Rank-65868 over GF(64)

January 15, 2021

The equation

The equation of the surface is :

$$X_0^3 + X_3^3 + X_0^2X_3 + X_1^2X_2 + X_0X_1X_2 = 0$$

(1, 0, 0, 1, 0, 0, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(64) is 1091047494

General information

Number of lines	15
Number of points	4417
Number of singular points	1
Number of Eckardt points	1
Number of double points	33
Number of single points	900
Number of points off lines	3482
Number of Hesse planes	0
Number of axes	0
Type of points on lines	65^{15}
Type of lines on points	6, 3, 2^{33}, 1^{900}, 0^{3482}

Singular Points

The surface has 1 singular points:

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

The 15 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & \epsilon^9 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{12516288} = \begin{bmatrix} 1 & 0 & 0 & 47 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{12516288} = \mathbf{Pl}(10,0,0,1,0,0)_{139}$$

$$\ell_1 = \left[\begin{array}{cccc} 1 & 0 & 0 & \epsilon^{18} \\ 0 & 1 & 0 & 0 \end{array}\right]_{2929344} = \left[\begin{array}{cccc} 1 & 0 & 0 & 11 \\ 0 & 1 & 0 & 0 \end{array}\right]_{2929344} = \mathbf{Pl}(37,0,0,1,0,0)_{166}$$

$$\ell_2 = \left[\begin{array}{cccc} 1 & 0 & 0 & \epsilon^{36} \\ 0 & 1 & 0 & 0 \end{array}\right]_{9586944} = \left[\begin{array}{cccc} 1 & 0 & 0 & 36 \\ 0 & 1 & 0 & 0 \end{array}\right]_{9586944} = \mathbf{Pl}(46,0,0,1,0,0)_{175}$$

$$\ell_3 = \left[\begin{array}{cccc} 1 & 0 & 0 & \epsilon^{9} \\ 0 & 0 & 1 & 0 \end{array}\right]_{12520384} = \left[\begin{array}{cccc} 1 & 0 & 0 & 47 \\ 0 & 0 & 1 & 0 \end{array}\right]_{12520384} = \mathbf{Pl}(0,47,1,0,0,0)_{112}$$

$$\ell_4 = \left[\begin{array}{cccc} 1 & 0 & 0 & \epsilon^{18} \\ 0 & 0 & 1 & 0 \end{array}\right]_{2933440} = \left[\begin{array}{cccc} 1 & 0 & 0 & 11 \\ 0 & 0 & 1 & 0 \end{array}\right]_{2933440} = \mathbf{Pl}(0,11,1,0,0,0)_{76}$$

$$\ell_5 = \left[\begin{array}{cccc} 1 & 0 & 0 & \epsilon^{36} \\ 0 & 0 & 1 & 0 \end{array}\right]_{9591040} = \left[\begin{array}{cccc} 1 & 0 & 0 & 36 \\ 0 & 0 & 1 & 0 \end{array}\right]_{9591040} = \mathbf{Pl}(0,36,1,0,0,0)_{101}$$

$$\ell_6 = \left[\begin{array}{cccc} 1 & 1 & 0 & \epsilon^{9} \\ 0 & 0 & 1 & 0 \end{array}\right]_{12524545} = \left[\begin{array}{cccc} 1 & 1 & 0 & 47 \\ 0 & 0 & 1 & 0 \end{array}\right]_{12524545} = \mathbf{Pl}(0,47,1,0,0,1)_{270638}$$

$$\ell_7 = \left[\begin{array}{cccc} 1 & 1 & 0 & \epsilon^{18} \\ 0 & 0 & 1 & 0 \end{array}\right]_{2937601} = \left[\begin{array}{cccc} 1 & 1 & 0 & 11 \\ 0 & 0 & 1 & 0 \end{array}\right]_{2937601} = \mathbf{Pl}(0,11,1,0,0,1)_{270602}$$

$$\ell_8 = \left[\begin{array}{cccc} 1 & 1 & 0 & \epsilon^{36} \\ 0 & 0 & 1 & 0 \end{array}\right]_{9595201} = \left[\begin{array}{cccc} 1 & 1 & 0 & 36 \\ 0 & 0 & 1 & 0 \end{array}\right]_{9595201} = \mathbf{Pl}(0,36,1,0,0,1)_{270627}$$

$$\ell_9 = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{18} & \epsilon^{18} \\ 0 & 1 & \epsilon^{45} & \epsilon^{36} \end{array}\right]_{2977456} = \left[\begin{array}{cccc} 1 & 0 & 11 & 11 \\ 0 & 1 & 37 & 36 \end{array}\right]_{2977456} = \mathbf{Pl}(1,1,1,1,11,1)_{3176214}$$

$$\ell_{10} = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{36} & \epsilon^{36} \\ 0 & 1 & \epsilon^{27} & \epsilon^{9} \end{array}\right]_{9739794} = \left[\begin{array}{cccc} 1 & 0 & 36 & 36 \\ 0 & 1 & 46 & 47 \end{array}\right]_{9739794} = \mathbf{Pl}(1,1,1,1,36,1)_{9725946}$$

$$\ell_{11} = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{9} & \epsilon^{9} \\ 0 & 1 & \epsilon^{54} & \epsilon^{18} \end{array}\right]_{12712569} = \left[\begin{array}{cccc} 1 & 0 & 47 & 47 \\ 0 & 1 & 10 & 11 \end{array}\right]_{12712569} = \mathbf{Pl}(1,1,1,1,47,1)_{12610401}$$

$$\ell_{12} = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{27} & \epsilon^{9} \\ 0 & 1 & \epsilon^{45} & \epsilon^{36} \end{array}\right]_{12710035} = \left[\begin{array}{cccc} 1 & 0 & 46 & 47 \\ 0 & 1 & 37 & 36 \end{array}\right]_{12710035} = \mathbf{Pl}(47,10,11,37,47,1)_{12647869}$$

$$\ell_{13} = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{54} & \epsilon^{18} \\ 0 & 1 & \epsilon^{27} & \epsilon^{9} \end{array}\right]_{2974008} = \left[\begin{array}{cccc} 1 & 0 & 10 & 11 \\ 0 & 1 & 46 & 47 \end{array}\right]_{2974008} = \mathbf{Pl}(11,37,36,46,11,1)_{3312304}$$

$$\ell_{14} = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{45} & \epsilon^{36} \\ 0 & 1 & \epsilon^{54} & \epsilon^{18} \end{array}\right]_{9741615} = \left[\begin{array}{cccc} 1 & 0 & 37 & 36 \\ 0 & 1 & 10 & 11 \end{array}\right]_{9741615} = \mathbf{Pl}(36,46,47,10,36,1)_{9907862}$$

Rank of lines: (12516288, 2929344, 9586944, 12520384, 2933440, 9591040, 12524545, 2937601, 9595201, 2977456, 9739794, 12712569, 12710035, 2974008, 9741615)
Rank of points on Klein quadric: (139, 166, 175, 112, 76, 101, 270638, 270602, 270627, 3176214, 9725946, 12610401, 12647869, 3312304, 9907862)

Eckardt Points

The surface has 1 Eckardt points:
$0 : P_1 = \mathbf{P}(0,1,0,0) = \mathbf{P}(0,1,0,0)$.

Double Points

The surface has 33 Double points:
The double points on the surface are:

$P_{4172} = (10, 0, 0, 1) = \ell_0 \cap \ell_3$
$P_{4812} = (10, 10, 0, 1) = \ell_0 \cap \ell_6$
$P_{4236} = (10, 1, 0, 1) = \ell_0 \cap \ell_{10}$
$P_{4876} = (10, 11, 0, 1) = \ell_0 \cap \ell_{13}$
$P_{4199} = (37, 0, 0, 1) = \ell_1 \cap \ell_4$
$P_{6567} = (37, 37, 0, 1) = \ell_1 \cap \ell_7$
$P_{4263} = (37, 1, 0, 1) = \ell_1 \cap \ell_{11}$
$P_{6503} = (37, 36, 0, 1) = \ell_1 \cap \ell_{14}$
$P_{4208} = (46, 0, 0, 1) = \ell_2 \cap \ell_5$
$P_{7152} = (46, 46, 0, 1) = \ell_2 \cap \ell_8$
$P_{4272} = (46, 1, 0, 1) = \ell_2 \cap \ell_9$
$P_{7216} = (46, 47, 0, 1) = \ell_2 \cap \ell_{12}$
$P_{8268} = (10, 0, 1, 1) = \ell_3 \cap \ell_{11}$
$P_{49227} = (10, 0, 11, 1) = \ell_3 \cap \ell_{12}$
$P_{8295} = (37, 0, 1, 1) = \ell_4 \cap \ell_9$
$P_{151654} = (37, 0, 36, 1) = \ell_4 \cap \ell_{13}$
$P_{8304} = (46, 0, 1, 1) = \ell_5 \cap \ell_{10}$
$P_{196719} = (46, 0, 47, 1) = \ell_5 \cap \ell_{14}$
$P_{49867} = (10, 10, 11, 1) = \ell_6 \cap \ell_9$
$P_{8907} = (10, 10, 1, 1) = \ell_6 \cap \ell_{14}$
$P_{154022} = (37, 37, 36, 1) = \ell_7 \cap \ell_{10}$
$P_{10662} = (37, 37, 1, 1) = \ell_7 \cap \ell_{12}$
$P_{199663} = (46, 46, 47, 1) = \ell_8 \cap \ell_{11}$
$P_{11247} = (46, 46, 1, 1) = \ell_8 \cap \ell_{13}$
$P_{195596} = (11, 47, 46, 1) = \ell_9 \cap \ell_{10}$
$P_{158064} = (47, 36, 37, 1) = \ell_9 \cap \ell_{11}$
$P_{199617} = (0, 46, 47, 1) = \ell_9 \cap \ell_{12}$
$P_{45861} = (36, 11, 10, 1) = \ell_{10} \cap \ell_{11}$
$P_{49857} = (0, 10, 11, 1) = \ell_{10} \cap \ell_{13}$
$P_{153985} = (0, 37, 36, 1) = \ell_{11} \cap \ell_{14}$
$P_{194892} = (11, 36, 46, 1) = \ell_{12} \cap \ell_{13}$
$P_{156464} = (47, 11, 37, 1) = \ell_{12} \cap \ell_{14}$
$P_{48165} = (36, 47, 10, 1) = \ell_{13} \cap \ell_{14}$

Single Points

The surface has 900 single points:
The single points on the surface are:

