P_{64918} = (21, 53, 14, 1)$ lies on line ℓ_6

270 : $P_{65016} = (55, 54, 14, 1)$ lies on line ℓ_2
 271 : $P_{65079} = (54, 55, 14, 1)$ lies on line ℓ_3
 272 : $P_{65544} = (7, 63, 14, 1)$ lies on line ℓ_{15}
 273 : $P_{65665} = (0, 1, 15, 1)$ lies on line ℓ_1
 274 : $P_{65748} = (19, 2, 15, 1)$ lies on line ℓ_{15}
 275 : $P_{66022} = (37, 6, 15, 1)$ lies on line ℓ_5
 276 : $P_{66379} = (10, 12, 15, 1)$ lies on line ℓ_7
 277 : $P_{66574} = (13, 15, 15, 1)$ lies on line ℓ_{10}
 278 : $P_{67116} = (43, 23, 15, 1)$ lies on line ℓ_4
 279 : $P_{67218} = (17, 25, 15, 1)$ lies on line ℓ_{12}
 280 : $P_{68222} = (61, 40, 15, 1)$ lies on line ℓ_9
 281 : $P_{68377} = (24, 43, 15, 1)$ lies on line ℓ_6
 282 : $P_{69003} = (10, 53, 15, 1)$ lies on line ℓ_{13}
 283 : $P_{69039} = (46, 53, 15, 1)$ lies on line ℓ_8
 284 : $P_{69112} = (55, 54, 15, 1)$ lies on line ℓ_3
 285 : $P_{69158} = (37, 55, 15, 1)$ lies on line ℓ_{14}
 286 : $P_{69175} = (54, 55, 15, 1)$ lies on line ℓ_2
 287 : $P_{69551} = (46, 61, 15, 1)$ lies on line ℓ_{11}
 288 : $P_{69761} = (0, 1, 16, 1)$ lies on line ℓ_1
 289 : $P_{70044} = (27, 5, 16, 1)$ lies on line ℓ_{15}
 290 : $P_{70795} = (10, 17, 16, 1)$ lies on line ℓ_{13}
 291 : $P_{71691} = (10, 31, 16, 1)$ lies on line ℓ_7
 292 : $P_{71695} = (14, 31, 16, 1)$ lies on line ℓ_{10}
 293 : $P_{71855} = (46, 33, 16, 1)$ lies on line ℓ_8
 294 : $P_{71923} = (50, 34, 16, 1)$ lies on line ℓ_{12}
 295 : $P_{71955} = (18, 35, 16, 1)$ lies on line ℓ_9
 296 : $P_{72225} = (32, 39, 16, 1)$ lies on line ℓ_6
 297 : $P_{72298} = (41, 40, 16, 1)$ lies on line ℓ_2
 298 : $P_{72361} = (40, 41, 16, 1)$ lies on line ℓ_3
 299 : $P_{72742} = (37, 47, 16, 1)$ lies on line ℓ_{14}
 300 : $P_{72934} = (37, 50, 16, 1)$ lies on line ℓ_5
 301 : $P_{72943} = (46, 50, 16, 1)$ lies on line ℓ_{11}
 302 : $P_{73557} = (20, 60, 16, 1)$ lies on line ℓ_4
 303 : $P_{73857} = (0, 1, 17, 1)$ lies on line ℓ_1
 304 : $P_{74031} = (46, 3, 17, 1)$ lies on line ℓ_8
 305 : $P_{75046} = (37, 19, 17, 1)$ lies on line ℓ_{14}
 306 : $P_{75381} = (52, 24, 17, 1)$ lies on line ℓ_{12}
 307 : $P_{75567} = (46, 27, 17, 1)$ lies on line ℓ_{11}
 308 : $P_{75942} = (37, 33, 17, 1)$ lies on line ℓ_5
 309 : $P_{76394} = (41, 40, 17, 1)$ lies on line ℓ_3
 310 : $P_{76457} = (40, 41, 17, 1)$ lies on line ℓ_2
 311 : $P_{76491} = (10, 42, 17, 1)$ lies on line ℓ_{13}
 312 : $P_{76773} = (36, 46, 17, 1)$ lies on line ℓ_4
 313 : $P_{77370} = (57, 55, 17, 1)$ lies on line ℓ_{10}
 314 : $P_{77392} = (15, 56, 17, 1)$ lies on line ℓ_{15}
 315 : $P_{77486} = (45, 57, 17, 1)$ lies on line ℓ_6
 316 : $P_{77953} = (0, 1, 18, 1)$ lies on line ℓ_1
 317 : $P_{77999} = (46, 1, 18, 1)$ lies on line ℓ_{11}
 318 : $P_{78179} = (34, 4, 18, 1)$ lies on line ℓ_9
 319 : $P_{78191} = (46, 4, 18, 1)$ lies on line ℓ_8
 320 : $P_{78283} = (10, 6, 18, 1)$ lies on line ℓ_{13}
 321 : $P_{79206} = (37, 20, 18, 1)$ lies on line ℓ_5
 322 : $P_{79446} = (21, 24, 18, 1)$ lies on line ℓ_4
 323 : $P_{79675} = (58, 27, 18, 1)$ lies on line ℓ_6
 324 : $P_{79860} = (51, 30, 18, 1)$ lies on line ℓ_{15}
 325 : $P_{80011} = (10, 33, 18, 1)$ lies on line ℓ_7
 326 : $P_{80620} = (43, 42, 18, 1)$ lies on line ℓ_2
 327 : $P_{80683} = (42, 43, 18, 1)$ lies on line ℓ_3
 328 : $P_{80834} = (1, 46, 18, 1)$ lies on line ℓ_{10}
 329 : $P_{81382} = (37, 54, 18, 1)$ lies on line ℓ_{14}
 330 : $P_{81471} = (62, 55, 18, 1)$ lies on line ℓ_{12}
 331 : $P_{82049} = (0, 1, 19, 1)$ lies on line ℓ_1
 332 : $P_{82360} = (55, 5, 19, 1)$ lies on line ℓ_6
 333 : $P_{82423} = (54, 6, 19, 1)$ lies on line ℓ_{10}
 334 : $P_{82470} = (37, 7, 19, 1)$ lies on line ℓ_5
 335 : $P_{82873} = (56, 13, 19, 1)$ lies on line ℓ_{12}
 336 : $P_{84264} = (39, 35, 19, 1)$ lies on line ℓ_{15}
 337 : $P_{84463} = (46, 38, 19, 1)$ lies on line ℓ_8
 338 : $P_{84539} = (58, 39, 19, 1)$ lies on line ℓ_9
 339 : $P_{84591} = (46, 40, 19, 1)$ lies on line ℓ_{11}
 340 : $P_{84716} = (43, 42, 19, 1)$ lies on line ℓ_3
 341 : $P_{84779} = (42, 43, 19, 1)$ lies on line ℓ_2
 342 : $P_{85899} = (10, 61, 19, 1)$ lies on line ℓ_{13}
 343 : $P_{85963} = (10, 62, 19, 1)$ lies on line ℓ_7
 344 : $P_{86145} = (0, 1, 20, 1)$ lies on line ℓ_1
 345 : $P_{86219} = (10, 2, 20, 1)$ lies on line ℓ_7
 346 : $P_{86635} = (42, 8, 20, 1)$ lies on line ℓ_{12}
 347 : $P_{86767} = (46, 10, 20, 1)$ lies on line ℓ_8
 348 : $P_{86868} = (19, 12, 20, 1)$ lies on line ℓ_9
 349 : $P_{87447} = (22, 21, 20, 1)$ lies on line ℓ_4
 350 : $P_{87889} = (16, 28, 20, 1)$ lies on line ℓ_{10}
 351 : $P_{87974} = (37, 29, 20, 1)$ lies on line ℓ_{14}
 352 : $P_{88102} = (37, 31, 20, 1)$ lies on line ℓ_5
 353 : $P_{88942} = (45, 44, 20, 1)$ lies on line ℓ_2
 354 : $P_{89005} = (44, 45, 20, 1)$ lies on line ℓ_3
 355 : $P_{89387} = (42, 51, 20, 1)$ lies on line ℓ_{15}
 356 : $P_{89519} = (46, 53, 20, 1)$ lies on line ℓ_{11}
 357 : $P_{90069} = (20, 62, 20, 1)$ lies on line ℓ_6
 358 : $P_{90123} = (10, 63, 20, 1)$ lies on line ℓ_{13}
 359 : $P_{90241} = (0, 1, 21, 1)$ lies on line ℓ_1
 360 : $P_{90443} = (10, 4, 21, 1)$ lies on line ℓ_{13}
 361 : $P_{90663} = (38, 7, 21, 1)$ lies on line ℓ_4
 362 : $P_{90982} = (37, 12, 21, 1)$ lies on line ℓ_5
 363 : $P_{91135} = (62, 14, 21, 1)$ lies on line ℓ_{15}
 364 : $P_{92015} = (46, 28, 21, 1)$ lies on line ℓ_{11}
 365 : $P_{92043} = (10, 29, 21, 1)$ lies on line ℓ_7
 366 : $P_{92250} = (25, 32, 21, 1)$ lies on line ℓ_6
 367 : $P_{92326} = (37, 33, 21, 1)$ lies on line ℓ_{14}
 368 : $P_{92783} = (46, 40, 21, 1)$ lies on line ℓ_8
 369 : $P_{93038} = (45, 44, 21, 1)$ lies on line ℓ_3
 370 : $P_{93101} = (44, 45, 21, 1)$ lies on line ℓ_2
 371 : $P_{93196} = (11, 47, 21, 1)$ lies on line ℓ_9
 372 : $P_{93421} = (44, 50, 21, 1)$ lies on line ℓ_{12}
 373 : $P_{93544} = (39, 52, 21, 1)$ lies on line ℓ_{10}
 374 : $P_{94337} = (0, 1, 22, 1)$ lies on line ℓ_1
 375 : $P_{94415} = (14, 2, 22, 1)$ lies on line ℓ_6
 376 : $P_{94566} = (37, 4, 22, 1)$ lies on line ℓ_{14}
 377 : $P_{94703} = (46, 6, 22, 1)$ lies on line ℓ_{11}

