Rank-65695 over GF(64)

January 15, 2021

The equation

The equation of the surface is:

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

(0, 0, 1, 1, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)The point rank of the equation over GF(64) is 1107828805

General information

Number of lines	15
Number of points	4417
Number of singular points	1
Number of Eckardt points	3
Number of double points	27
Number of single points	906
Number of points off lines	3480
Number of Hesse planes	0
Number of axes	0
Type of points on lines	65^{15}
Type of lines on points	$6, 3^3, 2^{27}, 1^{906}, 0^{3480}$

Singular Points

The surface has 1 singular points:

$$0: P_{132} = \mathbf{P}(1,1,1,0) = \mathbf{P}(1,1,1,0)$$

The 15 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4097} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4097} = \mathbf{Pl}(0, 0, 1, 0, 1, 0)_{4352}$$

$$\ell_1 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \epsilon^{21} \end{bmatrix}_{4153} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 57 \end{bmatrix}_{4153} = \mathbf{PI}(0,0,56,0,1,0)_{11337}$$

$$\ell_2 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & \epsilon^{42} \end{bmatrix}_{4152} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 56 \end{bmatrix}_{4152} = \mathbf{PI}(0,0,57,0,1,0)_{11464}$$

$$\ell_3 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{17043457} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{17043457} = \mathbf{PI}(0,0,0,1,0,1)_{278529}$$

$$\ell_4 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \epsilon^{21} \end{bmatrix}_{17043513} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 57 \end{bmatrix}_{17043513} = \mathbf{PI}(0,0,0,57,0,1)_{285641}$$

$$\ell_5 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \epsilon^{42} \end{bmatrix}_{17043512} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 56 \end{bmatrix}_{17043512} = \mathbf{PI}(0,0,0,56,0,1)_{285514}$$

$$\ell_6 = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{270530} = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{270530} = \mathbf{PI}(1,0,1,1,1,1)_{544579}$$

$$\ell_7 = \begin{bmatrix} 1 & 0 & 1 & \epsilon^{21} \\ 0 & 1 & 1 & \epsilon^{21} \end{bmatrix}_{15187138} = \begin{bmatrix} 1 & 0 & 1 & 57 \\ 0 & 1 & 1 & 57 \end{bmatrix}_{15187138} = \mathbf{PI}(56,0,56,57,57,1)_{15228099}$$

$$\ell_8 = \begin{bmatrix} 1 & 0 & 1 & \epsilon^{42} \\ 0 & 1 & 1 & \epsilon^{42} \end{bmatrix}_{14920770} = \begin{bmatrix} 1 & 0 & 1 & 56 \\ 0 & 1 & 1 & 56 \end{bmatrix}_{14920770} = \mathbf{PI}(57,0,57,56,56,1)_{14966147}$$

$$\ell_9 = \begin{bmatrix} 1 & 0 & \epsilon^{42} & \epsilon^{42} \\ 0 & 1 & \epsilon^{21} & \epsilon^{42} \end{bmatrix}_{1549681} = \begin{bmatrix} 1 & 0 & 56 & 56 \\ 0 & 1 & 57 & 56 \end{bmatrix}_{15149681} = \mathbf{PI}(1,1,1,1,1,1)_{556044}$$

$$\ell_{11} = \begin{bmatrix} 1 & 0 & \epsilon^{21} & \epsilon^{42} \\ 0 & 1 & \epsilon^{42} & \epsilon^{42} \end{bmatrix}_{15153841} = \begin{bmatrix} 1 & 0 & 56 & 57 \\ 0 & 1 & 56 & 57 \end{bmatrix}_{15420209} = \mathbf{PI}(1,1,1,1,1,1)_{556044}$$

$$\ell_{12} = \begin{bmatrix} 1 & 0 & \epsilon^{42} & \epsilon^{42} \\ 0 & 1 & \epsilon^{42} & \epsilon^{42} \end{bmatrix}_{15436049} = \begin{bmatrix} 1 & 0 & 56 & 57 \\ 0 & 1 & 56 & 57 \end{bmatrix}_{15420209} = \mathbf{PI}(56,57,56,57,56,57,1)_{15447346}$$

$$\ell_{13} = \begin{bmatrix} 1 & 0 & \epsilon^{42} & \epsilon^{42} \\ 0 & 1 & \epsilon^{21} & \epsilon^{21} \end{bmatrix}_{499441} = \begin{bmatrix} 1 & 0 & 56 & 57 \\ 0 & 1 & 57 & 57 \end{bmatrix}_{15416049} = \mathbf{PI}(57,56,57,56,56,1)_{1518913}$$

$$\ell_{14} = \begin{bmatrix} 1 & 0 & \epsilon^{21} & \epsilon^{21} \\ 0 & 1 & \epsilon^{21} & \epsilon^{21} \end{bmatrix}_{15416049} = \begin{bmatrix} 1 & 0 & 57 & 1 \\ 0 & 1 & 56 & 1 \end{bmatrix}_{503601} = \mathbf{PI}(57,56,57,56,56,1)_{15189236}$$