0 : $P_{142} = (11, 1, 1, 0)$ lies on line ℓ_9
1 : $P_{167} = (36, 1, 1, 0)$ lies on line ℓ_{10}
2 : $P_{178} = (47, 1, 1, 0)$ lies on line ℓ_{11}
3 : $P_{718} = (11, 10, 1, 0)$ lies on line ℓ_{12}
4 : $P_{2471} = (36, 37, 1, 0)$ lies on line ℓ_{13}
5 : $P_{3058} = (47, 46, 1, 0)$ lies on line ℓ_{14}
6 : $P_{4300} = (10, 2, 0, 1)$ lies on line ℓ_0
7 : $P_{4327} = (37, 2, 0, 1)$ lies on line ℓ_1
8 : $P_{4336} = (46, 2, 0, 1)$ lies on line ℓ_2
9 : $P_{4364} = (10, 3, 0, 1)$ lies on line ℓ_0
10 : $P_{4391} = (37, 3, 0, 1)$ lies on line ℓ_1
11 : $P_{4400} = (46, 3, 0, 1)$ lies on line ℓ_2
12 : $P_{4428} = (10, 4, 0, 1)$ lies on line ℓ_0
13 : $P_{4455} = (37, 4, 0, 1)$ lies on line ℓ_1
14 : $P_{4464} = (46, 4, 0, 1)$ lies on line ℓ_2
15 : $P_{4492} = (10, 5, 0, 1)$ lies on line ℓ_0
16 : $P_{4519} = (37, 5, 0, 1)$ lies on line ℓ_1
17 : $P_{4528} = (46, 5, 0, 1)$ lies on line ℓ_2
18 : $P_{4556} = (10, 6, 0, 1)$ lies on line ℓ_0
19 : $P_{4583} = (37, 6, 0, 1)$ lies on line ℓ_1
20 : $P_{4592} = (46, 6, 0, 1)$ lies on line ℓ_2
21 : $P_{4620} = (10, 7, 0, 1)$ lies on line ℓ_0
22 : $P_{4647} = (37, 7, 0, 1)$ lies on line ℓ_1
23 : $P_{4656} = (46, 7, 0, 1)$ lies on line ℓ_2
24 : $P_{4684} = (10, 8, 0, 1)$ lies on line ℓ_0
25 : $P_{4711} = (37, 8, 0, 1)$ lies on line ℓ_1
26 : $P_{4720} = (46, 8, 0, 1)$ lies on line ℓ_2
27 : $P_{4748} = (10, 9, 0, 1)$ lies on line ℓ_0
28 : $P_{4775} = (37, 9, 0, 1)$ lies on line ℓ_1
29 : $P_{4784} = (46, 9, 0, 1)$ lies on line ℓ_2
30 : $P_{4839} = (37, 10, 0, 1)$ lies on line ℓ_1
31 : $P_{4848} = (46, 10, 0, 1)$ lies on line ℓ_2
32 : $P_{4903} = (37, 11, 0, 1)$ lies on line ℓ_1
33 : $P_{4912} = (46, 11, 0, 1)$ lies on line ℓ_2
34 : $P_{4940} = (10, 12, 0, 1)$ lies on line ℓ_0
35 : $P_{4967} = (37, 12, 0, 1)$ lies on line ℓ_1
36 : $P_{4976} = (46, 12, 0, 1)$ lies on line ℓ_2
37 : $P_{5004} = (10, 13, 0, 1)$ lies on line ℓ_0
38 : $P_{5031} = (37, 13, 0, 1)$ lies on line ℓ_1
39 : $P_{5040} = (46, 13, 0, 1)$ lies on line ℓ_2
40 : $P_{5068} = (10, 14, 0, 1)$ lies on line ℓ_0
41 : $P_{5095} = (37, 14, 0, 1)$ lies on line ℓ_1
42 : $P_{5104} = (46, 14, 0, 1)$ lies on line ℓ_2
43 : $P_{5132} = (10, 15, 0, 1)$ lies on line ℓ_0
44 : $P_{5159} = (37, 15, 0, 1)$ lies on line ℓ_1
45 : $P_{5168} = (46, 15, 0, 1)$ lies on line ℓ_2
46 : $P_{5196} = (10, 16, 0, 1)$ lies on line ℓ_0
47 : $P_{5223} = (37, 16, 0, 1)$ lies on line ℓ_1
48 : $P_{5232} = (46, 16, 0, 1)$ lies on line ℓ_2
49 : $P_{5260} = (10, 17, 0, 1)$ lies on line ℓ_0
50 : $P_{5287} = (37, 17, 0, 1)$ lies on line ℓ_1
51 : $P_{5296} = (46, 17, 0, 1)$ lies on line ℓ_2
52 : $P_{5324} = (10, 18, 0, 1)$ lies on line ℓ_0
53 : $P_{5351} = (37, 18, 0, 1)$ lies on line ℓ_1
54 : $P_{5360} = (46, 18, 0, 1)$ lies on line ℓ_2
55 : $P_{5388} = (10, 19, 0, 1)$ lies on line ℓ_0
56 : $P_{5415} = (37, 19, 0, 1)$ lies on line ℓ_1
57 : $P_{5424} = (46, 19, 0, 1)$ lies on line ℓ_2
58 : $P_{5452} = (10, 20, 0, 1)$ lies on line ℓ_0
59 : $P_{5479} = (37, 20, 0, 1)$ lies on line ℓ_1

60 : $P_{5488} = (46, 20, 0, 1)$ lies on line ℓ_2
61 : $P_{5516} = (10, 21, 0, 1)$ lies on line ℓ_0
62 : $P_{5543} = (37, 21, 0, 1)$ lies on line ℓ_1
63 : $P_{5552} = (46, 21, 0, 1)$ lies on line ℓ_2
64 : $P_{5580} = (10, 22, 0, 1)$ lies on line ℓ_0
65 : $P_{5607} = (37, 22, 0, 1)$ lies on line ℓ_1
66 : $P_{5616} = (46, 22, 0, 1)$ lies on line ℓ_2
67 : $P_{5644} = (10, 23, 0, 1)$ lies on line ℓ_0
68 : $P_{5671} = (37, 23, 0, 1)$ lies on line ℓ_1
69 : $P_{5680} = (46, 23, 0, 1)$ lies on line ℓ_2
70 : $P_{5708} = (10, 24, 0, 1)$ lies on line ℓ_0
71 : $P_{5735} = (37, 24, 0, 1)$ lies on line ℓ_1
72 : $P_{5744} = (46, 24, 0, 1)$ lies on line ℓ_2
73 : $P_{5772} = (10, 25, 0, 1)$ lies on line ℓ_0
74 : $P_{5799} = (37, 25, 0, 1)$ lies on line ℓ_1
75 : $P_{5808} = (46, 25, 0, 1)$ lies on line ℓ_2
76 : $P_{5836} = (10, 26, 0, 1)$ lies on line ℓ_0
77 : $P_{5863} = (37, 26, 0, 1)$ lies on line ℓ_1
78 : $P_{5872} = (46, 26, 0, 1)$ lies on line ℓ_2
79 : $P_{5900} = (10, 27, 0, 1)$ lies on line ℓ_0
80 : $P_{5927} = (37, 27, 0, 1)$ lies on line ℓ_1
81 : $P_{5936} = (46, 27, 0, 1)$ lies on line ℓ_2
82 : $P_{5964} = (10, 28, 0, 1)$ lies on line ℓ_0
83 : $P_{5991} = (37, 28, 0, 1)$ lies on line ℓ_1
84 : $P_{6000} = (46, 28, 0, 1)$ lies on line ℓ_2
85 : $P_{6028} = (10, 29, 0, 1)$ lies on line ℓ_0
86 : $P_{6055} = (37, 29, 0, 1)$ lies on line ℓ_1
87 : $P_{6064} = (46, 29, 0, 1)$ lies on line ℓ_2
88 : $P_{6092} = (10, 30, 0, 1)$ lies on line ℓ_0
89 : $P_{6119} = (37, 30, 0, 1)$ lies on line ℓ_1
90 : $P_{6128} = (46, 30, 0, 1)$ lies on line ℓ_2
91 : $P_{6156} = (10, 31, 0, 1)$ lies on line ℓ_0
92 : $P_{6183} = (37, 31, 0, 1)$ lies on line ℓ_1
93 : $P_{6192} = (46, 31, 0, 1)$ lies on line ℓ_2
94 : $P_{6220} = (10, 32, 0, 1)$ lies on line ℓ_0
95 : $P_{6247} = (37, 32, 0, 1)$ lies on line ℓ_1
96 : $P_{6256} = (46, 32, 0, 1)$ lies on line ℓ_2
97 : $P_{6284} = (10, 33, 0, 1)$ lies on line ℓ_0
98 : $P_{6311} = (37, 33, 0, 1)$ lies on line ℓ_1
99 : $P_{6320} = (46, 33, 0, 1)$ lies on line ℓ_2
100 : $P_{6348} = (10, 34, 0, 1)$ lies on line ℓ_0
101 : $P_{6375} = (37, 34, 0, 1)$ lies on line ℓ_1
102 : $P_{6384} = (46, 34, 0, 1)$ lies on line ℓ_2
103 : $P_{6412} = (10, 35, 0, 1)$ lies on line ℓ_0
104 : $P_{6439} = (37, 35, 0, 1)$ lies on line ℓ_1
105 : $P_{6448} = (46, 35, 0, 1)$ lies on line ℓ_2
106 : $P_{6476} = (10, 36, 0, 1)$ lies on line ℓ_0
107 : $P_{6512} = (46, 36, 0, 1)$ lies on line ℓ_2
108 : $P_{6540} = (10, 37, 0, 1)$ lies on line ℓ_0
109 : $P_{6576} = (46, 37, 0, 1)$ lies on line ℓ_2
110 : $P_{6604} = (10, 38, 0, 1)$ lies on line ℓ_0
111 : $P_{6631} = (37, 38, 0, 1)$ lies on line ℓ_1
112 : $P_{6640} = (46, 38, 0, 1)$ lies on line ℓ_2
113 : $P_{6668} = (10, 39, 0, 1)$ lies on line ℓ_0
114 : $P_{6695} = (37, 39, 0, 1)$ lies on line ℓ_1
115 : $P_{6704} = (46, 39, 0, 1)$ lies on line ℓ_2
116 : $P_{6732} = (10, 40, 0, 1)$ lies on line ℓ_0
117 : $P_{6759} = (37, 40, 0, 1)$ lies on line ℓ_1
118 : $P_{6768} = (46, 40, 0, 1)$ lies on line ℓ_2
119 : $P_{6796} = (10, 41, 0, 1)$ lies on line ℓ_0
120 : $P_{6823} = (37, 41, 0, 1)$ lies on line ℓ_1
121 : $P_{6832} = (46, 41, 0, 1)$ lies on line ℓ_2
122 : $P_{6860} = (10, 42, 0, 1)$ lies on line ℓ_0
123 : $P_{6887} = (37, 42, 0, 1)$ lies on line ℓ_1
124 : $P_{6896} = (46, 42, 0, 1)$ lies on line ℓ_2
125 : $P_{6924} = (10, 43, 0, 1)$ lies on line ℓ_0
126 : $P_{6951} = (37, 43, 0, 1)$ lies on line ℓ_1
127 : $P_{6960} = (46, 43, 0, 1)$ lies on line ℓ_2
128 : $P_{6988} = (10, 44, 0, 1)$ lies on line ℓ_0
129 : $P_{7015} = (37, 44, 0, 1)$ lies on line ℓ_1
130 : $P_{7024} = (46, 44, 0, 1)$ lies on line ℓ_2
131 : $P_{7052} = (10, 45, 0, 1)$ lies on line ℓ_0
132 : $P_{7079} = (37, 45, 0, 1)$ lies on line ℓ_1
133 : $P_{7088} = (46, 45, 0, 1)$ lies on line ℓ_2
134 : $P_{7116} = (10, 46, 0, 1)$ lies on line ℓ_0
135 : $P_{7143} = (37, 46, 0, 1)$ lies on line ℓ_1
136 : $P_{7180} = (10, 47, 0, 1)$ lies on line ℓ_0
137 : $P_{7207} = (37, 47, 0, 1)$ lies on line ℓ_1
138 : $P_{7244} = (10, 48, 0, 1)$ lies on line ℓ_0
139 : $P_{7271} = (37, 48, 0, 1)$ lies on line ℓ_1
140 : $P_{7280} = (46, 48, 0, 1)$ lies on line ℓ_2
141 : $P_{7308} = (10, 49, 0, 1)$ lies on line ℓ_0
142 : $P_{7335} = (37, 49, 0, 1)$ lies on line ℓ_1
143 : $P_{7344} = (46, 49, 0, 1)$ lies on line ℓ_2
144 : $P_{7372} = (10, 50, 0, 1)$ lies on line ℓ_0
145 : $P_{7399} = (37, 50, 0, 1)$ lies on line ℓ_1
146 : $P_{7408} = (46, 50, 0, 1)$ lies on line ℓ_2
147 : $P_{7436} = (10, 51, 0, 1)$ lies on line ℓ_0
148 : $P_{7463} = (37, 51, 0, 1)$ lies on line ℓ_1
149 : $P_{7472} = (46, 51, 0, 1)$ lies on line ℓ_2
150 : $P_{7500} = (10, 52, 0, 1)$ lies on line ℓ_0
151 : $P_{7527} = (37, 52, 0, 1)$ lies on line ℓ_1
152 : $P_{7536} = (46, 52, 0, 1)$ lies on line ℓ_2
153 : $P_{7564} = (10, 53, 0, 1)$ lies on line ℓ_0
154 : $P_{7591} = (37, 53, 0, 1)$ lies on line ℓ_1
155 : $P_{7600} = (46, 53, 0, 1)$ lies on line ℓ_2
156 : $P_{7628} = (10, 54, 0, 1)$ lies on line ℓ_0
157 : $P_{7655} = (37, 54, 0, 1)$ lies on line ℓ_1
158 : $P_{7664} = (46, 54, 0, 1)$ lies on line ℓ_2
159 : $P_{7692} = (10, 55, 0, 1)$ lies on line ℓ_0
160 : $P_{7719} = (37, 55, 0, 1)$ lies on line ℓ_1
161 : $P_{7728} = (46, 55, 0, 1)$ lies on line ℓ_2
162 : $P_{7756} = (10, 56, 0, 1)$ lies on line ℓ_0
163 : $P_{7783} = (37, 56, 0, 1)$ lies on line ℓ_1
164 : $P_{7792} = (46, 56, 0, 1)$ lies on line ℓ_2
165 : $P_{7820} = (10, 57, 0, 1)$ lies on line ℓ_0
166 : $P_{7847} = (37, 57, 0, 1)$ lies on line ℓ_1
167 : $P_{7856} = (46, 57, 0, 1)$ lies on line ℓ_2