378 : $P_{96167} = (38, 29, 22, 1)$ lies on line ℓ_{12}
 379 : $P_{96835} = (2, 40, 22, 1)$ lies on line ℓ_{15}
 380 : $P_{96843} = (10, 40, 22, 1)$ lies on line ℓ_{13}
 381 : $P_{97060} = (35, 43, 22, 1)$ lies on line ℓ_9
 382 : $P_{97184} = (31, 45, 22, 1)$ lies on line ℓ_{10}
 383 : $P_{97264} = (47, 46, 22, 1)$ lies on line ℓ_2
 384 : $P_{97432} = (23, 49, 22, 1)$ lies on line ℓ_4
 385 : $P_{97958} = (37, 57, 22, 1)$ lies on line ℓ_5
 386 : $P_{98123} = (10, 60, 22, 1)$ lies on line ℓ_7
 387 : $P_{98433} = (0, 1, 23, 1)$ lies on line ℓ_1
 388 : $P_{98729} = (40, 5, 23, 1)$ lies on line ℓ_{10}
 389 : $P_{98940} = (59, 8, 23, 1)$ lies on line ℓ_9
 390 : $P_{99247} = (46, 13, 23, 1)$ lies on line ℓ_8
 391 : $P_{99595} = (10, 19, 23, 1)$ lies on line ℓ_{13}
 392 : $P_{99735} = (22, 21, 23, 1)$ lies on line ℓ_{15}
 393 : $P_{100164} = (3, 28, 23, 1)$ lies on line ℓ_6
 394 : $P_{100619} = (10, 35, 23, 1)$ lies on line ℓ_7
 395 : $P_{100648} = (39, 35, 23, 1)$ lies on line ℓ_4
 396 : $P_{100897} = (32, 39, 23, 1)$ lies on line ℓ_{12}
 397 : $P_{101094} = (37, 42, 23, 1)$ lies on line ℓ_5
 398 : $P_{101360} = (47, 46, 23, 1)$ lies on line ℓ_3
 399 : $P_{101990} = (37, 56, 23, 1)$ lies on line ℓ_{14}
 400 : $P_{102529} = (0, 1, 24, 1)$ lies on line ℓ_1
 401 : $P_{103001} = (24, 8, 24, 1)$ lies on line ℓ_{15}
 402 : $P_{103078} = (37, 9, 24, 1)$ lies on line ℓ_5
 403 : $P_{103441} = (16, 15, 24, 1)$ lies on line ℓ_4
 404 : $P_{103850} = (41, 21, 24, 1)$ lies on line ℓ_6
 405 : $P_{103919} = (46, 22, 24, 1)$ lies on line ℓ_8
 406 : $P_{103939} = (2, 23, 24, 1)$ lies on line ℓ_{12}
 407 : $P_{104115} = (50, 25, 24, 1)$ lies on line ℓ_{10}
 408 : $P_{104273} = (16, 28, 24, 1)$ lies on line ℓ_9
 409 : $P_{104546} = (33, 32, 24, 1)$ lies on line ℓ_2
 410 : $P_{104609} = (32, 33, 24, 1)$ lies on line ℓ_3
 411 : $P_{104843} = (10, 37, 24, 1)$ lies on line ℓ_7
 412 : $P_{105190} = (37, 42, 24, 1)$ lies on line ℓ_{14}
 413 : $P_{105291} = (10, 44, 24, 1)$ lies on line ℓ_{13}
 414 : $P_{106351} = (46, 60, 24, 1)$ lies on line ℓ_{11}
 415 : $P_{106625} = (0, 1, 25, 1)$ lies on line ℓ_1
 416 : $P_{107301} = (36, 11, 25, 1)$ lies on line ℓ_6
 417 : $P_{107951} = (46, 21, 25, 1)$ lies on line ℓ_{11}
 418 : $P_{108006} = (37, 22, 25, 1)$ lies on line ℓ_{14}
 419 : $P_{108043} = (10, 23, 25, 1)$ lies on line ℓ_{13}
 420 : $P_{108262} = (37, 26, 25, 1)$ lies on line ℓ_5
 421 : $P_{108449} = (32, 29, 25, 1)$ lies on line ℓ_4
 422 : $P_{108642} = (33, 32, 25, 1)$ lies on line ℓ_3
 423 : $P_{108705} = (32, 33, 25, 1)$ lies on line ℓ_2
 424 : $P_{109445} = (4, 45, 25, 1)$ lies on line ℓ_{12}
 425 : $P_{109702} = (5, 49, 25, 1)$ lies on line ℓ_{10}
 426 : $P_{109935} = (46, 52, 25, 1)$ lies on line ℓ_8
 427 : $P_{109965} = (12, 53, 25, 1)$ lies on line ℓ_{15}
 428 : $P_{110283} = (10, 58, 25, 1)$ lies on line ℓ_7
 429 : $P_{110601} = (8, 63, 25, 1)$ lies on line ℓ_9
 430 : $P_{110721} = (0, 1, 26, 1)$ lies on line ℓ_1
 431 : $P_{110799} = (14, 2, 26, 1)$ lies on line ℓ_{12}