Rank of lines: (4097, 4153, 4152, 17043457, 17043513, 17043512, 270530, 15187138, 14920770, 15149681, 15420209, 15153841, 499441, 15416049, 503601)

Rank of points on Klein quadric: (4352, 11337, 11464, 278529, 285641, 285514, 544579, 15228099, 14966147, 555981, 556044, 15447409, 15447346, 15189173, 15189236)

Eckardt Points

The surface has 3 Eckardt points:

 $0: P_0 = \mathbf{P}(1, 0, 0, 0) = \mathbf{P}(1, 0, 0, 0),$

1: $P_1 = \mathbf{P}(0, 1, 0, 0) = \mathbf{P}(0, 1, 0, 0),$

 $2: P_5 = \mathbf{P}(1, 1, 0, 0) = \mathbf{P}(1, 1, 0, 0).$

Double Points

The surface has 27 Double points:

The double points on the surface are:

$P_{11841} = (0, 56, 1, 1) = \ell_3 \cap \ell_{13}$ $P_{237121} = (0, 56, 56, 1) = \ell_4 \cap \ell_7$ $P_{237185} = (0, 57, 56, 1) = \ell_4 \cap \ell_9$ $P_{233601} = (0, 1, 56, 1) = \ell_4 \cap \ell_{14}$ $P_{241281} = (0, 57, 57, 1) = \ell_5 \cap \ell_{16}$ $P_{241217} = (0, 56, 57, 1) = \ell_5 \cap \ell_{10}$ $P_{237697} = (0, 1, 57, 1) = \ell_5 \cap \ell_{12}$ $P_{11961} = (56, 57, 1, 1) = \ell_6 \cap \ell_{12}$ $P_{11898} = (57, 56, 1, 1) = \ell_6 \cap \ell_{14}$ $P_{237186} = (1, 57, 56, 1) = \ell_7 \cap \ell_{10}$ $P_{233658} = (57, 1, 56, 1) = \ell_7 \cap \ell_{13}$ $P_{241218} = (1, 56, 57, 1) = \ell_8 \cap \ell_9$ $P_{237753} = (56, 1, 57, 1) = \ell_8 \cap \ell_{11}$

Single Points

The surface has 906 single points: The single points on the surface are:

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0: P_{4282} = (56, 1, 0, 1) lies on line \ell_9
1: P_{4283} = (57, 1, 0, 1) lies on line \ell_{10}
2: P_{7747} = (1, 56, 0, 1) lies on line \ell_{11}
3: P_{7803} = (57, 56, 0, 1) lies on line \ell_{12}
4: P_{7811} = (1, 57, 0, 1) lies on line \ell_{13}
5: P_{7866} = (56, 57, 0, 1) lies on line \ell_{14}
6: P_{8260} = (2,0,1,1) lies on line \ell_0
7: P_{8261} = (3,0,1,1) lies on line \ell_0
8: P_{8262} = (4, 0, 1, 1) lies on line \ell_0
9: P_{8263} = (5,0,1,1) lies on line \ell_0
10: P_{8264} = (6,0,1,1) lies on line \ell_0
11: P_{8265} = (7,0,1,1) lies on line \ell_0
12: P_{8266} = (8,0,1,1) lies on line \ell_0
13: P_{8267} = (9,0,1,1) lies on line \ell_0
14: P_{8268} = (10, 0, 1, 1) lies on line \ell_0
15: P_{8269} = (11, 0, 1, 1) lies on line \ell_0
16: P_{8270} = (12, 0, 1, 1) lies on line \ell_0
17: P_{8271} = (13, 0, 1, 1) lies on line \ell_0
18: P_{8272} = (14, 0, 1, 1) lies on line \ell_0
19: P_{8273} = (15, 0, 1, 1) lies on line \ell_0
20: P_{8274} = (16, 0, 1, 1) lies on line \ell_0
21: P_{8275} = (17, 0, 1, 1) lies on line \ell_0
22: P_{8276} = (18, 0, 1, 1) lies on line \ell_0
23: P_{8277} = (19, 0, 1, 1) lies on line \ell_0
24: P_{8278} = (20, 0, 1, 1) lies on line \ell_0
25: P_{8279} = (21, 0, 1, 1) lies on line \ell_0
26: P_{8280} = (22, 0, 1, 1) lies on line \ell_0
27: P_{8281} = (23, 0, 1, 1) lies on line \ell_0
28: P_{8282} = (24, 0, 1, 1) lies on line \ell_0
29: P_{8283} = (25, 0, 1, 1) lies on line \ell_0
30: P_{8284} = (26, 0, 1, 1) lies on line \ell_0
31: P_{8285} = (27, 0, 1, 1) lies on line \ell_0
32: P_{8286} = (28, 0, 1, 1) lies on line \ell_0
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33: P_{8287} = (29, 0, 1, 1) lies on line \ell_0
34: P_{8288} = (30, 0, 1, 1) lies on line \ell_0
35: P_{8289} = (31, 0, 1, 1) lies on line \ell_0
36: P_{8290} = (32, 0, 1, 1) lies on line \ell_0
37: P_{8291} = (33, 0, 1, 1) lies on line \ell_0
38: P_{8292} = (34, 0, 1, 1) lies on line \ell_0
39: P_{8293} = (35, 0, 1, 1) lies on line \ell_0
40: P_{8294} = (36, 0, 1, 1) lies on line \ell_0
41: P_{8295} = (37, 0, 1, 1) lies on line \ell_0
42: P_{8296} = (38, 0, 1, 1) lies on line \ell_0
43: P_{8297} = (39, 0, 1, 1) lies on line \ell_0
44: P_{8298} = (40, 0, 1, 1) lies on line \ell_0
45: P_{8299} = (41, 0, 1, 1) lies on line \ell_0
46: P_{8300} = (42, 0, 1, 1) lies on line \ell_0
47: P_{8301} = (43, 0, 1, 1) lies on line \ell_0
48: P_{8302} = (44, 0, 1, 1) lies on line \ell_0
49: P_{8303} = (45, 0, 1, 1) lies on line \ell_0
50: P_{8304} = (46, 0, 1, 1) lies on line \ell_0
51: P_{8305} = (47, 0, 1, 1) lies on line \ell_0
52: P_{8306} = (48, 0, 1, 1) lies on line \ell_0
53: P_{8307} = (49, 0, 1, 1) lies on line \ell_0
54: P_{8308} = (50, 0, 1, 1) lies on line \ell_0
55: P_{8309} = (51, 0, 1, 1) lies on line \ell_0
56: P_{8310} = (52, 0, 1, 1) lies on line \ell_0
57: P_{8311} = (53, 0, 1, 1) lies on line \ell_0
58: P_{8312} = (54, 0, 1, 1) lies on line \ell_0
59: P_{8313} = (55, 0, 1, 1) lies on line \ell_0
60: P_{8316} = (58, 0, 1, 1) lies on line \ell_0
61: P_{8317} = (59, 0, 1, 1) lies on line \ell_0
62: P_{8318} = (60, 0, 1, 1) lies on line \ell_0
63: P_{8319} = (61, 0, 1, 1) lies on line \ell_0
64 : P_{8320} = (62, 0, 1, 1) lies on line \ell_0
65: P_{8321} = (63, 0, 1, 1) lies on line \ell_0
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66: P_{8385} = (0, 2, 1, 1) lies on line \ell_3
                                                                     120: P_{10113} = (0, 29, 1, 1) lies on line \ell_3
67: P_{8388} = (3, 2, 1, 1) lies on line \ell_6
                                                                     121: P_{10141} = (28, 29, 1, 1) lies on line \ell_6
                                                                     122: P_{10177} = (0, 30, 1, 1) lies on line \ell_3
68: P_{8449} = (0, 3, 1, 1) lies on line \ell_3
69: P_{8451} = (2, 3, 1, 1) lies on line \ell_6
                                                                     123: P_{10208} = (31, 30, 1, 1) lies on line \ell_6
70: P_{8513} = (0, 4, 1, 1) lies on line \ell_3
                                                                     124: P_{10241} = (0, 31, 1, 1) lies on line \ell_3
71: P_{8518} = (5, 4, 1, 1) lies on line \ell_6
                                                                     125: P_{10271} = (30, 31, 1, 1) lies on line \ell_6
72: P_{8577} = (0, 5, 1, 1) lies on line \ell_3