168 : $P_{7884} = (10, 58, 0, 1)$ lies on line ℓ_0
169 : $P_{7911} = (37, 58, 0, 1)$ lies on line ℓ_1
170 : $P_{7920} = (46, 58, 0, 1)$ lies on line ℓ_2
171 : $P_{7948} = (10, 59, 0, 1)$ lies on line ℓ_0
172 : $P_{7975} = (37, 59, 0, 1)$ lies on line ℓ_1
173 : $P_{7984} = (46, 59, 0, 1)$ lies on line ℓ_2
174 : $P_{8012} = (10, 60, 0, 1)$ lies on line ℓ_0
175 : $P_{8039} = (37, 60, 0, 1)$ lies on line ℓ_1
176 : $P_{8048} = (46, 60, 0, 1)$ lies on line ℓ_2
177 : $P_{8076} = (10, 61, 0, 1)$ lies on line ℓ_0
178 : $P_{8103} = (37, 61, 0, 1)$ lies on line ℓ_1
179 : $P_{8112} = (46, 61, 0, 1)$ lies on line ℓ_2
180 : $P_{8140} = (10, 62, 0, 1)$ lies on line ℓ_0
181 : $P_{8167} = (37, 62, 0, 1)$ lies on line ℓ_1
182 : $P_{8176} = (46, 62, 0, 1)$ lies on line ℓ_2
183 : $P_{8204} = (10, 63, 0, 1)$ lies on line ℓ_0
184 : $P_{8231} = (37, 63, 0, 1)$ lies on line ℓ_1
185 : $P_{8240} = (46, 63, 0, 1)$ lies on line ℓ_2
186 : $P_{12363} = (10, 0, 2, 1)$ lies on line ℓ_3
187 : $P_{12390} = (37, 0, 2, 1)$ lies on line ℓ_4
188 : $P_{12399} = (46, 0, 2, 1)$ lies on line ℓ_5
189 : $P_{12571} = (26, 3, 2, 1)$ lies on line ℓ_{11}
190 : $P_{12580} = (35, 3, 2, 1)$ lies on line ℓ_{10}
191 : $P_{12601} = (56, 3, 2, 1)$ lies on line ℓ_9
192 : $P_{13003} = (10, 10, 2, 1)$ lies on line ℓ_6
193 : $P_{13979} = (26, 25, 2, 1)$ lies on line ℓ_{14}
194 : $P_{14436} = (35, 32, 2, 1)$ lies on line ℓ_{13}
195 : $P_{14758} = (37, 37, 2, 1)$ lies on line ℓ_7
196 : $P_{15343} = (46, 46, 2, 1)$ lies on line ℓ_8
197 : $P_{16185} = (56, 59, 2, 1)$ lies on line ℓ_{12}
198 : $P_{16459} = (10, 0, 3, 1)$ lies on line ℓ_3
199 : $P_{16486} = (37, 0, 3, 1)$ lies on line ℓ_4
200 : $P_{16495} = (46, 0, 3, 1)$ lies on line ℓ_5
201 : $P_{16584} = (7, 2, 3, 1)$ lies on line ℓ_{10}
202 : $P_{16628} = (51, 2, 3, 1)$ lies on line ℓ_9
203 : $P_{16630} = (53, 2, 3, 1)$ lies on line ℓ_{11}
204 : $P_{16776} = (7, 5, 3, 1)$ lies on line ℓ_{13}
205 : $P_{17099} = (10, 10, 3, 1)$ lies on line ℓ_6
206 : $P_{18854} = (37, 37, 3, 1)$ lies on line ℓ_7
207 : $P_{19439} = (46, 46, 3, 1)$ lies on line ℓ_8
208 : $P_{19636} = (51, 49, 3, 1)$ lies on line ℓ_{12}
209 : $P_{20022} = (53, 55, 3, 1)$ lies on line ℓ_{14}
210 : $P_{20555} = (10, 0, 4, 1)$ lies on line ℓ_3
211 : $P_{20582} = (37, 0, 4, 1)$ lies on line ℓ_4
212 : $P_{20591} = (46, 0, 4, 1)$ lies on line ℓ_5
213 : $P_{20867} = (2, 5, 4, 1)$ lies on line ℓ_9
214 : $P_{20922} = (57, 5, 4, 1)$ lies on line ℓ_{10}
215 : $P_{20923} = (58, 5, 4, 1)$ lies on line ℓ_{11}
216 : $P_{20995} = (2, 7, 4, 1)$ lies on line ℓ_{12}
217 : $P_{21195} = (10, 10, 4, 1)$ lies on line ℓ_6
218 : $P_{22950} = (37, 37, 4, 1)$ lies on line ℓ_7
219 : $P_{23535} = (46, 46, 4, 1)$ lies on line ℓ_8
220 : $P_{24442} = (57, 60, 4, 1)$ lies on line ℓ_{13}
221 : $P_{24635} = (58, 63, 4, 1)$ lies on line ℓ_{14}
222 : $P_{24651} = (10, 0, 5, 1)$ lies on line ℓ_3
223 : $P_{24678} = (37, 0, 5, 1)$ lies on line ℓ_4
224 : $P_{24687} = (46, 0, 5, 1)$ lies on line ℓ_5
225 : $P_{24906} = (9, 4, 5, 1)$ lies on line ℓ_9
226 : $P_{24918} = (21, 4, 5, 1)$ lies on line ℓ_{11}
227 : $P_{24926} = (29, 4, 5, 1)$ lies on line ℓ_{10}
228 : $P_{25291} = (10, 10, 5, 1)$ lies on line ℓ_6
229 : $P_{25482} = (9, 13, 5, 1)$ lies on line ℓ_{12}
230 : $P_{25750} = (21, 17, 5, 1)$ lies on line ℓ_{14}
231 : $P_{26270} = (29, 25, 5, 1)$ lies on line ℓ_{13}
232 : $P_{27046} = (37, 37, 5, 1)$ lies on line ℓ_7
233 : $P_{27631} = (46, 46, 5, 1)$ lies on line ℓ_8
234 : $P_{28747} = (10, 0, 6, 1)$ lies on line ℓ_3
235 : $P_{28774} = (37, 0, 6, 1)$ lies on line ℓ_4
236 : $P_{28783} = (46, 0, 6, 1)$ lies on line ℓ_5
237 : $P_{28870} = (5, 2, 6, 1)$ lies on line ℓ_{14}
238 : $P_{29190} = (5, 7, 6, 1)$ lies on line ℓ_{11}
239 : $P_{29201} = (16, 7, 6, 1)$ lies on line ℓ_{10}
240 : $P_{29205} = (20, 7, 6, 1)$ lies on line ℓ_9
241 : $P_{29387} = (10, 10, 6, 1)$ lies on line ℓ_6
242 : $P_{29973} = (20, 19, 6, 1)$ lies on line ℓ_{12}
243 : $P_{30225} = (16, 23, 6, 1)$ lies on line ℓ_{13}
244 : $P_{31142} = (37, 37, 6, 1)$ lies on line ℓ_7
245 : $P_{31727} = (46, 46, 6, 1)$ lies on line ℓ_8
246 : $P_{32843} = (10, 0, 7, 1)$ lies on line ℓ_3
247 : $P_{32870} = (37, 0, 7, 1)$ lies on line ℓ_4
248 : $P_{32879} = (46, 0, 7, 1)$ lies on line ℓ_5
249 : $P_{33248} = (31, 6, 7, 1)$ lies on line ℓ_9
250 : $P_{33259} = (42, 6, 7, 1)$ lies on line ℓ_{11}
251 : $P_{33269} = (52, 6, 7, 1)$ lies on line ℓ_{10}
252 : $P_{33483} = (10, 10, 7, 1)$ lies on line ℓ_6
253 : $P_{34464} = (31, 25, 7, 1)$ lies on line ℓ_{12}
254 : $P_{35238} = (37, 37, 7, 1)$ lies on line ℓ_7
255 : $P_{35691} = (42, 44, 7, 1)$ lies on line ℓ_{14}
256 : $P_{35823} = (46, 46, 7, 1)$ lies on line ℓ_8
257 : $P_{36085} = (52, 50, 7, 1)$ lies on line ℓ_{13}
258 : $P_{36939} = (10, 0, 8, 1)$ lies on line ℓ_3
259 : $P_{36966} = (37, 0, 8, 1)$ lies on line ℓ_4
260 : $P_{36975} = (46, 0, 8, 1)$ lies on line ℓ_5
261 : $P_{37198} = (13, 4, 8, 1)$ lies on line ℓ_{13}
262 : $P_{37518} = (13, 9, 8, 1)$ lies on line ℓ_{10}
263 : $P_{37528} = (23, 9, 8, 1)$ lies on line ℓ_9
264 : $P_{37532} = (27, 9, 8, 1)$ lies on line ℓ_{11}
265 : $P_{37579} = (10, 10, 8, 1)$ lies on line ℓ_6
266 : $P_{38108} = (27, 18, 8, 1)$ lies on line ℓ_{14}
267 : $P_{38872} = (23, 30, 8, 1)$ lies on line ℓ_{12}
268 : $P_{39334} = (37, 37, 8, 1)$ lies on line ℓ_7
269 : $P_{39919} = (46, 46, 8, 1)$ lies on line ℓ_8
270 : $P_{41035} = (10, 0, 9, 1)$ lies on line ℓ_3
271 : $P_{41062} = (37, 0, 9, 1)$ lies on line ℓ_4
272 : $P_{41071} = (46, 0, 9, 1)$ lies on line ℓ_5
273 : $P_{41565} = (28, 8, 9, 1)$ lies on line ℓ_9
274 : $P_{41578} = (41, 8, 9, 1)$ lies on line ℓ_{10}
275 : $P_{41589} = (52, 8, 9, 1)$ lies on line ℓ_{11}