432 : $P_{111663} = (46, 15, 26, 1)$ lies on line ℓ_{11}
 433 : $P_{111921} = (48, 19, 26, 1)$ lies on line ℓ_{15}
 434 : $P_{112395} = (10, 27, 26, 1)$ lies on line ℓ_7
 435 : $P_{112868} = (35, 34, 26, 1)$ lies on line ℓ_2
 436 : $P_{112931} = (34, 35, 26, 1)$ lies on line ℓ_3
 437 : $P_{113278} = (61, 40, 26, 1)$ lies on line ℓ_{10}
 438 : $P_{113332} = (51, 41, 26, 1)$ lies on line ℓ_6
 439 : $P_{113426} = (17, 43, 26, 1)$ lies on line ℓ_4
 440 : $P_{113702} = (37, 47, 26, 1)$ lies on line ℓ_5
 441 : $P_{113958} = (37, 51, 26, 1)$ lies on line ℓ_{14}
 442 : $P_{113967} = (46, 51, 26, 1)$ lies on line ℓ_8
 443 : $P_{114443} = (10, 59, 26, 1)$ lies on line ℓ_{13}
 444 : $P_{114465} = (32, 59, 26, 1)$ lies on line ℓ_9
 445 : $P_{114817} = (0, 1, 27, 1)$ lies on line ℓ_1
 446 : $P_{115019} = (10, 4, 27, 1)$ lies on line ℓ_7
 447 : $P_{115750} = (37, 15, 27, 1)$ lies on line ℓ_{14}
 448 : $P_{115887} = (46, 17, 27, 1)$ lies on line ℓ_8
 449 : $P_{116345} = (56, 24, 27, 1)$ lies on line ℓ_9
 450 : $P_{116964} = (35, 34, 27, 1)$ lies on line ℓ_3
 451 : $P_{117027} = (34, 35, 27, 1)$ lies on line ℓ_2
 452 : $P_{117231} = (46, 38, 27, 1)$ lies on line ℓ_{11}
 453 : $P_{117733} = (36, 46, 27, 1)$ lies on line ℓ_{15}
 454 : $P_{118335} = (62, 55, 27, 1)$ lies on line ℓ_6
 455 : $P_{118345} = (8, 56, 27, 1)$ lies on line ℓ_{12}
 456 : $P_{118434} = (33, 57, 27, 1)$ lies on line ℓ_4
 457 : $P_{118630} = (37, 60, 27, 1)$ lies on line ℓ_5
 458 : $P_{118913} = (0, 1, 28, 1)$ lies on line ℓ_1
 459 : $P_{118987} = (10, 2, 28, 1)$ lies on line ℓ_{13}
 460 : $P_{119646} = (29, 12, 28, 1)$ lies on line ℓ_6
 461 : $P_{120422} = (37, 24, 28, 1)$ lies on line ℓ_{14}
 462 : $P_{120557} = (44, 26, 28, 1)$ lies on line ℓ_{10}
 463 : $P_{121253} = (36, 37, 28, 1)$ lies on line ℓ_3
 464 : $P_{121299} = (18, 38, 28, 1)$ lies on line ℓ_4
 465 : $P_{122130} = (17, 51, 28, 1)$ lies on line ℓ_9
 466 : $P_{122443} = (10, 56, 28, 1)$ lies on line ℓ_7
 467 : $P_{122671} = (46, 59, 28, 1)$ lies on line ℓ_{11}
 468 : $P_{122779} = (26, 61, 28, 1)$ lies on line ℓ_{12}
 469 : $P_{122799} = (46, 61, 28, 1)$ lies on line ℓ_8
 470 : $P_{122858} = (41, 62, 28, 1)$ lies on line ℓ_{15}
 471 : $P_{123009} = (0, 1, 29, 1)$ lies on line ℓ_1
 472 : $P_{123198} = (61, 3, 29, 1)$ lies on line ℓ_{15}
 473 : $P_{123421} = (28, 7, 29, 1)$ lies on line ℓ_{12}
 474 : $P_{123978} = (9, 16, 29, 1)$ lies on line ℓ_9
 475 : $P_{124113} = (16, 18, 29, 1)$ lies on line ℓ_6
 476 : $P_{124143} = (46, 18, 29, 1)$ lies on line ℓ_{11}
 477 : $P_{124975} = (46, 31, 29, 1)$ lies on line ℓ_8
 478 : $P_{125349} = (36, 37, 29, 1)$ lies on line ℓ_2
 479 : $P_{125451} = (10, 39, 29, 1)$ lies on line ℓ_7
 480 : $P_{126172} = (27, 50, 29, 1)$ lies on line ℓ_{10}
 481 : $P_{126307} = (34, 52, 29, 1)$ lies on line ℓ_4
 482 : $P_{126502} = (37, 55, 29, 1)$ lies on line ℓ_5
 483 : $P_{126603} = (10, 57, 29, 1)$ lies on line ℓ_{13}
 484 : $P_{127105} = (0, 1, 30, 1)$ lies on line ℓ_1
 485 : $P_{127142} = (37, 1, 30, 1)$ lies on line ℓ_{14}

486 : $P_{127188} = (19, 2, 30, 1)$ lies on line ℓ_4
 487 : $P_{127206} = (37, 2, 30, 1)$ lies on line ℓ_5
 488 : $P_{127435} = (10, 6, 30, 1)$ lies on line ℓ_7
 489 : $P_{127599} = (46, 8, 30, 1)$ lies on line ℓ_{11}
 490 : $P_{128354} = (33, 20, 30, 1)$ lies on line ℓ_9
 491 : $P_{128395} = (10, 21, 30, 1)$ lies on line ℓ_{13}
 492 : $P_{128623} = (46, 24, 30, 1)$ lies on line ℓ_8
 493 : $P_{129410} = (1, 37, 30, 1)$ lies on line ℓ_{15}
 494 : $P_{129512} = (39, 38, 30, 1)$ lies on line ℓ_2
 495 : $P_{129575} = (38, 39, 30, 1)$ lies on line ℓ_3
 496 : $P_{129623} = (22, 40, 30, 1)$ lies on line ℓ_{12}
 497 : $P_{129828} = (35, 43, 30, 1)$ lies on line ℓ_{10}
 498 : $P_{130120} = (7, 48, 30, 1)$ lies on line ℓ_6
 499 : $P_{131201} = (0, 1, 31, 1)$ lies on line ℓ_1
 500 : $P_{131349} = (20, 3, 31, 1)$ lies on line ℓ_{10}
 501 : $P_{132196} = (35, 16, 31, 1)$ lies on line ℓ_4
 502 : $P_{132262} = (37, 17, 31, 1)$ lies on line ℓ_5
 503 : $P_{132305} = (16, 18, 31, 1)$ lies on line ℓ_{12}
 504 : $P_{132694} = (21, 24, 31, 1)$ lies on line ℓ_{15}
 505 : $P_{132747} = (10, 25, 31, 1)$ lies on line ℓ_7
 506 : $P_{133295} = (46, 33, 31, 1)$ lies on line ℓ_{11}
 507 : $P_{133608} = (39, 38, 31, 1)$ lies on line ℓ_3
 508 : $P_{133671} = (38, 39, 31, 1)$ lies on line ℓ_2
 509 : $P_{134714} = (57, 55, 31, 1)$ lies on line ℓ_9
 510 : $P_{134895} = (46, 58, 31, 1)$ lies on line ℓ_8
 511 : $P_{135078} = (37, 61, 31, 1)$ lies on line ℓ_{14}
 512 : $P_{135297} = (0, 1, 32, 1)$ lies on line ℓ_1
 513 : $P_{135391} = (30, 2, 32, 1)$ lies on line ℓ_9
 514 : $P_{136687} = (46, 22, 32, 1)$ lies on line ℓ_{11}
 515 : $P_{136794} = (25, 24, 32, 1)$ lies on line ℓ_2
 516 : $P_{136857} = (24, 25, 32, 1)$ lies on line ℓ_3
 517 : $P_{137291} = (10, 32, 32, 1)$ lies on line ℓ_7
 518 : $P_{137815} = (22, 40, 32, 1)$ lies on line ℓ_6
 519 : $P_{138002} = (17, 43, 32, 1)$ lies on line ℓ_{15}
 520 : $P_{138351} = (46, 48, 32, 1)$ lies on line ℓ_8
 521 : $P_{138406} = (37, 49, 32, 1)$ lies on line ℓ_{14}
 522 : $P_{138637} = (12, 53, 32, 1)$ lies on line ℓ_4
 523 : $P_{139083} = (10, 60, 32, 1)$ lies on line ℓ_{13}
 524 : $P_{139314} = (49, 63, 32, 1)$ lies on line ℓ_{12}
 525 : $P_{139393} = (0, 1, 33, 1)$ lies on line ℓ_1
 526 : $P_{139704} = (55, 5, 33, 1)$ lies on line ℓ_{12}
 527 : $P_{139787} = (10, 7, 33, 1)$ lies on line ℓ_{13}
 528 : $P_{140198} = (37, 13, 33, 1)$ lies on line ℓ_{14}
 529 : $P_{140527} = (46, 18, 33, 1)$ lies on line ℓ_8
 530 : $P_{140742} = (5, 22, 33, 1)$ lies on line ℓ_{15}
 531 : $P_{140890} = (25, 24, 33, 1)$ lies on line ℓ_3
 532 : $P_{140902} = (37, 24, 33, 1)$ lies on line ℓ_5
 533 : $P_{140953} = (24, 25, 33, 1)$ lies on line ℓ_2
 534 : $P_{141447} = (6, 33, 33, 1)$ lies on line ℓ_9
 535 : $P_{141587} = (18, 35, 33, 1)$ lies on line ℓ_{10}
 536 : $P_{141885} = (60, 39, 33, 1)$ lies on line ℓ_4
 537 : $P_{142812} = (27, 54, 33, 1)$ lies on line ℓ_6
 538 : $P_{143371} = (10, 63, 33, 1)$ lies on line ℓ_7
 539 : $P_{143407} = (46, 63, 33, 1)$ lies on line ℓ_{11}