276 : $P_{41675} = (10, 10, 9, 1)$ lies on line ℓ_6
277 : $P_{42333} = (28, 20, 9, 1)$ lies on line ℓ_{12}
278 : $P_{43178} = (41, 33, 9, 1)$ lies on line ℓ_{13}
279 : $P_{43430} = (37, 37, 9, 1)$ lies on line ℓ_7
280 : $P_{44015} = (46, 46, 9, 1)$ lies on line ℓ_8
281 : $P_{44917} = (52, 60, 9, 1)$ lies on line ℓ_{14}
282 : $P_{45131} = (10, 0, 10, 1)$ lies on line ℓ_3
283 : $P_{45158} = (37, 0, 10, 1)$ lies on line ℓ_4
284 : $P_{45167} = (46, 0, 10, 1)$ lies on line ℓ_5
285 : $P_{45762} = (1, 10, 10, 1)$ lies on line ℓ_{12}
286 : $P_{45771} = (10, 10, 10, 1)$ lies on line ℓ_6
287 : $P_{45826} = (1, 11, 10, 1)$ lies on line ℓ_9
288 : $P_{47526} = (37, 37, 10, 1)$ lies on line ℓ_7
289 : $P_{48111} = (46, 46, 10, 1)$ lies on line ℓ_8
290 : $P_{49254} = (37, 0, 11, 1)$ lies on line ℓ_4
291 : $P_{49263} = (46, 0, 11, 1)$ lies on line ℓ_5
292 : $P_{49292} = (11, 1, 11, 1)$ lies on line ℓ_{14}
293 : $P_{49868} = (11, 10, 11, 1)$ lies on line ℓ_{11}
294 : $P_{51622} = (37, 37, 11, 1)$ lies on line ℓ_7
295 : $P_{52207} = (46, 46, 11, 1)$ lies on line ℓ_8
296 : $P_{53323} = (10, 0, 12, 1)$ lies on line ℓ_3
297 : $P_{53350} = (37, 0, 12, 1)$ lies on line ℓ_4
298 : $P_{53359} = (46, 0, 12, 1)$ lies on line ℓ_5
299 : $P_{53893} = (4, 9, 12, 1)$ lies on line ℓ_{14}
300 : $P_{53963} = (10, 10, 12, 1)$ lies on line ℓ_6
301 : $P_{54149} = (4, 13, 12, 1)$ lies on line ℓ_{11}
302 : $P_{54204} = (59, 13, 12, 1)$ lies on line ℓ_9
303 : $P_{54207} = (62, 13, 12, 1)$ lies on line ℓ_{10}
304 : $P_{55718} = (37, 37, 12, 1)$ lies on line ℓ_7
305 : $P_{56303} = (46, 46, 12, 1)$ lies on line ℓ_8
306 : $P_{56639} = (62, 51, 12, 1)$ lies on line ℓ_{13}
307 : $P_{56828} = (59, 54, 12, 1)$ lies on line ℓ_{12}
308 : $P_{57419} = (10, 0, 13, 1)$ lies on line ℓ_3
309 : $P_{57446} = (37, 0, 13, 1)$ lies on line ℓ_4
310 : $P_{57455} = (46, 0, 13, 1)$ lies on line ℓ_5
311 : $P_{58059} = (10, 10, 13, 1)$ lies on line ℓ_6
312 : $P_{58203} = (26, 12, 13, 1)$ lies on line ℓ_{10}
313 : $P_{58220} = (43, 12, 13, 1)$ lies on line ℓ_{11}
314 : $P_{58225} = (48, 12, 13, 1)$ lies on line ℓ_9
315 : $P_{58843} = (26, 22, 13, 1)$ lies on line ℓ_{13}
316 : $P_{59814} = (37, 37, 13, 1)$ lies on line ℓ_7
317 : $P_{59948} = (43, 39, 13, 1)$ lies on line ℓ_{14}
318 : $P_{60399} = (46, 46, 13, 1)$ lies on line ℓ_8
319 : $P_{61297} = (48, 60, 13, 1)$ lies on line ℓ_{12}
320 : $P_{61515} = (10, 0, 14, 1)$ lies on line ℓ_3
321 : $P_{61542} = (37, 0, 14, 1)$ lies on line ℓ_4
322 : $P_{61551} = (46, 0, 14, 1)$ lies on line ℓ_5
323 : $P_{62155} = (10, 10, 14, 1)$ lies on line ℓ_6
324 : $P_{62488} = (23, 15, 14, 1)$ lies on line ℓ_{10}
325 : $P_{62510} = (45, 15, 14, 1)$ lies on line ℓ_9
326 : $P_{62524} = (59, 15, 14, 1)$ lies on line ℓ_{11}
327 : $P_{63064} = (23, 24, 14, 1)$ lies on line ℓ_{13}
328 : $P_{63726} = (45, 34, 14, 1)$ lies on line ℓ_{12}
329 : $P_{63910} = (37, 37, 14, 1)$ lies on line ℓ_7
330 : $P_{64495} = (46, 46, 14, 1)$ lies on line ℓ_8
331 : $P_{64892} = (59, 52, 14, 1)$ lies on line ℓ_{14}
332 : $P_{65611} = (10, 0, 15, 1)$ lies on line ℓ_3
333 : $P_{65638} = (37, 0, 15, 1)$ lies on line ℓ_4
334 : $P_{65647} = (46, 0, 15, 1)$ lies on line ℓ_5
335 : $P_{66251} = (10, 10, 15, 1)$ lies on line ℓ_6
336 : $P_{66517} = (20, 14, 15, 1)$ lies on line ℓ_{11}
337 : $P_{66535} = (38, 14, 15, 1)$ lies on line ℓ_9
338 : $P_{66548} = (51, 14, 15, 1)$ lies on line ℓ_{10}
339 : $P_{67285} = (20, 26, 15, 1)$ lies on line ℓ_{14}
340 : $P_{68006} = (37, 37, 15, 1)$ lies on line ℓ_7
341 : $P_{68199} = (38, 40, 15, 1)$ lies on line ℓ_{12}
342 : $P_{68591} = (46, 46, 15, 1)$ lies on line ℓ_8
343 : $P_{69556} = (51, 61, 15, 1)$ lies on line ℓ_{13}
344 : $P_{69707} = (10, 0, 16, 1)$ lies on line ℓ_3
345 : $P_{69734} = (37, 0, 16, 1)$ lies on line ℓ_4
346 : $P_{69743} = (46, 0, 16, 1)$ lies on line ℓ_5
347 : $P_{70347} = (10, 10, 16, 1)$ lies on line ℓ_6
348 : $P_{70789} = (4, 17, 16, 1)$ lies on line ℓ_{10}
349 : $P_{70841} = (56, 17, 16, 1)$ lies on line ℓ_{11}
350 : $P_{70846} = (61, 17, 16, 1)$ lies on line ℓ_9
351 : $P_{71045} = (4, 21, 16, 1)$ lies on line ℓ_{13}
352 : $P_{72102} = (37, 37, 16, 1)$ lies on line ℓ_7
353 : $P_{72377} = (56, 41, 16, 1)$ lies on line ℓ_{14}
354 : $P_{72574} = (61, 44, 16, 1)$ lies on line ℓ_{12}
355 : $P_{72687} = (46, 46, 16, 1)$ lies on line ℓ_8
356 : $P_{73803} = (10, 0, 17, 1)$ lies on line ℓ_3
357 : $P_{73830} = (37, 0, 17, 1)$ lies on line ℓ_4
358 : $P_{73839} = (46, 0, 17, 1)$ lies on line ℓ_5
359 : $P_{74264} = (23, 7, 17, 1)$ lies on line ℓ_{14}
360 : $P_{74443} = (10, 10, 17, 1)$ lies on line ℓ_6
361 : $P_{74840} = (23, 16, 17, 1)$ lies on line ℓ_{11}
362 : $P_{74849} = (32, 16, 17, 1)$ lies on line ℓ_{10}
363 : $P_{74871} = (54, 16, 17, 1)$ lies on line ℓ_9
364 : $P_{76198} = (37, 37, 17, 1)$ lies on line ℓ_7
365 : $P_{76279} = (54, 38, 17, 1)$ lies on line ℓ_{12}
366 : $P_{76783} = (46, 46, 17, 1)$ lies on line ℓ_8
367 : $P_{76897} = (32, 48, 17, 1)$ lies on line ℓ_{13}
368 : $P_{77899} = (10, 0, 18, 1)$ lies on line ℓ_3
369 : $P_{77926} = (37, 0, 18, 1)$ lies on line ℓ_4
370 : $P_{77935} = (46, 0, 18, 1)$ lies on line ℓ_5
371 : $P_{78539} = (10, 10, 18, 1)$ lies on line ℓ_6
372 : $P_{79112} = (7, 19, 18, 1)$ lies on line ℓ_{11}
373 : $P_{79148} = (43, 19, 18, 1)$ lies on line ℓ_9
374 : $P_{79150} = (45, 19, 18, 1)$ lies on line ℓ_{10}
375 : $P_{79176} = (7, 20, 18, 1)$ lies on line ℓ_{14}
376 : $P_{80294} = (37, 37, 18, 1)$ lies on line ℓ_7
377 : $P_{80879} = (46, 46, 18, 1)$ lies on line ℓ_8
378 : $P_{81516} = (43, 56, 18, 1)$ lies on line ℓ_{12}
379 : $P_{81902} = (45, 62, 18, 1)$ lies on line ℓ_{13}
380 : $P_{81995} = (10, 0, 19, 1)$ lies on line ℓ_3
381 : $P_{82022} = (37, 0, 19, 1)$ lies on line ℓ_4
382 : $P_{82031} = (46, 0, 19, 1)$ lies on line ℓ_5
383 : $P_{82635} = (10, 10, 19, 1)$ lies on line ℓ_6

384 : $P_{83146} = (9, 18, 19, 1)$ lies on line ℓ_{10}
385 : $P_{83169} = (32, 18, 19, 1)$ lies on line ℓ_{9}
386 : $P_{83177} = (40, 18, 19, 1)$ lies on line ℓ_{11}
387 : $P_{83722} = (9, 27, 19, 1)$ lies on line ℓ_{13}
388 : $P_{84390} = (37, 37, 19, 1)$ lies on line ℓ_{7}
389 : $P_{84975} = (46, 46, 19, 1)$ lies on line ℓ_{8}
390 : $P_{85217} = (32, 50, 19, 1)$ lies on line ℓ_{12}
391 : $P_{85737} = (40, 58, 19, 1)$ lies on line ℓ_{14}
392 : $P_{86091} = (10, 0, 20, 1)$ lies on line ℓ_{3}
393 : $P_{86118} = (37, 0, 20, 1)$ lies on line ℓ_{4}
394 : $P_{86127} = (46, 0, 20, 1)$ lies on line ℓ_{5}
395 : $P_{86354} = (17, 4, 20, 1)$ lies on line ℓ_{12}
396 : $P_{86731} = (10, 10, 20, 1)$ lies on line ℓ_{6}
397 : $P_{87442} = (17, 21, 20, 1)$ lies on line ℓ_{9}
398 : $P_{87464} = (39, 21, 20, 1)$ lies on line ℓ_{11}
399 : $P_{87480} = (55, 21, 20, 1)$ lies on line ℓ_{10}
400 : $P_{88312} = (55, 34, 20, 1)$ lies on line ℓ_{13}
401 : $P_{88486} = (37, 37, 20, 1)$ lies on line ℓ_{7}
402 : $P_{89071} = (46, 46, 20, 1)$ lies on line ℓ_{8}
403 : $P_{89320} = (39, 50, 20, 1)$ lies on line ℓ_{14}
404 : $P_{90187} = (10, 0, 21, 1)$ lies on line ℓ_{3}
405 : $P_{90214} = (37, 0, 21, 1)$ lies on line ℓ_{4}
406 : $P_{90223} = (46, 0, 21, 1)$ lies on line ℓ_{5}
407 : $P_{90644} = (19, 7, 21, 1)$ lies on line ℓ_{13}
408 : $P_{90827} = (10, 10, 21, 1)$ lies on line ℓ_{6}
409 : $P_{91099} = (26, 14, 21, 1)$ lies on line ℓ_{12}
410 : $P_{91465} = (8, 20, 21, 1)$ lies on line ℓ_{11}
411 : $P_{91476} = (19, 20, 21, 1)$ lies on line ℓ_{10}
412 : $P_{91483} = (26, 20, 21, 1)$ lies on line ℓ_{9}
413 : $P_{91977} = (8, 28, 21, 1)$ lies on line ℓ_{14}
414 : $P_{92582} = (37, 37, 21, 1)$ lies on line ℓ_{7}
415 : $P_{93167} = (46, 46, 21, 1)$ lies on line ℓ_{8}
416 : $P_{94283} = (10, 0, 22, 1)$ lies on line ℓ_{3}
417 : $P_{94310} = (37, 0, 22, 1)$ lies on line ℓ_{4}
418 : $P_{94319} = (46, 0, 22, 1)$ lies on line ℓ_{5}
419 : $P_{94879} = (30, 9, 22, 1)$ lies on line ℓ_{13}
420 : $P_{94923} = (10, 10, 22, 1)$ lies on line ℓ_{6}
421 : $P_{95257} = (24, 15, 22, 1)$ lies on line ℓ_{14}
422 : $P_{95304} = (7, 16, 22, 1)$ lies on line ℓ_{12}
423 : $P_{95752} = (7, 23, 22, 1)$ lies on line ℓ_{9}
424 : $P_{95769} = (24, 23, 22, 1)$ lies on line ℓ_{11}
425 : $P_{95775} = (30, 23, 22, 1)$ lies on line ℓ_{10}
426 : $P_{96678} = (37, 37, 22, 1)$ lies on line ℓ_{7}
427 : $P_{97263} = (46, 46, 22, 1)$ lies on line ℓ_{8}
428 : $P_{98379} = (10, 0, 23, 1)$ lies on line ℓ_{3}
429 : $P_{98406} = (37, 0, 23, 1)$ lies on line ℓ_{4}
430 : $P_{98415} = (46, 0, 23, 1)$ lies on line ℓ_{5}
431 : $P_{99019} = (10, 10, 23, 1)$ lies on line ℓ_{6}
432 : $P_{99789} = (12, 22, 23, 1)$ lies on line ℓ_{9}
433 : $P_{99832} = (55, 22, 23, 1)$ lies on line ℓ_{11}
434 : $P_{99835} = (58, 22, 23, 1)$ lies on line ℓ_{10}
435 : $P_{100045} = (12, 26, 23, 1)$ lies on line ℓ_{12}
436 : $P_{100536} = (55, 33, 23, 1)$ lies on line ℓ_{14}
437 : $P_{100774} = (37, 37, 23, 1)$ lies on line ℓ_{7}
438 : $P_{101243} = (58, 44, 23, 1)$ lies on line ℓ_{13}
439 : $P_{101359} = (46, 46, 23, 1)$ lies on line ℓ_{8}
440 : $P_{102475} = (10, 0, 24, 1)$ lies on line ℓ_{3}
441 : $P_{102502} = (37, 0, 24, 1)$ lies on line ℓ_{4}
442 : $P_{102511} = (46, 0, 24, 1)$ lies on line ℓ_{5}
443 : $P_{103115} = (10, 10, 24, 1)$ lies on line ℓ_{6}
444 : $P_{104068} = (3, 25, 24, 1)$ lies on line ℓ_{10}
445 : $P_{104069} = (4, 25, 24, 1)$ lies on line ℓ_{9}
446 : $P_{104071} = (6, 25, 24, 1)$ lies on line ℓ_{11}
447 : $P_{104132} = (3, 26, 24, 1)$ lies on line ℓ_{13}
448 : $P_{104325} = (4, 29, 24, 1)$ lies on line ℓ_{12}
449 : $P_{104455} = (6, 31, 24, 1)$ lies on line ℓ_{14}
450 : $P_{104870} = (37, 37, 24, 1)$ lies on line ℓ_{7}
451 : $P_{105455} = (46, 46, 24, 1)$ lies on line ℓ_{8}
452 : $P_{106571} = (10, 0, 25, 1)$ lies on line ℓ_{3}
453 : $P_{106598} = (37, 0, 25, 1)$ lies on line ℓ_{4}
454 : $P_{106607} = (46, 0, 25, 1)$ lies on line ℓ_{5}
455 : $P_{107211} = (10, 10, 25, 1)$ lies on line ℓ_{6}
456 : $P_{108048} = (15, 23, 25, 1)$ lies on line ℓ_{12}
457 : $P_{108112} = (15, 24, 25, 1)$ lies on line ℓ_{9}
458 : $P_{108136} = (39, 24, 25, 1)$ lies on line ℓ_{10}
459 : $P_{108138} = (41, 24, 25, 1)$ lies on line ℓ_{11}
460 : $P_{108966} = (37, 37, 25, 1)$ lies on line ℓ_{7}
461 : $P_{109551} = (46, 46, 25, 1)$ lies on line ℓ_{8}
462 : $P_{109738} = (41, 49, 25, 1)$ lies on line ℓ_{14}
463 : $P_{110632} = (39, 63, 25, 1)$ lies on line ℓ_{13}
464 : $P_{110667} = (10, 0, 26, 1)$ lies on line ℓ_{3}
465 : $P_{110694} = (37, 0, 26, 1)$ lies on line ℓ_{4}
466 : $P_{110703} = (46, 0, 26, 1)$ lies on line ℓ_{5}
467 : $P_{111251} = (18, 9, 26, 1)$ lies on line ℓ_{12}
468 : $P_{111307} = (10, 10, 26, 1)$ lies on line ℓ_{6}
469 : $P_{112403} = (18, 27, 26, 1)$ lies on line ℓ_{9}
470 : $P_{112427} = (42, 27, 26, 1)$ lies on line ℓ_{10}
471 : $P_{112442} = (57, 27, 26, 1)$ lies on line ℓ_{11}
472 : $P_{112890} = (57, 34, 26, 1)$ lies on line ℓ_{14}
473 : $P_{113062} = (37, 37, 26, 1)$ lies on line ℓ_{7}
474 : $P_{113647} = (46, 46, 26, 1)$ lies on line ℓ_{8}
475 : $P_{113835} = (42, 49, 26, 1)$ lies on line ℓ_{13}
476 : $P_{114763} = (10, 0, 27, 1)$ lies on line ℓ_{3}
477 : $P_{114790} = (37, 0, 27, 1)$ lies on line ℓ_{4}
478 : $P_{114799} = (46, 0, 27, 1)$ lies on line ℓ_{5}
479 : $P_{114970} = (25, 3, 27, 1)$ lies on line ℓ_{12}
480 : $P_{115403} = (10, 10, 27, 1)$ lies on line ℓ_{6}
481 : $P_{115543} = (22, 12, 27, 1)$ lies on line ℓ_{14}
482 : $P_{116047} = (14, 20, 27, 1)$ lies on line ℓ_{13}
483 : $P_{116431} = (14, 26, 27, 1)$ lies on line ℓ_{10}
484 : $P_{116439} = (22, 26, 27, 1)$ lies on line ℓ_{11}
485 : $P_{116442} = (25, 26, 27, 1)$ lies on line ℓ_{9}
486 : $P_{117158} = (37, 37, 27, 1)$ lies on line ℓ_{7}
487 : $P_{117743} = (46, 46, 27, 1)$ lies on line ℓ_{8}
488 : $P_{118859} = (10, 0, 28, 1)$ lies on line ℓ_{3}
489 : $P_{118886} = (37, 0, 28, 1)$ lies on line ℓ_{4}
490 : $P_{118895} = (46, 0, 28, 1)$ lies on line ℓ_{5}
491 : $P_{119130} = (25, 4, 28, 1)$ lies on line ℓ_{14}

492 : $P_{119499} = (10, 10, 28, 1)$ lies on line ℓ_6
493 : $P_{120730} = (25, 29, 28, 1)$ lies on line ℓ_{11}
494 : $P_{120745} = (40, 29, 28, 1)$ lies on line ℓ_9
495 : $P_{120753} = (48, 29, 28, 1)$ lies on line ℓ_{10}
496 : $P_{121254} = (37, 37, 28, 1)$ lies on line ℓ_7
497 : $P_{121777} = (48, 45, 28, 1)$ lies on line ℓ_{13}
498 : $P_{121839} = (46, 46, 28, 1)$ lies on line ℓ_8
499 : $P_{122281} = (40, 53, 28, 1)$ lies on line ℓ_{12}
500 : $P_{122955} = (10, 0, 29, 1)$ lies on line ℓ_3
501 : $P_{122982} = (37, 0, 29, 1)$ lies on line ℓ_4
502 : $P_{122991} = (46, 0, 29, 1)$ lies on line ℓ_5
503 : $P_{123477} = (20, 8, 29, 1)$ lies on line ℓ_{13}
504 : $P_{123595} = (10, 10, 29, 1)$ lies on line ℓ_6
505 : $P_{124757} = (20, 28, 29, 1)$ lies on line ℓ_{10}
506 : $P_{124772} = (35, 28, 29, 1)$ lies on line ℓ_9
507 : $P_{124791} = (54, 28, 29, 1)$ lies on line ℓ_{11}
508 : $P_{125350} = (37, 37, 29, 1)$ lies on line ℓ_7
509 : $P_{125687} = (54, 42, 29, 1)$ lies on line ℓ_{14}
510 : $P_{125935} = (46, 46, 29, 1)$ lies on line ℓ_8
511 : $P_{127012} = (35, 63, 29, 1)$ lies on line ℓ_{12}
512 : $P_{127051} = (10, 0, 30, 1)$ lies on line ℓ_3
513 : $P_{127078} = (37, 0, 30, 1)$ lies on line ℓ_4
514 : $P_{127087} = (46, 0, 30, 1)$ lies on line ℓ_5
515 : $P_{127450} = (25, 6, 30, 1)$ lies on line ℓ_{13}
516 : $P_{127691} = (10, 10, 30, 1)$ lies on line ℓ_6
517 : $P_{129050} = (25, 31, 30, 1)$ lies on line ℓ_{10}
518 : $P_{129063} = (38, 31, 30, 1)$ lies on line ℓ_{11}
519 : $P_{129087} = (62, 31, 30, 1)$ lies on line ℓ_9
520 : $P_{129215} = (62, 33, 30, 1)$ lies on line ℓ_{12}
521 : $P_{129446} = (37, 37, 30, 1)$ lies on line ℓ_7
522 : $P_{130031} = (46, 46, 30, 1)$ lies on line ℓ_8
523 : $P_{130727} = (38, 57, 30, 1)$ lies on line ℓ_{14}
524 : $P_{131147} = (10, 0, 31, 1)$ lies on line ℓ_3
525 : $P_{131174} = (37, 0, 31, 1)$ lies on line ℓ_4
526 : $P_{131183} = (46, 0, 31, 1)$ lies on line ℓ_5
527 : $P_{131787} = (10, 10, 31, 1)$ lies on line ℓ_6
528 : $P_{132618} = (9, 23, 31, 1)$ lies on line ℓ_{14}
529 : $P_{133066} = (9, 30, 31, 1)$ lies on line ℓ_{11}
530 : $P_{133110} = (53, 30, 31, 1)$ lies on line ℓ_9
531 : $P_{133118} = (61, 30, 31, 1)$ lies on line ℓ_{10}
532 : $P_{133438} = (61, 35, 31, 1)$ lies on line ℓ_{13}
533 : $P_{133542} = (37, 37, 31, 1)$ lies on line ℓ_7
534 : $P_{133942} = (53, 43, 31, 1)$ lies on line ℓ_{12}
535 : $P_{134127} = (46, 46, 31, 1)$ lies on line ℓ_8
536 : $P_{135243} = (10, 0, 32, 1)$ lies on line ℓ_3
537 : $P_{135270} = (37, 0, 32, 1)$ lies on line ℓ_4
538 : $P_{135279} = (46, 0, 32, 1)$ lies on line ℓ_5
539 : $P_{135883} = (10, 10, 32, 1)$ lies on line ℓ_6
540 : $P_{137353} = (8, 33, 32, 1)$ lies on line ℓ_9
541 : $P_{137367} = (22, 33, 32, 1)$ lies on line ℓ_{10}
542 : $P_{137376} = (31, 33, 32, 1)$ lies on line ℓ_{11}
543 : $P_{137638} = (37, 37, 32, 1)$ lies on line ℓ_7
544 : $P_{137865} = (8, 41, 32, 1)$ lies on line ℓ_{12}
545 : $P_{138223} = (46, 46, 32, 1)$ lies on line ℓ_8
546 : $P_{138775} = (22, 55, 32, 1)$ lies on line ℓ_{13}
547 : $P_{139232} = (31, 62, 32, 1)$ lies on line ℓ_{14}
548 : $P_{139339} = (10, 0, 33, 1)$ lies on line ℓ_3
549 : $P_{139366} = (37, 0, 33, 1)$ lies on line ℓ_4
550 : $P_{139375} = (46, 0, 33, 1)$ lies on line ℓ_5
551 : $P_{139979} = (10, 10, 33, 1)$ lies on line ℓ_6
552 : $P_{140401} = (48, 16, 33, 1)$ lies on line ℓ_{14}
553 : $P_{140531} = (50, 18, 33, 1)$ lies on line ℓ_{13}
554 : $P_{141380} = (3, 32, 33, 1)$ lies on line ℓ_9
555 : $P_{141425} = (48, 32, 33, 1)$ lies on line ℓ_{11}
556 : $P_{141427} = (50, 32, 33, 1)$ lies on line ℓ_{10}
557 : $P_{141572} = (3, 35, 33, 1)$ lies on line ℓ_{12}
558 : $P_{141734} = (37, 37, 33, 1)$ lies on line ℓ_7
559 : $P_{142319} = (46, 46, 33, 1)$ lies on line ℓ_8
560 : $P_{143435} = (10, 0, 34, 1)$ lies on line ℓ_3
561 : $P_{143462} = (37, 0, 34, 1)$ lies on line ℓ_4
562 : $P_{143471} = (46, 0, 34, 1)$ lies on line ℓ_5
563 : $P_{143649} = (32, 3, 34, 1)$ lies on line ℓ_{14}
564 : $P_{144075} = (10, 10, 34, 1)$ lies on line ℓ_6
565 : $P_{145280} = (63, 28, 34, 1)$ lies on line ℓ_{13}
566 : $P_{145695} = (30, 35, 34, 1)$ lies on line ℓ_9
567 : $P_{145697} = (32, 35, 34, 1)$ lies on line ℓ_{11}
568 : $P_{145728} = (63, 35, 34, 1)$ lies on line ℓ_{10}
569 : $P_{145830} = (37, 37, 34, 1)$ lies on line ℓ_7
570 : $P_{146415} = (46, 46, 34, 1)$ lies on line ℓ_8
571 : $P_{147359} = (30, 61, 34, 1)$ lies on line ℓ_{12}
572 : $P_{147531} = (10, 0, 35, 1)$ lies on line ℓ_3
573 : $P_{147558} = (37, 0, 35, 1)$ lies on line ℓ_4
574 : $P_{147567} = (46, 0, 35, 1)$ lies on line ℓ_5
575 : $P_{148171} = (10, 10, 35, 1)$ lies on line ℓ_6
576 : $P_{149712} = (15, 34, 35, 1)$ lies on line ℓ_{11}
577 : $P_{149718} = (21, 34, 35, 1)$ lies on line ℓ_9
578 : $P_{149724} = (27, 34, 35, 1)$ lies on line ℓ_{10}
579 : $P_{149926} = (37, 37, 35, 1)$ lies on line ℓ_7
580 : $P_{150416} = (15, 45, 35, 1)$ lies on line ℓ_{14}
581 : $P_{150511} = (46, 46, 35, 1)$ lies on line ℓ_8
582 : $P_{151062} = (21, 55, 35, 1)$ lies on line ℓ_{12}
583 : $P_{151196} = (27, 57, 35, 1)$ lies on line ℓ_{13}
584 : $P_{151627} = (10, 0, 36, 1)$ lies on line ℓ_3
585 : $P_{151663} = (46, 0, 36, 1)$ lies on line ℓ_5
586 : $P_{151717} = (36, 1, 36, 1)$ lies on line ℓ_{12}
587 : $P_{152267} = (10, 10, 36, 1)$ lies on line ℓ_6
588 : $P_{154021} = (36, 37, 36, 1)$ lies on line ℓ_9
589 : $P_{154607} = (46, 46, 36, 1)$ lies on line ℓ_8
590 : $P_{155723} = (10, 0, 37, 1)$ lies on line ℓ_3
591 : $P_{155750} = (37, 0, 37, 1)$ lies on line ℓ_4
592 : $P_{155759} = (46, 0, 37, 1)$ lies on line ℓ_5
593 : $P_{156363} = (10, 10, 37, 1)$ lies on line ℓ_6
594 : $P_{158018} = (1, 36, 37, 1)$ lies on line ℓ_{10}
595 : $P_{158082} = (1, 37, 37, 1)$ lies on line ℓ_{13}
596 : $P_{158118} = (37, 37, 37, 1)$ lies on line ℓ_7
597 : $P_{158703} = (46, 46, 37, 1)$ lies on line ℓ_8
598 : $P_{159819} = (10, 0, 38, 1)$ lies on line ℓ_3
599 : $P_{159846} = (37, 0, 38, 1)$ lies on line ℓ_4