540 : $P_{143489} = (0, 1, 34, 1)$ lies on line ℓ_1
 541 : $P_{144526} = (13, 17, 34, 1)$ lies on line ℓ_4
 542 : $P_{144717} = (12, 20, 34, 1)$ lies on line ℓ_6
 543 : $P_{144815} = (46, 21, 34, 1)$ lies on line ℓ_8
 544 : $P_{145116} = (27, 26, 34, 1)$ lies on line ℓ_2
 545 : $P_{145179} = (26, 27, 34, 1)$ lies on line ℓ_3
 546 : $P_{145355} = (10, 30, 34, 1)$ lies on line ℓ_7
 547 : $P_{146022} = (37, 40, 34, 1)$ lies on line ℓ_{14}
 548 : $P_{146174} = (61, 42, 34, 1)$ lies on line ℓ_{12}
 549 : $P_{146187} = (10, 43, 34, 1)$ lies on line ℓ_{13}
 550 : $P_{146342} = (37, 45, 34, 1)$ lies on line ℓ_5
 551 : $P_{146554} = (57, 48, 34, 1)$ lies on line ℓ_{15}
 552 : $P_{147179} = (42, 58, 34, 1)$ lies on line ℓ_{10}
 553 : $P_{147585} = (0, 1, 35, 1)$ lies on line ℓ_1
 554 : $P_{147595} = (10, 1, 35, 1)$ lies on line ℓ_7
 555 : $P_{147774} = (61, 3, 35, 1)$ lies on line ℓ_4
 556 : $P_{147959} = (54, 6, 35, 1)$ lies on line ℓ_9
 557 : $P_{148162} = (1, 10, 35, 1)$ lies on line ℓ_6
 558 : $P_{148335} = (46, 12, 35, 1)$ lies on line ℓ_{11}
 559 : $P_{148398} = (45, 13, 35, 1)$ lies on line ℓ_{15}
 560 : $P_{148555} = (10, 16, 35, 1)$ lies on line ℓ_{13}
 561 : $P_{148604} = (59, 16, 35, 1)$ lies on line ℓ_{12}
 562 : $P_{148702} = (29, 18, 35, 1)$ lies on line ℓ_{10}
 563 : $P_{148838} = (37, 20, 35, 1)$ lies on line ℓ_{14}
 564 : $P_{149212} = (27, 26, 35, 1)$ lies on line ℓ_3
 565 : $P_{149275} = (26, 27, 35, 1)$ lies on line ℓ_2
 566 : $P_{151087} = (46, 55, 35, 1)$ lies on line ℓ_8
 567 : $P_{151526} = (37, 62, 35, 1)$ lies on line ℓ_5
 568 : $P_{151681} = (0, 1, 36, 1)$ lies on line ℓ_1
 569 : $P_{151846} = (37, 3, 36, 1)$ lies on line ℓ_{14}
 570 : $P_{152188} = (59, 8, 36, 1)$ lies on line ℓ_{10}
 571 : $P_{152751} = (46, 17, 36, 1)$ lies on line ℓ_{11}
 572 : $P_{152779} = (10, 18, 36, 1)$ lies on line ℓ_{13}
 573 : $P_{153002} = (41, 21, 36, 1)$ lies on line ℓ_{12}
 574 : $P_{153391} = (46, 27, 36, 1)$ lies on line ℓ_8
 575 : $P_{153423} = (14, 28, 36, 1)$ lies on line ℓ_4
 576 : $P_{153438} = (29, 28, 36, 1)$ lies on line ℓ_2
 577 : $P_{153501} = (28, 29, 36, 1)$ lies on line ℓ_3
 578 : $P_{153505} = (32, 29, 36, 1)$ lies on line ℓ_{15}
 579 : $P_{154086} = (37, 38, 36, 1)$ lies on line ℓ_5
 580 : $P_{154528} = (31, 45, 36, 1)$ lies on line ℓ_9
 581 : $P_{154787} = (34, 49, 36, 1)$ lies on line ℓ_6
 582 : $P_{155531} = (10, 61, 36, 1)$ lies on line ℓ_7
 583 : $P_{155777} = (0, 1, 37, 1)$ lies on line ℓ_1
 584 : $P_{156616} = (7, 14, 37, 1)$ lies on line ℓ_9
 585 : $P_{156671} = (62, 14, 37, 1)$ lies on line ℓ_4
 586 : $P_{157534} = (29, 28, 37, 1)$ lies on line ℓ_3
 587 : $P_{157597} = (28, 29, 37, 1)$ lies on line ℓ_2
 588 : $P_{157773} = (12, 32, 37, 1)$ lies on line ℓ_{10}
 589 : $P_{157813} = (52, 32, 37, 1)$ lies on line ℓ_{15}
 590 : $P_{157899} = (10, 34, 37, 1)$ lies on line ℓ_7
 591 : $P_{158347} = (10, 41, 37, 1)$ lies on line ℓ_{13}
 592 : $P_{159142} = (37, 53, 37, 1)$ lies on line ℓ_5
 593 : $P_{159343} = (46, 56, 37, 1)$ lies on line ℓ_{11}

594 : $P_{159407} = (46, 57, 37, 1)$ lies on line ℓ_8
 595 : $P_{159782} = (37, 63, 37, 1)$ lies on line ℓ_{14}
 596 : $P_{159873} = (0, 1, 38, 1)$ lies on line ℓ_1
 597 : $P_{160011} = (10, 3, 38, 1)$ lies on line ℓ_7
 598 : $P_{160139} = (10, 5, 38, 1)$ lies on line ℓ_{13}
 599 : $P_{160201} = (8, 6, 38, 1)$ lies on line ℓ_{15}
 600 : $P_{160496} = (47, 10, 38, 1)$ lies on line ℓ_9
 601 : $P_{160697} = (56, 13, 38, 1)$ lies on line ℓ_6
 602 : $P_{161510} = (37, 26, 38, 1)$ lies on line ℓ_{14}
 603 : $P_{161760} = (31, 30, 38, 1)$ lies on line ℓ_2
 604 : $P_{161823} = (30, 31, 38, 1)$ lies on line ℓ_3
 605 : $P_{162031} = (46, 34, 38, 1)$ lies on line ℓ_{11}
 606 : $P_{163408} = (15, 56, 38, 1)$ lies on line ℓ_4
 607 : $P_{163509} = (52, 57, 38, 1)$ lies on line ℓ_{10}
 608 : $P_{163823} = (46, 62, 38, 1)$ lies on line ℓ_8
 609 : $P_{163969} = (0, 1, 39, 1)$ lies on line ℓ_1
 610 : $P_{164655} = (46, 11, 39, 1)$ lies on line ℓ_{11}
 611 : $P_{164996} = (3, 17, 39, 1)$ lies on line ℓ_{10}
 612 : $P_{165158} = (37, 19, 39, 1)$ lies on line ℓ_5
 613 : $P_{165174} = (53, 19, 39, 1)$ lies on line ℓ_6
 614 : $P_{165707} = (10, 28, 39, 1)$ lies on line ℓ_7
 615 : $P_{165743} = (46, 28, 39, 1)$ lies on line ℓ_8
 616 : $P_{165856} = (31, 30, 39, 1)$ lies on line ℓ_3
 617 : $P_{165919} = (30, 31, 39, 1)$ lies on line ℓ_2
 618 : $P_{166374} = (37, 38, 39, 1)$ lies on line ℓ_{14}
 619 : $P_{166584} = (55, 41, 39, 1)$ lies on line ℓ_9
 620 : $P_{166656} = (63, 42, 39, 1)$ lies on line ℓ_4
 621 : $P_{167652} = (35, 58, 39, 1)$ lies on line ℓ_{12}
 622 : $P_{167709} = (28, 59, 39, 1)$ lies on line ℓ_{15}
 623 : $P_{167883} = (10, 62, 39, 1)$ lies on line ℓ_{13}
 624 : $P_{168065} = (0, 1, 40, 1)$ lies on line ℓ_1
 625 : $P_{168075} = (10, 1, 40, 1)$ lies on line ℓ_{13}
 626 : $P_{168393} = (8, 6, 40, 1)$ lies on line ℓ_4
 627 : $P_{168495} = (46, 7, 40, 1)$ lies on line ℓ_8
 628 : $P_{168642} = (1, 10, 40, 1)$ lies on line ℓ_{12}
 629 : $P_{168858} = (25, 13, 40, 1)$ lies on line ℓ_{10}
 630 : $P_{169042} = (17, 16, 40, 1)$ lies on line ℓ_2
 631 : $P_{169105} = (16, 17, 40, 1)$ lies on line ℓ_3
 632 : $P_{169583} = (46, 24, 40, 1)$ lies on line ℓ_{11}
 633 : $P_{169675} = (10, 26, 40, 1)$ lies on line ℓ_7
 634 : $P_{169696} = (31, 26, 40, 1)$ lies on line ℓ_6
 635 : $P_{170451} = (18, 38, 40, 1)$ lies on line ℓ_{15}
 636 : $P_{171110} = (37, 48, 40, 1)$ lies on line ℓ_5
 637 : $P_{171366} = (37, 52, 40, 1)$ lies on line ℓ_{14}
 638 : $P_{171933} = (28, 61, 40, 1)$ lies on line ℓ_9
 639 : $P_{172161} = (0, 1, 41, 1)$ lies on line ℓ_1
 640 : $P_{172371} = (18, 4, 41, 1)$ lies on line ℓ_6
 641 : $P_{172427} = (10, 5, 41, 1)$ lies on line ℓ_7
 642 : $P_{172646} = (37, 8, 41, 1)$ lies on line ℓ_{14}
 643 : $P_{173138} = (17, 16, 41, 1)$ lies on line ℓ_3
 644 : $P_{173201} = (16, 17, 41, 1)$ lies on line ℓ_2
 645 : $P_{173433} = (56, 20, 41, 1)$ lies on line ℓ_4
 646 : $P_{173831} = (6, 27, 41, 1)$ lies on line ℓ_{15}
 647 : $P_{174021} = (4, 30, 41, 1)$ lies on line ℓ_9