600 : $P_{159855} = (46, 0, 38, 1)$ lies on line ℓ_5
601 : $P_{160459} = (10, 10, 38, 1)$ lies on line ℓ_6
602 : $P_{161203} = (50, 21, 38, 1)$ lies on line ℓ_{12}
603 : $P_{161408} = (63, 24, 38, 1)$ lies on line ℓ_{14}
604 : $P_{162214} = (37, 37, 38, 1)$ lies on line ℓ_7
605 : $P_{162317} = (12, 39, 38, 1)$ lies on line ℓ_{10}
606 : $P_{162355} = (50, 39, 38, 1)$ lies on line ℓ_9
607 : $P_{162368} = (63, 39, 38, 1)$ lies on line ℓ_{11}
608 : $P_{162573} = (12, 43, 38, 1)$ lies on line ℓ_{13}
609 : $P_{162799} = (46, 46, 38, 1)$ lies on line ℓ_8
610 : $P_{163915} = (10, 0, 39, 1)$ lies on line ℓ_3
611 : $P_{163942} = (37, 0, 39, 1)$ lies on line ℓ_4
612 : $P_{163951} = (46, 0, 39, 1)$ lies on line ℓ_5
613 : $P_{164555} = (10, 10, 39, 1)$ lies on line ℓ_6
614 : $P_{164841} = (40, 14, 39, 1)$ lies on line ℓ_{13}
615 : $P_{165946} = (57, 31, 39, 1)$ lies on line ℓ_{12}
616 : $P_{166310} = (37, 37, 39, 1)$ lies on line ℓ_7
617 : $P_{166353} = (16, 38, 39, 1)$ lies on line ℓ_{11}
618 : $P_{166377} = (40, 38, 39, 1)$ lies on line ℓ_{10}
619 : $P_{166394} = (57, 38, 39, 1)$ lies on line ℓ_9
620 : $P_{166895} = (46, 46, 39, 1)$ lies on line ℓ_8
621 : $P_{167377} = (16, 54, 39, 1)$ lies on line ℓ_{14}
622 : $P_{168011} = (10, 0, 40, 1)$ lies on line ℓ_3
623 : $P_{168038} = (37, 0, 40, 1)$ lies on line ℓ_4
624 : $P_{168047} = (46, 0, 40, 1)$ lies on line ℓ_5
625 : $P_{168546} = (33, 8, 40, 1)$ lies on line ℓ_{14}
626 : $P_{168651} = (10, 10, 40, 1)$ lies on line ℓ_6
627 : $P_{169586} = (49, 24, 40, 1)$ lies on line ℓ_{12}
628 : $P_{170406} = (37, 37, 40, 1)$ lies on line ℓ_7
629 : $P_{170642} = (17, 41, 40, 1)$ lies on line ℓ_{10}
630 : $P_{170658} = (33, 41, 40, 1)$ lies on line ℓ_{11}
631 : $P_{170674} = (49, 41, 40, 1)$ lies on line ℓ_9
632 : $P_{170991} = (46, 46, 40, 1)$ lies on line ℓ_8
633 : $P_{171602} = (17, 56, 40, 1)$ lies on line ℓ_{13}
634 : $P_{172107} = (10, 0, 41, 1)$ lies on line ℓ_3
635 : $P_{172134} = (37, 0, 41, 1)$ lies on line ℓ_4
636 : $P_{172143} = (46, 0, 41, 1)$ lies on line ℓ_5
637 : $P_{172747} = (10, 10, 41, 1)$ lies on line ℓ_6
638 : $P_{173307} = (58, 18, 41, 1)$ lies on line ℓ_{12}
639 : $P_{174006} = (53, 29, 41, 1)$ lies on line ℓ_{13}
640 : $P_{174502} = (37, 37, 41, 1)$ lies on line ℓ_7
641 : $P_{174543} = (14, 38, 41, 1)$ lies on line ℓ_{14}
642 : $P_{174671} = (14, 40, 41, 1)$ lies on line ℓ_{11}
643 : $P_{174710} = (53, 40, 41, 1)$ lies on line ℓ_{10}
644 : $P_{174715} = (58, 40, 41, 1)$ lies on line ℓ_9
645 : $P_{175087} = (46, 46, 41, 1)$ lies on line ℓ_8
646 : $P_{176203} = (10, 0, 42, 1)$ lies on line ℓ_3
647 : $P_{176230} = (37, 0, 42, 1)$ lies on line ℓ_4
648 : $P_{176239} = (46, 0, 42, 1)$ lies on line ℓ_5
649 : $P_{176843} = (10, 10, 42, 1)$ lies on line ℓ_6
650 : $P_{177000} = (39, 12, 42, 1)$ lies on line ℓ_{12}
651 : $P_{177465} = (56, 19, 42, 1)$ lies on line ℓ_{13}
652 : $P_{178598} = (37, 37, 42, 1)$ lies on line ℓ_7
653 : $P_{178975} = (30, 43, 42, 1)$ lies on line ℓ_{11}
654 : $P_{178984} = (39, 43, 42, 1)$ lies on line ℓ_9
655 : $P_{179001} = (56, 43, 42, 1)$ lies on line ℓ_{10}
656 : $P_{179183} = (46, 46, 42, 1)$ lies on line ℓ_8
657 : $P_{179615} = (30, 53, 42, 1)$ lies on line ℓ_{14}
658 : $P_{180299} = (10, 0, 43, 1)$ lies on line ℓ_3
659 : $P_{180326} = (37, 0, 43, 1)$ lies on line ℓ_4
660 : $P_{180335} = (46, 0, 43, 1)$ lies on line ℓ_5
661 : $P_{180717} = (44, 6, 43, 1)$ lies on line ℓ_{12}
662 : $P_{180939} = (10, 10, 43, 1)$ lies on line ℓ_6
663 : $P_{182066} = (49, 27, 43, 1)$ lies on line ℓ_{14}
664 : $P_{182694} = (37, 37, 43, 1)$ lies on line ℓ_7
665 : $P_{183005} = (28, 42, 43, 1)$ lies on line ℓ_{10}
666 : $P_{183021} = (44, 42, 43, 1)$ lies on line ℓ_9
667 : $P_{183026} = (49, 42, 43, 1)$ lies on line ℓ_{11}
668 : $P_{183279} = (46, 46, 43, 1)$ lies on line ℓ_8
669 : $P_{183773} = (28, 54, 43, 1)$ lies on line ℓ_{13}
670 : $P_{184395} = (10, 0, 44, 1)$ lies on line ℓ_3
671 : $P_{184422} = (37, 0, 44, 1)$ lies on line ℓ_4
672 : $P_{184431} = (46, 0, 44, 1)$ lies on line ℓ_5
673 : $P_{185035} = (10, 10, 44, 1)$ lies on line ℓ_6
674 : $P_{185379} = (34, 15, 44, 1)$ lies on line ℓ_{13}
675 : $P_{185663} = (62, 19, 44, 1)$ lies on line ℓ_{14}
676 : $P_{186790} = (37, 37, 44, 1)$ lies on line ℓ_7
677 : $P_{187294} = (29, 45, 44, 1)$ lies on line ℓ_9
678 : $P_{187299} = (34, 45, 44, 1)$ lies on line ℓ_{10}
679 : $P_{187327} = (62, 45, 44, 1)$ lies on line ℓ_{11}
680 : $P_{187375} = (46, 46, 44, 1)$ lies on line ℓ_8
681 : $P_{187486} = (29, 48, 44, 1)$ lies on line ℓ_{12}
682 : $P_{188491} = (10, 0, 45, 1)$ lies on line ℓ_3
683 : $P_{188518} = (37, 0, 45, 1)$ lies on line ℓ_4
684 : $P_{188527} = (46, 0, 45, 1)$ lies on line ℓ_5
685 : $P_{189131} = (10, 10, 45, 1)$ lies on line ℓ_6
686 : $P_{190886} = (37, 37, 45, 1)$ lies on line ℓ_7
687 : $P_{191175} = (6, 42, 45, 1)$ lies on line ℓ_{13}
688 : $P_{191303} = (6, 44, 45, 1)$ lies on line ℓ_{10}
689 : $P_{191314} = (17, 44, 45, 1)$ lies on line ℓ_{11}
690 : $P_{191319} = (22, 44, 45, 1)$ lies on line ℓ_9
691 : $P_{191471} = (46, 46, 45, 1)$ lies on line ℓ_8
692 : $P_{192215} = (22, 58, 45, 1)$ lies on line ℓ_{12}
693 : $P_{192402} = (17, 61, 45, 1)$ lies on line ℓ_{14}
694 : $P_{192587} = (10, 0, 46, 1)$ lies on line ℓ_3
695 : $P_{192614} = (37, 0, 46, 1)$ lies on line ℓ_4
696 : $P_{192623} = (46, 0, 46, 1)$ lies on line ℓ_5
697 : $P_{193227} = (10, 10, 46, 1)$ lies on line ℓ_6
698 : $P_{194982} = (37, 37, 46, 1)$ lies on line ℓ_7
699 : $P_{195522} = (1, 46, 46, 1)$ lies on line ℓ_{14}
700 : $P_{195567} = (46, 46, 46, 1)$ lies on line ℓ_8
701 : $P_{195586} = (1, 47, 46, 1)$ lies on line ℓ_{11}
702 : $P_{196683} = (10, 0, 47, 1)$ lies on line ℓ_3
703 : $P_{196710} = (37, 0, 47, 1)$ lies on line ℓ_4
704 : $P_{196784} = (47, 1, 47, 1)$ lies on line ℓ_{13}
705 : $P_{197323} = (10, 10, 47, 1)$ lies on line ℓ_6
706 : $P_{199078} = (37, 37, 47, 1)$ lies on line ℓ_7
707 : $P_{199664} = (47, 46, 47, 1)$ lies on line ℓ_{10}