648 : $P_{174374} = (37, 35, 41, 1)$ lies on line ℓ_5
 649 : $P_{175176} = (7, 48, 41, 1)$ lies on line ℓ_{12}
 650 : $P_{175279} = (46, 49, 41, 1)$ lies on line ℓ_{11}
 651 : $P_{175819} = (10, 58, 41, 1)$ lies on line ℓ_{13}
 652 : $P_{176257} = (0, 1, 42, 1)$ lies on line ℓ_1
 653 : $P_{177364} = (19, 18, 42, 1)$ lies on line ℓ_2
 654 : $P_{177427} = (18, 19, 42, 1)$ lies on line ℓ_3
 655 : $P_{177611} = (10, 22, 42, 1)$ lies on line ℓ_{13}
 656 : $P_{177638} = (37, 22, 42, 1)$ lies on line ℓ_5
 657 : $P_{177901} = (44, 26, 42, 1)$ lies on line ℓ_9
 658 : $P_{178190} = (13, 31, 42, 1)$ lies on line ℓ_{12}
 659 : $P_{178378} = (9, 34, 42, 1)$ lies on line ℓ_4
 660 : $P_{178415} = (46, 34, 42, 1)$ lies on line ℓ_8
 661 : $P_{178507} = (10, 36, 42, 1)$ lies on line ℓ_7
 662 : $P_{178630} = (5, 38, 42, 1)$ lies on line ℓ_6
 663 : $P_{178991} = (46, 43, 42, 1)$ lies on line ℓ_{11}
 664 : $P_{179110} = (37, 45, 42, 1)$ lies on line ℓ_{14}
 665 : $P_{180055} = (22, 60, 42, 1)$ lies on line ℓ_{10}
 666 : $P_{180155} = (58, 61, 42, 1)$ lies on line ℓ_{15}
 667 : $P_{180353} = (0, 1, 43, 1)$ lies on line ℓ_1
 668 : $P_{180463} = (46, 2, 43, 1)$ lies on line ℓ_{11}
 669 : $P_{180646} = (37, 5, 43, 1)$ lies on line ℓ_5
 670 : $P_{181414} = (37, 17, 43, 1)$ lies on line ℓ_{14}
 671 : $P_{181460} = (19, 18, 43, 1)$ lies on line ℓ_3
 672 : $P_{181523} = (18, 19, 43, 1)$ lies on line ℓ_2
 673 : $P_{181602} = (33, 20, 43, 1)$ lies on line ℓ_{10}
 674 : $P_{182668} = (11, 37, 43, 1)$ lies on line ℓ_{12}
 675 : $P_{183179} = (10, 45, 43, 1)$ lies on line ℓ_{13}
 676 : $P_{183418} = (57, 48, 43, 1)$ lies on line ℓ_4
 677 : $P_{183881} = (8, 56, 43, 1)$ lies on line ℓ_6
 678 : $P_{183989} = (52, 57, 43, 1)$ lies on line ℓ_9
 679 : $P_{184075} = (10, 59, 43, 1)$ lies on line ℓ_7
 680 : $P_{184449} = (0, 1, 44, 1)$ lies on line ℓ_1
 681 : $P_{184620} = (43, 3, 44, 1)$ lies on line ℓ_6
 682 : $P_{184806} = (37, 6, 44, 1)$ lies on line ℓ_{14}
 683 : $P_{184843} = (10, 7, 44, 1)$ lies on line ℓ_7
 684 : $P_{185288} = (7, 14, 44, 1)$ lies on line ℓ_{10}
 685 : $P_{185444} = (35, 16, 44, 1)$ lies on line ℓ_{15}
 686 : $P_{185566} = (29, 18, 44, 1)$ lies on line ℓ_9
 687 : $P_{185686} = (21, 20, 44, 1)$ lies on line ℓ_2
 688 : $P_{185749} = (20, 21, 44, 1)$ lies on line ℓ_3
 689 : $P_{186278} = (37, 29, 44, 1)$ lies on line ℓ_5
 690 : $P_{186415} = (46, 31, 44, 1)$ lies on line ℓ_{11}
 691 : $P_{186458} = (25, 32, 44, 1)$ lies on line ℓ_{12}
 692 : $P_{187247} = (46, 44, 44, 1)$ lies on line ℓ_8
 693 : $P_{188545} = (0, 1, 45, 1)$ lies on line ℓ_1
 694 : $P_{189414} = (37, 14, 45, 1)$ lies on line ℓ_5
 695 : $P_{189423} = (46, 14, 45, 1)$ lies on line ℓ_8
 696 : $P_{189771} = (10, 20, 45, 1)$ lies on line ℓ_{13}
 697 : $P_{189782} = (21, 20, 45, 1)$ lies on line ℓ_3
 698 : $P_{189845} = (20, 21, 45, 1)$ lies on line ℓ_2
 699 : $P_{190027} = (10, 24, 45, 1)$ lies on line ℓ_7
 700 : $P_{190176} = (31, 26, 45, 1)$ lies on line ℓ_{12}
 701 : $P_{190375} = (38, 29, 45, 1)$ lies on line ℓ_6

702 : $P_{190961} = (48, 38, 45, 1)$ lies on line ℓ_{10}
 703 : $P_{191416} = (55, 45, 45, 1)$ lies on line ℓ_{15}
 704 : $P_{191622} = (5, 49, 45, 1)$ lies on line ℓ_9
 705 : $P_{191983} = (46, 54, 45, 1)$ lies on line ℓ_{11}
 706 : $P_{192230} = (37, 58, 45, 1)$ lies on line ℓ_{14}
 707 : $P_{192443} = (58, 61, 45, 1)$ lies on line ℓ_4
 708 : $P_{192641} = (0, 1, 46, 1)$ lies on line ℓ_1
 709 : $P_{193199} = (46, 9, 46, 1)$ lies on line ℓ_8
 710 : $P_{194008} = (23, 22, 46, 1)$ lies on line ℓ_2
 711 : $P_{194071} = (22, 23, 46, 1)$ lies on line ℓ_3
 712 : $P_{194598} = (37, 31, 46, 1)$ lies on line ℓ_{14}
 713 : $P_{195439} = (46, 44, 46, 1)$ lies on line ℓ_{11}
 714 : $P_{195990} = (21, 53, 46, 1)$ lies on line ℓ_{12}
 715 : $P_{196014} = (45, 53, 46, 1)$ lies on line ℓ_9
 716 : $P_{196171} = (10, 56, 46, 1)$ lies on line ℓ_{13}
 717 : $P_{196235} = (10, 57, 46, 1)$ lies on line ℓ_7
 718 : $P_{196390} = (37, 59, 46, 1)$ lies on line ℓ_5
 719 : $P_{196617} = (8, 63, 46, 1)$ lies on line ℓ_{10}
 720 : $P_{196658} = (49, 63, 46, 1)$ lies on line ℓ_6
 721 : $P_{196737} = (0, 1, 47, 1)$ lies on line ℓ_1
 722 : $P_{196875} = (10, 3, 47, 1)$ lies on line ℓ_{13}
 723 : $P_{197039} = (46, 5, 47, 1)$ lies on line ℓ_{11}
 724 : $P_{197652} = (19, 15, 47, 1)$ lies on line ℓ_{12}
 725 : $P_{198104} = (23, 22, 47, 1)$ lies on line ℓ_3
 726 : $P_{198134} = (53, 22, 47, 1)$ lies on line ℓ_9
 727 : $P_{198167} = (22, 23, 47, 1)$ lies on line ℓ_2
 728 : $P_{198208} = (63, 23, 47, 1)$ lies on line ℓ_{10}
 729 : $P_{198332} = (59, 25, 47, 1)$ lies on line ℓ_4
 730 : $P_{198845} = (60, 33, 47, 1)$ lies on line ℓ_6
 731 : $P_{198950} = (37, 35, 47, 1)$ lies on line ℓ_{14}
 732 : $P_{199115} = (10, 38, 47, 1)$ lies on line ℓ_7
 733 : $P_{199270} = (37, 40, 47, 1)$ lies on line ℓ_5
 734 : $P_{199471} = (46, 43, 47, 1)$ lies on line ℓ_8
 735 : $P_{200160} = (31, 54, 47, 1)$ lies on line ℓ_{15}
 736 : $P_{200833} = (0, 1, 48, 1)$ lies on line ℓ_1
 737 : $P_{201277} = (60, 7, 48, 1)$ lies on line ℓ_{10}
 738 : $P_{201290} = (9, 8, 48, 1)$ lies on line ℓ_2
 739 : $P_{201353} = (8, 9, 48, 1)$ lies on line ℓ_3
 740 : $P_{201455} = (46, 10, 48, 1)$ lies on line ℓ_{11}
 741 : $P_{202598} = (37, 28, 48, 1)$ lies on line ℓ_5
 742 : $P_{202651} = (26, 29, 48, 1)$ lies on line ℓ_9
 743 : $P_{203275} = (10, 39, 48, 1)$ lies on line ℓ_{13}
 744 : $P_{203653} = (4, 45, 48, 1)$ lies on line ℓ_6
 745 : $P_{203928} = (23, 49, 48, 1)$ lies on line ℓ_{15}
 746 : $P_{203973} = (4, 50, 48, 1)$ lies on line ℓ_4
 747 : $P_{204145} = (48, 52, 48, 1)$ lies on line ℓ_{12}
 748 : $P_{204171} = (10, 53, 48, 1)$ lies on line ℓ_7
 749 : $P_{204582} = (37, 59, 48, 1)$ lies on line ℓ_{14}
 750 : $P_{204847} = (46, 63, 48, 1)$ lies on line ℓ_8
 751 : $P_{204929} = (0, 1, 49, 1)$ lies on line ℓ_1
 752 : $P_{205350} = (37, 7, 49, 1)$ lies on line ℓ_{14}
 753 : $P_{205386} = (9, 8, 49, 1)$ lies on line ℓ_3
 754 : $P_{205449} = (8, 9, 49, 1)$ lies on line ℓ_2
 755 : $P_{205636} = (3, 12, 49, 1)$ lies on line ℓ_{15}