708 : $P_{200779} = (10, 0, 48, 1)$ lies on line ℓ_3
709 : $P_{200806} = (37, 0, 48, 1)$ lies on line ℓ_4
710 : $P_{200815} = (46, 0, 48, 1)$ lies on line ℓ_5
711 : $P_{201419} = (10, 10, 48, 1)$ lies on line ℓ_6
712 : $P_{203174} = (37, 37, 48, 1)$ lies on line ℓ_7
713 : $P_{203417} = (24, 41, 48, 1)$ lies on line ℓ_{13}
714 : $P_{203484} = (27, 42, 48, 1)$ lies on line ℓ_{12}
715 : $P_{203759} = (46, 46, 48, 1)$ lies on line ℓ_8
716 : $P_{203907} = (2, 49, 48, 1)$ lies on line ℓ_{11}
717 : $P_{203929} = (24, 49, 48, 1)$ lies on line ℓ_{10}
718 : $P_{203932} = (27, 49, 48, 1)$ lies on line ℓ_9
719 : $P_{204035} = (2, 51, 48, 1)$ lies on line ℓ_{14}
720 : $P_{204875} = (10, 0, 49, 1)$ lies on line ℓ_3
721 : $P_{204902} = (37, 0, 49, 1)$ lies on line ℓ_4
722 : $P_{204911} = (46, 0, 49, 1)$ lies on line ℓ_5
723 : $P_{205515} = (10, 10, 49, 1)$ lies on line ℓ_6
724 : $P_{205693} = (60, 12, 49, 1)$ lies on line ℓ_{13}
725 : $P_{206766} = (45, 29, 49, 1)$ lies on line ℓ_{14}
726 : $P_{206929} = (16, 32, 49, 1)$ lies on line ℓ_{12}
727 : $P_{207270} = (37, 37, 49, 1)$ lies on line ℓ_7
728 : $P_{207855} = (46, 46, 49, 1)$ lies on line ℓ_8
729 : $P_{207953} = (16, 48, 49, 1)$ lies on line ℓ_9
730 : $P_{207982} = (45, 48, 49, 1)$ lies on line ℓ_{11}
731 : $P_{207997} = (60, 48, 49, 1)$ lies on line ℓ_{10}
732 : $P_{208971} = (10, 0, 50, 1)$ lies on line ℓ_3
733 : $P_{208998} = (37, 0, 50, 1)$ lies on line ℓ_4
734 : $P_{209007} = (46, 0, 50, 1)$ lies on line ℓ_5
735 : $P_{209138} = (49, 2, 50, 1)$ lies on line ℓ_{13}
736 : $P_{209611} = (10, 10, 50, 1)$ lies on line ℓ_6
737 : $P_{209918} = (61, 14, 50, 1)$ lies on line ℓ_{14}
738 : $P_{211366} = (37, 37, 50, 1)$ lies on line ℓ_7
739 : $P_{211951} = (46, 46, 50, 1)$ lies on line ℓ_8
740 : $P_{212238} = (13, 51, 50, 1)$ lies on line ℓ_9
741 : $P_{212274} = (49, 51, 50, 1)$ lies on line ℓ_{10}
742 : $P_{212286} = (61, 51, 50, 1)$ lies on line ℓ_{11}
743 : $P_{212942} = (13, 62, 50, 1)$ lies on line ℓ_{12}
744 : $P_{213067} = (10, 0, 51, 1)$ lies on line ℓ_3
745 : $P_{213094} = (37, 0, 51, 1)$ lies on line ℓ_4
746 : $P_{213103} = (46, 0, 51, 1)$ lies on line ℓ_5
747 : $P_{213707} = (10, 10, 51, 1)$ lies on line ℓ_6
748 : $P_{215123} = (18, 32, 51, 1)$ lies on line ℓ_{14}
749 : $P_{215462} = (37, 37, 51, 1)$ lies on line ℓ_7
750 : $P_{215574} = (21, 39, 51, 1)$ lies on line ℓ_{13}
751 : $P_{216047} = (46, 46, 51, 1)$ lies on line ℓ_8
752 : $P_{216263} = (6, 50, 51, 1)$ lies on line ℓ_9
753 : $P_{216275} = (18, 50, 51, 1)$ lies on line ℓ_{11}
754 : $P_{216278} = (21, 50, 51, 1)$ lies on line ℓ_{10}
755 : $P_{216391} = (6, 52, 51, 1)$ lies on line ℓ_{12}
756 : $P_{217163} = (10, 0, 52, 1)$ lies on line ℓ_3
757 : $P_{217190} = (37, 0, 52, 1)$ lies on line ℓ_4
758 : $P_{217199} = (46, 0, 52, 1)$ lies on line ℓ_5
759 : $P_{217336} = (55, 2, 52, 1)$ lies on line ℓ_{12}
760 : $P_{217803} = (10, 10, 52, 1)$ lies on line ℓ_6
761 : $P_{219116} = (43, 30, 52, 1)$ lies on line ℓ_{13}
762 : $P_{219558} = (37, 37, 52, 1)$ lies on line ℓ_7
763 : $P_{219742} = (29, 40, 52, 1)$ lies on line ℓ_{14}
764 : $P_{220143} = (46, 46, 52, 1)$ lies on line ℓ_8
765 : $P_{220574} = (29, 53, 52, 1)$ lies on line ℓ_{11}
766 : $P_{220588} = (43, 53, 52, 1)$ lies on line ℓ_{10}
767 : $P_{220600} = (55, 53, 52, 1)$ lies on line ℓ_9
768 : $P_{221259} = (10, 0, 53, 1)$ lies on line ℓ_3
769 : $P_{221286} = (37, 0, 53, 1)$ lies on line ℓ_4
770 : $P_{221295} = (46, 0, 53, 1)$ lies on line ℓ_5
771 : $P_{221683} = (50, 6, 53, 1)$ lies on line ℓ_{14}
772 : $P_{221821} = (60, 8, 53, 1)$ lies on line ℓ_{12}
773 : $P_{221899} = (10, 10, 53, 1)$ lies on line ℓ_6
774 : $P_{223654} = (37, 37, 53, 1)$ lies on line ℓ_7
775 : $P_{224239} = (46, 46, 53, 1)$ lies on line ℓ_8
776 : $P_{224592} = (15, 52, 53, 1)$ lies on line ℓ_{10}
777 : $P_{224627} = (50, 52, 53, 1)$ lies on line ℓ_{11}
778 : $P_{224637} = (60, 52, 53, 1)$ lies on line ℓ_9
779 : $P_{225040} = (15, 59, 53, 1)$ lies on line ℓ_{13}
780 : $P_{225355} = (10, 0, 54, 1)$ lies on line ℓ_3
781 : $P_{225382} = (37, 0, 54, 1)$ lies on line ℓ_4
782 : $P_{225391} = (46, 0, 54, 1)$ lies on line ℓ_5
783 : $P_{225995} = (10, 10, 54, 1)$ lies on line ℓ_6
784 : $P_{226723} = (34, 21, 54, 1)$ lies on line ℓ_{14}
785 : $P_{226786} = (33, 22, 54, 1)$ lies on line ℓ_{12}
786 : $P_{227750} = (37, 37, 54, 1)$ lies on line ℓ_7
787 : $P_{228335} = (46, 46, 54, 1)$ lies on line ℓ_8
788 : $P_{228739} = (2, 53, 54, 1)$ lies on line ℓ_{13}
789 : $P_{228867} = (2, 55, 54, 1)$ lies on line ℓ_{10}
790 : $P_{228898} = (33, 55, 54, 1)$ lies on line ℓ_9
791 : $P_{228899} = (34, 55, 54, 1)$ lies on line ℓ_{11}
792 : $P_{229451} = (10, 0, 55, 1)$ lies on line ℓ_3
793 : $P_{229478} = (37, 0, 55, 1)$ lies on line ℓ_4
794 : $P_{229487} = (46, 0, 55, 1)$ lies on line ℓ_5
795 : $P_{230091} = (10, 10, 55, 1)$ lies on line ℓ_6
796 : $P_{230503} = (38, 16, 55, 1)$ lies on line ℓ_{13}
797 : $P_{231275} = (42, 28, 55, 1)$ lies on line ℓ_{12}
798 : $P_{231846} = (37, 37, 55, 1)$ lies on line ℓ_7
799 : $P_{232431} = (46, 46, 55, 1)$ lies on line ℓ_8
800 : $P_{232910} = (13, 54, 55, 1)$ lies on line ℓ_{11}
801 : $P_{232935} = (38, 54, 55, 1)$ lies on line ℓ_{10}
802 : $P_{232939} = (42, 54, 55, 1)$ lies on line ℓ_9
803 : $P_{233230} = (13, 59, 55, 1)$ lies on line ℓ_{14}
804 : $P_{233547} = (10, 0, 56, 1)$ lies on line ℓ_3
805 : $P_{233574} = (37, 0, 56, 1)$ lies on line ℓ_4
806 : $P_{233583} = (46, 0, 56, 1)$ lies on line ℓ_5
807 : $P_{233917} = (60, 5, 56, 1)$ lies on line ℓ_{14}
808 : $P_{234187} = (10, 10, 56, 1)$ lies on line ℓ_6
809 : $P_{235299} = (34, 27, 56, 1)$ lies on line ℓ_{12}
810 : $P_{235942} = (37, 37, 56, 1)$ lies on line ℓ_7
811 : $P_{236000} = (31, 38, 56, 1)$ lies on line ℓ_{13}
812 : $P_{236527} = (46, 46, 56, 1)$ lies on line ℓ_8
813 : $P_{237216} = (31, 57, 56, 1)$ lies on line ℓ_{10}
814 : $P_{237219} = (34, 57, 56, 1)$ lies on line ℓ_9
815 : $P_{237245} = (60, 57, 56, 1)$ lies on line ℓ_{11}