756 : $P_{205815} = (54, 14, 49, 1)$ lies on line ℓ_{12}
 757 : $P_{205862} = (37, 15, 49, 1)$ lies on line ℓ_5
 758 : $P_{206667} = (10, 28, 49, 1)$ lies on line ℓ_{13}
 759 : $P_{206767} = (46, 29, 49, 1)$ lies on line ℓ_8
 760 : $P_{206965} = (52, 32, 49, 1)$ lies on line ℓ_4
 761 : $P_{207151} = (46, 35, 49, 1)$ lies on line ℓ_{11}
 762 : $P_{207563} = (10, 42, 49, 1)$ lies on line ℓ_7
 763 : $P_{207884} = (11, 47, 49, 1)$ lies on line ℓ_{10}
 764 : $P_{208138} = (9, 51, 49, 1)$ lies on line ℓ_6
 765 : $P_{208835} = (2, 62, 49, 1)$ lies on line ℓ_9
 766 : $P_{209025} = (0, 1, 50, 1)$ lies on line ℓ_1
 767 : $P_{209612} = (11, 10, 50, 1)$ lies on line ℓ_2
 768 : $P_{210079} = (30, 17, 50, 1)$ lies on line ℓ_6
 769 : $P_{210374} = (5, 22, 50, 1)$ lies on line ℓ_4
 770 : $P_{210671} = (46, 26, 50, 1)$ lies on line ℓ_8
 771 : $P_{211133} = (60, 33, 50, 1)$ lies on line ℓ_{12}
 772 : $P_{211174} = (37, 34, 50, 1)$ lies on line ℓ_{14}
 773 : $P_{211712} = (63, 42, 50, 1)$ lies on line ℓ_{15}
 774 : $P_{212043} = (10, 48, 50, 1)$ lies on line ℓ_{13}
 775 : $P_{212468} = (51, 54, 50, 1)$ lies on line ℓ_{10}
 776 : $P_{212655} = (46, 57, 50, 1)$ lies on line ℓ_{11}
 777 : $P_{212710} = (37, 58, 50, 1)$ lies on line ℓ_5
 778 : $P_{212715} = (42, 58, 50, 1)$ lies on line ℓ_9
 779 : $P_{213121} = (0, 1, 51, 1)$ lies on line ℓ_1
 780 : $P_{213366} = (53, 4, 51, 1)$ lies on line ℓ_4
 781 : $P_{213708} = (11, 10, 51, 1)$ lies on line ℓ_3
 782 : $P_{214036} = (19, 15, 51, 1)$ lies on line ℓ_6
 783 : $P_{214127} = (46, 16, 51, 1)$ lies on line ℓ_{11}
 784 : $P_{214347} = (10, 20, 51, 1)$ lies on line ℓ_7
 785 : $P_{214572} = (43, 23, 51, 1)$ lies on line ℓ_{15}
 786 : $P_{214707} = (50, 25, 51, 1)$ lies on line ℓ_9
 787 : $P_{214843} = (58, 27, 51, 1)$ lies on line ℓ_{12}
 788 : $P_{214981} = (4, 30, 51, 1)$ lies on line ℓ_{10}
 789 : $P_{215014} = (37, 30, 51, 1)$ lies on line ℓ_{14}
 790 : $P_{215718} = (37, 41, 51, 1)$ lies on line ℓ_5
 791 : $P_{216687} = (46, 56, 51, 1)$ lies on line ℓ_8
 792 : $P_{217217} = (0, 1, 52, 1)$ lies on line ℓ_1
 793 : $P_{217443} = (34, 4, 52, 1)$ lies on line ℓ_{10}
 794 : $P_{217639} = (38, 7, 52, 1)$ lies on line ℓ_{15}
 795 : $P_{217739} = (10, 9, 52, 1)$ lies on line ℓ_{13}
 796 : $P_{217766} = (37, 9, 52, 1)$ lies on line ℓ_{14}
 797 : $P_{217934} = (13, 12, 52, 1)$ lies on line ℓ_2
 798 : $P_{217997} = (12, 13, 52, 1)$ lies on line ℓ_3
 799 : $P_{218031} = (46, 13, 52, 1)$ lies on line ℓ_{11}
 800 : $P_{218479} = (46, 20, 52, 1)$ lies on line ℓ_8
 801 : $P_{218887} = (6, 27, 52, 1)$ lies on line ℓ_4
 802 : $P_{219113} = (40, 30, 52, 1)$ lies on line ℓ_{12}
 803 : $P_{219723} = (10, 40, 52, 1)$ lies on line ℓ_7
 804 : $P_{220326} = (37, 49, 52, 1)$ lies on line ℓ_5
 805 : $P_{220380} = (27, 50, 52, 1)$ lies on line ℓ_9
 806 : $P_{220529} = (48, 52, 52, 1)$ lies on line ℓ_6
 807 : $P_{221313} = (0, 1, 53, 1)$ lies on line ℓ_1
 808 : $P_{221879} = (54, 9, 53, 1)$ lies on line ℓ_4
 809 : $P_{222030} = (13, 12, 53, 1)$ lies on line ℓ_3