816 : $P_{237643} = (10, 0, 57, 1)$ lies on line ℓ_3
817 : $P_{237670} = (37, 0, 57, 1)$ lies on line ℓ_4
818 : $P_{237679} = (46, 0, 57, 1)$ lies on line ℓ_5
819 : $P_{237884} = (59, 3, 57, 1)$ lies on line ℓ_{13}
820 : $P_{238283} = (10, 10, 57, 1)$ lies on line ℓ_6
821 : $P_{238762} = (41, 17, 57, 1)$ lies on line ℓ_{12}
822 : $P_{240038} = (37, 37, 57, 1)$ lies on line ℓ_7
823 : $P_{240404} = (19, 43, 57, 1)$ lies on line ℓ_{14}
824 : $P_{240623} = (46, 46, 57, 1)$ lies on line ℓ_8
825 : $P_{241236} = (19, 56, 57, 1)$ lies on line ℓ_{11}
826 : $P_{241258} = (41, 56, 57, 1)$ lies on line ℓ_9
827 : $P_{241276} = (59, 56, 57, 1)$ lies on line ℓ_{10}
828 : $P_{241739} = (10, 0, 58, 1)$ lies on line ℓ_3
829 : $P_{241766} = (37, 0, 58, 1)$ lies on line ℓ_4
830 : $P_{241775} = (46, 0, 58, 1)$ lies on line ℓ_5
831 : $P_{242379} = (10, 10, 58, 1)$ lies on line ℓ_6
832 : $P_{242615} = (54, 13, 58, 1)$ lies on line ℓ_{13}
833 : $P_{242741} = (52, 15, 58, 1)$ lies on line ℓ_{12}
834 : $P_{244134} = (37, 37, 58, 1)$ lies on line ℓ_7
835 : $P_{244719} = (46, 46, 58, 1)$ lies on line ℓ_8
836 : $P_{245316} = (3, 56, 58, 1)$ lies on line ℓ_{14}
837 : $P_{245508} = (3, 59, 58, 1)$ lies on line ℓ_{11}
838 : $P_{245557} = (52, 59, 58, 1)$ lies on line ℓ_9
839 : $P_{245559} = (54, 59, 58, 1)$ lies on line ℓ_{10}
840 : $P_{245835} = (10, 0, 59, 1)$ lies on line ℓ_3
841 : $P_{245862} = (37, 0, 59, 1)$ lies on line ℓ_4
842 : $P_{245871} = (46, 0, 59, 1)$ lies on line ℓ_5
843 : $P_{246208} = (63, 5, 59, 1)$ lies on line ℓ_{12}
844 : $P_{246475} = (10, 10, 59, 1)$ lies on line ℓ_6
845 : $P_{247277} = (44, 22, 59, 1)$ lies on line ℓ_{14}
846 : $P_{248230} = (37, 37, 59, 1)$ lies on line ℓ_7
847 : $P_{248403} = (18, 40, 59, 1)$ lies on line ℓ_{13}
848 : $P_{248815} = (46, 46, 59, 1)$ lies on line ℓ_8
849 : $P_{249555} = (18, 58, 59, 1)$ lies on line ℓ_{10}
850 : $P_{249581} = (44, 58, 59, 1)$ lies on line ℓ_{11}
851 : $P_{249600} = (63, 58, 59, 1)$ lies on line ℓ_9
852 : $P_{249931} = (10, 0, 60, 1)$ lies on line ℓ_3
853 : $P_{249958} = (37, 0, 60, 1)$ lies on line ℓ_4
854 : $P_{249967} = (46, 0, 60, 1)$ lies on line ℓ_5
855 : $P_{250571} = (10, 10, 60, 1)$ lies on line ℓ_6
856 : $P_{251053} = (44, 17, 60, 1)$ lies on line ℓ_{13}
857 : $P_{251876} = (35, 30, 60, 1)$ lies on line ℓ_{14}
858 : $P_{252326} = (37, 37, 60, 1)$ lies on line ℓ_7
859 : $P_{252911} = (46, 46, 60, 1)$ lies on line ℓ_8
860 : $P_{253199} = (14, 51, 60, 1)$ lies on line ℓ_{12}
861 : $P_{253839} = (14, 61, 60, 1)$ lies on line ℓ_9
862 : $P_{253860} = (35, 61, 60, 1)$ lies on line ℓ_{11}
863 : $P_{253869} = (44, 61, 60, 1)$ lies on line ℓ_{10}
864 : $P_{254027} = (10, 0, 61, 1)$ lies on line ℓ_3
865 : $P_{254054} = (37, 0, 61, 1)$ lies on line ℓ_4
866 : $P_{254063} = (46, 0, 61, 1)$ lies on line ℓ_5
867 : $P_{254667} = (10, 10, 61, 1)$ lies on line ℓ_6
868 : $P_{256422} = (37, 37, 61, 1)$ lies on line ℓ_7
869 : $P_{257007} = (46, 46, 61, 1)$ lies on line ℓ_8
870 : $P_{257101} = (12, 48, 61, 1)$ lies on line ℓ_{14}
871 : $P_{257353} = (8, 52, 61, 1)$ lies on line ℓ_{13}
872 : $P_{257670} = (5, 57, 61, 1)$ lies on line ℓ_{12}
873 : $P_{257862} = (5, 60, 61, 1)$ lies on line ℓ_9
874 : $P_{257865} = (8, 60, 61, 1)$ lies on line ℓ_{10}
875 : $P_{257869} = (12, 60, 61, 1)$ lies on line ℓ_{11}
876 : $P_{258123} = (10, 0, 62, 1)$ lies on line ℓ_3
877 : $P_{258150} = (37, 0, 62, 1)$ lies on line ℓ_4
878 : $P_{258159} = (46, 0, 62, 1)$ lies on line ℓ_5
879 : $P_{258763} = (10, 10, 62, 1)$ lies on line ℓ_6
880 : $P_{260381} = (28, 35, 62, 1)$ lies on line ℓ_{14}
881 : $P_{260518} = (37, 37, 62, 1)$ lies on line ℓ_7
882 : $P_{260633} = (24, 39, 62, 1)$ lies on line ℓ_{12}
883 : $P_{261103} = (46, 46, 62, 1)$ lies on line ℓ_8
884 : $P_{261830} = (5, 58, 62, 1)$ lies on line ℓ_{13}
885 : $P_{262150} = (5, 63, 62, 1)$ lies on line ℓ_{10}
886 : $P_{262169} = (24, 63, 62, 1)$ lies on line ℓ_9
887 : $P_{262173} = (28, 63, 62, 1)$ lies on line ℓ_{11}
888 : $P_{262219} = (10, 0, 63, 1)$ lies on line ℓ_3
889 : $P_{262246} = (37, 0, 63, 1)$ lies on line ℓ_4
890 : $P_{262255} = (46, 0, 63, 1)$ lies on line ℓ_5
891 : $P_{262859} = (10, 10, 63, 1)$ lies on line ℓ_6
892 : $P_{263092} = (51, 13, 63, 1)$ lies on line ℓ_{14}
893 : $P_{264226} = (33, 31, 63, 1)$ lies on line ℓ_{13}
894 : $P_{264614} = (37, 37, 63, 1)$ lies on line ℓ_7
895 : $P_{265108} = (19, 45, 63, 1)$ lies on line ℓ_{12}
896 : $P_{265199} = (46, 46, 63, 1)$ lies on line ℓ_8
897 : $P_{266196} = (19, 62, 63, 1)$ lies on line ℓ_9
898 : $P_{266210} = (33, 62, 63, 1)$ lies on line ℓ_{10}
899 : $P_{266228} = (51, 62, 63, 1)$ lies on line ℓ_{11}

The single points on the surface are:

Points on surface but on no line

The surface has 3482 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
0	0	1	1	1	0	0	1	0	0	0	1	0	0	1	0
1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	1
2	1	1	0	0	0	1	0	0	1	1	0	0	1	0	0
3	1	0	0	0	1	1	1	1	1	0	0	1	1	0	0
4	0	1	0	1	0	1	1	1	1	1	0	0	0	1	0
5	0	0	1	1	1	0	1	1	1	0	1	0	0	0	1
6	1	0	0	1	1	1	0	1	1	1	0	0	0	0	1
7	0	1	0	1	1	1	1	0	1	0	1	0	1	0	0
8	0	0	1	1	1	1	1	1	0	0	0	1	0	1	0
9	0	0	1	0	1	0	1	0	0	0	1	1	1	0	0
10	1	0	0	0	0	1	0	1	0	1	0	1	0	1	0
11	0	1	0	1	0	0	0	0	1	1	1	0	0	0	1
12	0	0	1	1	0	0	0	1	0	1	0	0	0	1	1
13	1	0	0	0	1	0	0	0	1	0	1	0	1	0	1
14	0	1	0	0	0	1	1	0	0	0	0	1	1	1	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_6	ℓ_{10}	ℓ_{13}
in point	P_1	P_1	P_{4172}	P_{4812}	P_{4236}	P_{4876}

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_4	ℓ_7	ℓ_{11}	ℓ_{14}
in point	P_1	P_1	P_{4199}	P_{6567}	P_{4263}	P_{6503}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_5	ℓ_8	ℓ_9	ℓ_{12}
in point	P_1	P_1	P_{4208}	P_{7152}	P_{4272}	P_{7216}

Line 3 intersects

Line	ℓ_0	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}
in point	P_{4172}	P_2	P_2	P_2	P_2	P_2	P_{8268}	P_{49227}

Line 4 intersects

Line	ℓ_1	ℓ_3	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{13}
in point	P_{4199}	P_2	P_2	P_2	P_2	P_2	P_{8295}	P_{151654}

Line 5 intersects

Line	ℓ_2	ℓ_3	ℓ_4	ℓ_6	ℓ_7	ℓ_8	ℓ_{10}	ℓ_{14}
in point	P_{4208}	P_2	P_2	P_2	P_2	P_2	P_{8304}	P_{196719}

Line 6 intersects

Line	ℓ_0	ℓ_3	ℓ_4	ℓ_5	ℓ_7	ℓ_8	ℓ_9	ℓ_{14}
in point	P_{4812}	P_2	P_2	P_2	P_2	P_2	P_{49867}	P_{8907}

Line 7 intersects

Line	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_8	ℓ_{10}	ℓ_{12}
in point	P_{6567}	P_2	P_2	P_2	P_2	P_2	P_{154022}	P_{10662}

Line 8 intersects

Line	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_{11}	ℓ_{13}
in point	P_{7152}	P_2	P_2	P_2	P_2	P_2	P_{199663}	P_{11247}

Line 9 intersects

Line	ℓ_2	ℓ_4	ℓ_6	ℓ_{10}	ℓ_{11}	ℓ_{12}
in point	P_{4272}	P_{8295}	P_{49867}	P_{195596}	P_{158064}	P_{199617}

Line 10 intersects

Line	ℓ_0	ℓ_5	ℓ_7	ℓ_9	ℓ_{11}	ℓ_{13}
in point	P_{4236}	P_{8304}	P_{154022}	P_{195596}	P_{45861}	P_{49857}

Line 11 intersects

Line	ℓ_1	ℓ_3	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{14}
in point	P_{4263}	P_{8268}	P_{199663}	P_{158064}	P_{45861}	P_{153985}

Line 12 intersects

Line	ℓ_2	ℓ_3	ℓ_7	ℓ_9	ℓ_{13}	ℓ_{14}
in point	P_{7216}	P_{49227}	P_{10662}	P_{199617}	P_{194892}	P_{156464}

Line 13 intersects

Line	ℓ_0	ℓ_4	ℓ_8	ℓ_{10}	ℓ_{12}	ℓ_{14}
in point	P_{4876}	P_{151654}	P_{11247}	P_{49857}	P_{194892}	P_{48165}

Line 14 intersects

Line	ℓ_1	ℓ_5	ℓ_6	ℓ_{11}	ℓ_{12}	ℓ_{13}
in point	P_{6503}	P_{196719}	P_{8907}	P_{153985}	P_{156464}	P_{48165}

The surface has 4417 points:
Too many to print.