810 : $P_{222093} = (12, 13, 53, 1)$ lies on line ℓ_2
811 : $P_{222340} = (3, 17, 53, 1)$ lies on line ℓ_9
812 : $P_{223462} = (37, 34, 53, 1)$ lies on line ℓ_5
813 : $P_{223998} = (61, 42, 53, 1)$ lies on line ℓ_6
814 : $P_{224086} = (21, 44, 53, 1)$ lies on line ℓ_{10}
815 : $P_{224459} = (10, 50, 53, 1)$ lies on line ℓ_{13}
816 : $P_{224678} = (37, 53, 53, 1)$ lies on line ℓ_{14}
817 : $P_{224751} = (46, 54, 53, 1)$ lies on line ℓ_8
818 : $P_{224779} = (10, 55, 53, 1)$ lies on line ℓ_7
819 : $P_{225011} = (50, 58, 53, 1)$ lies on line ℓ_{15}
820 : $P_{225409} = (0, 1, 54, 1)$ lies on line ℓ_1
821 : $P_{225899} = (42, 8, 54, 1)$ lies on line ℓ_6
822 : $P_{226085} = (36, 11, 54, 1)$ lies on line ℓ_{12}
823 : $P_{226256} = (15, 14, 54, 1)$ lies on line ℓ_2
824 : $P_{226319} = (14, 15, 54, 1)$ lies on line ℓ_3
825 : $P_{226406} = (37, 16, 54, 1)$ lies on line ℓ_{14}
826 : $P_{226732} = (43, 21, 54, 1)$ lies on line ℓ_9
827 : $P_{226763} = (10, 22, 54, 1)$ lies on line ℓ_7
828 : $P_{226854} = (37, 23, 54, 1)$ lies on line ℓ_5
829 : $P_{227151} = (14, 28, 54, 1)$ lies on line ℓ_{15}
830 : $P_{227275} = (10, 30, 54, 1)$ lies on line ℓ_{13}
831 : $P_{228527} = (46, 49, 54, 1)$ lies on line ℓ_8
832 : $P_{228782} = (45, 53, 54, 1)$ lies on line ℓ_{10}
833 : $P_{229359} = (46, 62, 54, 1)$ lies on line ℓ_{11}
834 : $P_{229384} = (7, 63, 54, 1)$ lies on line ℓ_4
835 : $P_{229505} = (0, 1, 55, 1)$ lies on line ℓ_1
836 : $P_{229734} = (37, 4, 55, 1)$ lies on line ℓ_5
837 : $P_{230027} = (10, 9, 55, 1)$ lies on line ℓ_7
838 : $P_{230352} = (15, 14, 55, 1)$ lies on line ℓ_3
839 : $P_{230415} = (14, 15, 55, 1)$ lies on line ℓ_2
840 : $P_{230703} = (46, 19, 55, 1)$ lies on line ℓ_8
841 : $P_{230888} = (39, 22, 55, 1)$ lies on line ℓ_6
842 : $P_{230959} = (46, 23, 55, 1)$ lies on line ℓ_{11}
843 : $P_{231323} = (26, 29, 55, 1)$ lies on line ℓ_{10}
844 : $P_{231579} = (26, 33, 55, 1)$ lies on line ℓ_{15}
845 : $P_{231819} = (10, 37, 55, 1)$ lies on line ℓ_{13}
846 : $P_{232294} = (37, 44, 55, 1)$ lies on line ℓ_{14}
847 : $P_{232376} = (55, 45, 55, 1)$ lies on line ℓ_4
848 : $P_{232611} = (34, 49, 55, 1)$ lies on line ℓ_{12}
849 : $P_{232948} = (51, 54, 55, 1)$ lies on line ℓ_9
850 : $P_{233538} = (1, 0, 56, 1)$ lies on line ℓ_2
851 : $P_{233839} = (46, 4, 56, 1)$ lies on line ℓ_{11}
852 : $P_{234095} = (46, 8, 56, 1)$ lies on line ℓ_8
853 : $P_{234507} = (10, 15, 56, 1)$ lies on line ℓ_7
854 : $P_{235211} = (10, 26, 56, 1)$ lies on line ℓ_{13}
855 : $P_{235534} = (13, 31, 56, 1)$ lies on line ℓ_6
856 : $P_{235737} = (24, 34, 56, 1)$ lies on line ℓ_9
857 : $P_{236070} = (37, 39, 56, 1)$ lies on line ℓ_5
858 : $P_{237397} = (20, 60, 56, 1)$ lies on line ℓ_{15}
859 : $P_{237542} = (37, 62, 56, 1)$ lies on line ℓ_{14}
860 : $P_{237634} = (1, 0, 57, 1)$ lies on line ℓ_3
861 : $P_{237798} = (37, 2, 57, 1)$ lies on line ℓ_{14}
862 : $P_{238667} = (10, 16, 57, 1)$ lies on line ℓ_7
863 : $P_{238897} = (48, 19, 57, 1)$ lies on line ℓ_4
864 : $P_{239755} = (10, 33, 57, 1)$ lies on line ℓ_{13}
865 : $P_{240312} = (55, 41, 57, 1)$ lies on line ℓ_{10}
866 : $P_{240367} = (46, 42, 57, 1)$ lies on line ℓ_8
867 : $P_{240559} = (46, 45, 57, 1)$ lies on line ℓ_{11}
868 : $P_{240998} = (37, 52, 57, 1)$ lies on line ℓ_5
869 : $P_{241415} = (6, 59, 57, 1)$ lies on line ℓ_{12}
870 : $P_{241793} = (0, 1, 58, 1)$ lies on line ℓ_1
871 : $P_{241830} = (37, 1, 58, 1)$ lies on line ℓ_5
872 : $P_{241860} = (3, 2, 58, 1)$ lies on line ℓ_2
873 : $P_{241923} = (2, 3, 58, 1)$ lies on line ℓ_3
874 : $P_{242089} = (40, 5, 58, 1)$ lies on line ℓ_9
875 : $P_{242571} = (10, 13, 58, 1)$ lies on line ℓ_{13}
876 : $P_{243021} = (12, 20, 58, 1)$ lies on line ℓ_{12}
877 : $P_{243992} = (23, 35, 58, 1)$ lies on line ℓ_6
878 : $P_{244098} = (1, 37, 58, 1)$ lies on line ℓ_4
879 : $P_{244262} = (37, 39, 58, 1)$ lies on line ℓ_{14}
880 : $P_{244285} = (60, 39, 58, 1)$ lies on line ℓ_{15}
881 : $P_{244655} = (46, 45, 58, 1)$ lies on line ℓ_8
882 : $P_{244816} = (15, 48, 58, 1)$ lies on line ℓ_{10}
883 : $P_{244875} = (10, 49, 58, 1)$ lies on line ℓ_7
884 : $P_{245295} = (46, 55, 58, 1)$ lies on line ℓ_{11}
885 : $P_{245889} = (0, 1, 59, 1)$ lies on line ℓ_1
886 : $P_{245956} = (3, 2, 59, 1)$ lies on line ℓ_3
887 : $P_{246019} = (2, 3, 59, 1)$ lies on line ℓ_2
888 : $P_{246831} = (46, 15, 59, 1)$ lies on line ℓ_8
889 : $P_{247014} = (37, 18, 59, 1)$ lies on line ℓ_5
890 : $P_{247417} = (56, 24, 59, 1)$ lies on line ℓ_{10}
891 : $P_{247529} = (40, 26, 59, 1)$ lies on line ℓ_{15}
892 : $P_{247590} = (37, 27, 59, 1)$ lies on line ℓ_{14}
893 : $P_{247791} = (46, 30, 59, 1)$ lies on line ℓ_{11}
894 : $P_{248305} = (48, 38, 59, 1)$ lies on line ℓ_9
895 : $P_{249291} = (10, 54, 59, 1)$ lies on line ℓ_{13}
896 : $P_{249394} = (49, 55, 59, 1)$ lies on line ℓ_4
897 : $P_{249755} = (26, 61, 59, 1)$ lies on line ℓ_6
898 : $P_{249985} = (0, 1, 60, 1)$ lies on line ℓ_1
899 : $P_{250079} = (30, 2, 60, 1)$ lies on line ℓ_{10}
900 : $P_{250159} = (46, 3, 60, 1)$ lies on line ℓ_{11}
901 : $P_{250182} = (5, 4, 60, 1)$ lies on line ℓ_2
902 : $P_{250245} = (4, 5, 60, 1)$ lies on line ℓ_3
903 : $P_{250362} = (57, 6, 60, 1)$ lies on line ℓ_6
904 : $P_{250726} = (37, 12, 60, 1)$ lies on line ℓ_{14}
905 : $P_{250778} = (25, 13, 60, 1)$ lies on line ℓ_9
906 : $P_{251083} = (10, 18, 60, 1)$ lies on line ℓ_7
907 : $P_{252207} = (46, 35, 60, 1)$ lies on line ℓ_8
908 : $P_{252483} = (2, 40, 60, 1)$ lies on line ℓ_4
909 : $P_{252697} = (24, 43, 60, 1)$ lies on line ℓ_{12}
910 : $P_{253259} = (10, 52, 60, 1)$ lies on line ℓ_{13}
911 : $P_{254081} = (0, 1, 61, 1)$ lies on line ℓ_1
912 : $P_{254127} = (46, 1, 61, 1)$ lies on line ℓ_8
913 : $P_{254278} = (5, 4, 61, 1)$ lies on line ℓ_3
914 : $P_{254341} = (4, 5, 61, 1)$ lies on line ℓ_2
915 : $P_{254859} = (10, 13, 61, 1)$ lies on line ℓ_7
916 : $P_{254987} = (10, 15, 61, 1)$ lies on line ℓ_{13}
917 : $P_{255135} = (30, 17, 61, 1)$ lies on line ℓ_{12}

918 : $P_{255605} = (52, 24, 61, 1)$ lies on line ℓ_6
 919 : $P_{255654} = (37, 25, 61, 1)$ lies on line ℓ_5
 920 : $P_{256746} = (41, 42, 61, 1)$ lies on line ℓ_{10}
 921 : $P_{256751} = (46, 42, 61, 1)$ lies on line ℓ_{11}
 922 : $P_{256962} = (1, 46, 61, 1)$ lies on line ℓ_9
 923 : $P_{257126} = (37, 48, 61, 1)$ lies on line ℓ_{14}
 924 : $P_{257586} = (49, 55, 61, 1)$ lies on line ℓ_{15}
 925 : $P_{257779} = (50, 58, 61, 1)$ lies on line ℓ_4
 926 : $P_{258177} = (0, 1, 62, 1)$ lies on line ℓ_1
 927 : $P_{258504} = (7, 6, 62, 1)$ lies on line ℓ_2
 928 : $P_{258543} = (46, 6, 62, 1)$ lies on line ℓ_8
 929 : $P_{258567} = (6, 7, 62, 1)$ lies on line ℓ_3
 930 : $P_{258884} = (3, 12, 62, 1)$ lies on line ℓ_4
 931 : $P_{259214} = (13, 17, 62, 1)$ lies on line ℓ_{15}
 932 : $P_{259494} = (37, 21, 62, 1)$ lies on line ℓ_{14}
 933 : $P_{260363} = (10, 35, 62, 1)$ lies on line ℓ_{13}
 934 : $P_{260842} = (41, 42, 62, 1)$ lies on line ℓ_9
 935 : $P_{260939} = (10, 44, 62, 1)$ lies on line ℓ_7
 936 : $P_{260966} = (37, 44, 62, 1)$ lies on line ℓ_5
 937 : $P_{261231} = (46, 48, 62, 1)$ lies on line ℓ_{11}
 938 : $P_{261394} = (17, 51, 62, 1)$ lies on line ℓ_{10}
 939 : $P_{261860} = (35, 58, 62, 1)$ lies on line ℓ_6
 940 : $P_{262101} = (20, 62, 62, 1)$ lies on line ℓ_{12}
 941 : $P_{262273} = (0, 1, 63, 1)$ lies on line ℓ_1
 942 : $P_{262483} = (18, 4, 63, 1)$ lies on line ℓ_{12}
 943 : $P_{262600} = (7, 6, 63, 1)$ lies on line ℓ_3
 944 : $P_{262663} = (6, 7, 63, 1)$ lies on line ℓ_2
 945 : $P_{262834} = (49, 9, 63, 1)$ lies on line ℓ_9
 946 : $P_{263755} = (10, 24, 63, 1)$ lies on line ℓ_{13}
 947 : $P_{263855} = (46, 25, 63, 1)$ lies on line ℓ_{11}
 948 : $P_{263975} = (38, 27, 63, 1)$ lies on line ℓ_{10}
 949 : $P_{264180} = (51, 30, 63, 1)$ lies on line ℓ_4
 950 : $P_{264870} = (37, 41, 63, 1)$ lies on line ℓ_{14}
 951 : $P_{265050} = (25, 44, 63, 1)$ lies on line ℓ_{15}
 952 : $P_{265483} = (10, 51, 63, 1)$ lies on line ℓ_7
 953 : $P_{266278} = (37, 63, 63, 1)$ lies on line ℓ_5

The single points on the surface are:

Points on surface but on no line

The surface has 3423 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	0	0	0	1	0	1	1	0	0	1	0	1	1	0
1	1	0	1	1	1	0	1	0	0	1	1	0	1	0	0	1
2	0	1	0	1	0	1	1	0	0	1	0	1	0	1	0	1
3	0	1	1	0	1	0	0	1	1	0	1	0	1	0	1	0
4	0	1	0	1	0	0	0	0	0	0	1	1	1	1	1	1
5	1	0	1	0	0	0	0	0	0	0	1	0	1	0	1	1
6	0	1	1	0	0	0	0	0	1	1	0	0	1	1	1	1
7	1	0	0	1	0	0	0	0	0	1	0	0	1	1	0	1
8	1	0	0	1	0	0	1	0	0	0	1	1	0	0	0	1
9	0	1	1	0	0	0	1	1	0	0	1	1	0	0	1	1
10	0	1	0	1	1	1	0	0	1	1	0	0	1	1	0	0
11	1	0	1	0	1	0	0	0	1	1	0	0	1	0	0	0
12	0	1	0	1	1	1	1	1	0	0	1	1	0	0	0	0
13	1	0	1	0	1	0	1	1	0	0	1	0	0	0	0	0
14	1	0	0	1	1	1	1	0	0	1	0	0	0	0	0	0
15	0	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_1	ℓ_5	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{13}	ℓ_{14}
in point	P_2	P_{1283}	P_{2051}	P_{2243}	P_{2691}	P_{3843}	P_{3907}

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_4	ℓ_6	ℓ_9	ℓ_{10}	ℓ_{12}	ℓ_{15}
in point	P_2	P_{237697}	P_{233601}	P_{233601}	P_{237697}	P_{237697}	P_{233601}	P_{233601}	P_{237697}

Line 2 intersects

Line	ℓ_1	ℓ_3	ℓ_5	ℓ_6	ℓ_9	ℓ_{11}	ℓ_{13}	ℓ_{15}
in point	P_{237697}	P_{132}	P_{121190}	P_{237697}	P_{237697}	P_{101423}	P_{213771}	P_{237697}

Line 3 intersects

Line	ℓ_1	ℓ_2	ℓ_4	ℓ_7	ℓ_8	ℓ_{10}	ℓ_{12}	ℓ_{14}
in point	P_{233601}	P_{132}	P_{233601}	P_{209675}	P_{97327}	P_{233601}	P_{233601}	P_{125286}

Line 4 intersects

Line	ℓ_1	ℓ_3	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}
in point	P_{233601}	P_{233601}	P_{233601}	P_{24687}	P_{233601}	P_{187403}	P_{82662}	P_{193292}

Line 5 intersects

Line	ℓ_0	ℓ_2	ℓ_{10}	ℓ_{12}	ℓ_{14}	ℓ_{15}
in point	P_{1283}	P_{121190}	P_{135974}	P_{159846}	P_{6567}	P_{250598}

Line 6 intersects

Line	ℓ_1	ℓ_2	ℓ_8	ℓ_9	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}
in point	P_{237697}	P_{237697}	P_{264559}	P_{237697}	P_{158768}	P_{134091}	P_{16486}	P_{237697}

Line 7 intersects

Line	ℓ_0	ℓ_3	ℓ_9	ℓ_{12}	ℓ_{13}	ℓ_{15}
in point	P_{2051}	P_{209675}	P_{73803}	P_{248779}	P_{4812}	P_{44043}

Line 8 intersects

Line	ℓ_0	ℓ_3	ℓ_6	ℓ_{10}	ℓ_{11}	ℓ_{15}
in point	P_{2243}	P_{97327}	P_{264559}	P_{174511}	P_{7152}	P_{180335}

Line 9 intersects

Line	ℓ_1	ℓ_2	ℓ_6	ℓ_7	ℓ_{10}	ℓ_{11}	ℓ_{14}	ℓ_{15}
in point	P_{237697}	P_{237697}	P_{237697}	P_{73803}	P_{47461}	P_{145839}	P_{62246}	P_{237697}

Line 10 intersects

Line	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_8	ℓ_9	ℓ_{12}	ℓ_{13}
in point	P_{233601}	P_{233601}	P_{233601}	P_{135974}	P_{174511}	P_{47461}	P_{233601}	P_{114763}

Line 11 intersects

Line	ℓ_0	ℓ_2	ℓ_4	ℓ_8	ℓ_9	ℓ_{12}
in point	P_{2691}	P_{101423}	P_{24687}	P_{7152}	P_{145839}	P_{223599}

Line 12 intersects

Line	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_{10}	ℓ_{11}
in point	P_{233601}	P_{233601}	P_{233601}	P_{159846}	P_{158768}	P_{248779}	P_{233601}	P_{223599}

Line 13 intersects

Line	ℓ_0	ℓ_2	ℓ_4	ℓ_6	ℓ_7	ℓ_{10}
in point	P_{3843}	P_{213771}	P_{187403}	P_{134091}	P_{4812}	P_{114763}

Line 14 intersects

Line	ℓ_0	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_9
in point	P_{3907}	P_{125286}	P_{82662}	P_{6567}	P_{16486}	P_{62246}

Line 15 intersects

Line	ℓ_1	ℓ_2	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9
in point	P_{237697}	P_{237697}	P_{193292}	P_{250598}	P_{237697}	P_{44043}	P_{180335}	P_{237697}

The surface has 4417 points:

Too many to print.