                                                                     126: P_{10305} = (0, 32, 1, 1) lies on line \ell_3
73: P_{8581} = (4, 5, 1, 1) lies on line \ell_6
                                                                     127: P_{10338} = (33, 32, 1, 1) lies on line \ell_6
74: P_{8641} = (0, 6, 1, 1) lies on line \ell_3
                                                                     128: P_{10369} = (0, 33, 1, 1) lies on line \ell_3
75: P_{8648} = (7, 6, 1, 1) lies on line \ell_6
                                                                     129: P_{10401} = (32, 33, 1, 1) lies on line \ell_6
76: P_{8705} = (0, 7, 1, 1) lies on line \ell_3
                                                                     130: P_{10433} = (0, 34, 1, 1) lies on line \ell_3
77: P_{8711} = (6,7,1,1) lies on line \ell_6
                                                                     131: P_{10468} = (35, 34, 1, 1) lies on line \ell_6
78: P_{8769} = (0, 8, 1, 1) lies on line \ell_3
                                                                     132: P_{10497} = (0, 35, 1, 1) lies on line \ell_3
                                                                     133: P_{10531} = (34, 35, 1, 1) lies on line \ell_6
79: P_{8778} = (9, 8, 1, 1) lies on line \ell_6
80: P_{8833} = (0, 9, 1, 1) lies on line \ell_3
                                                                     134: P_{10561} = (0, 36, 1, 1) lies on line \ell_3
81: P_{8841} = (8, 9, 1, 1) lies on line \ell_6
                                                                     135: P_{10598} = (37, 36, 1, 1) lies on line \ell_6
82: P_{8897} = (0, 10, 1, 1) lies on line \ell_3
                                                                     136: P_{10625} = (0, 37, 1, 1) lies on line \ell_3
83: P_{8908} = (11, 10, 1, 1) lies on line \ell_6
                                                                     137: P_{10661} = (36, 37, 1, 1) lies on line \ell_6
84: P_{8961} = (0, 11, 1, 1) lies on line \ell_3
                                                                     138: P_{10689} = (0, 38, 1, 1) lies on line \ell_3
                                                                     139 : P_{10728} = (39, 38, 1, 1) lies on line \ell_6
85: P_{8971} = (10, 11, 1, 1) lies on line \ell_6
86: P_{9025} = (0, 12, 1, 1) lies on line \ell_3
                                                                     140: P_{10753} = (0, 39, 1, 1) lies on line \ell_3
87: P_{9038} = (13, 12, 1, 1) lies on line \ell_6
                                                                     141 : P_{10791} = (38, 39, 1, 1) lies on line \ell_6
88: P_{9089} = (0, 13, 1, 1) lies on line \ell_3
                                                                     142: P_{10817} = (0, 40, 1, 1) lies on line \ell_3
89: P_{9101} = (12, 13, 1, 1) lies on line \ell_6
                                                                     143: P_{10858} = (41, 40, 1, 1) lies on line \ell_6
90: P_{9153} = (0, 14, 1, 1) lies on line \ell_3
                                                                     144: P_{10881} = (0, 41, 1, 1) lies on line \ell_3
91: P_{9168} = (15, 14, 1, 1) lies on line \ell_6
                                                                     145: P_{10921} = (40, 41, 1, 1) lies on line \ell_6
92: P_{9217} = (0, 15, 1, 1) lies on line \ell_3
                                                                     146: P_{10945} = (0, 42, 1, 1) lies on line \ell_3
93: P_{9231} = (14, 15, 1, 1) lies on line \ell_6
                                                                     147: P_{10988} = (43, 42, 1, 1) lies on line \ell_6
94: P_{9281} = (0, 16, 1, 1) lies on line \ell_3
                                                                     148: P_{11009} = (0, 43, 1, 1) lies on line \ell_3
95: P_{9298} = (17, 16, 1, 1) lies on line \ell_6
                                                                     149: P_{11051} = (42, 43, 1, 1) lies on line \ell_6
96: P_{9345} = (0, 17, 1, 1) lies on line \ell_3
                                                                     150: P_{11073} = (0, 44, 1, 1) lies on line \ell_3
97: P_{9361} = (16, 17, 1, 1) lies on line \ell_6
                                                                     151: P_{11118} = (45, 44, 1, 1) lies on line \ell_6
98: P_{9409} = (0, 18, 1, 1) lies on line \ell_3
                                                                     152: P_{11137} = (0, 45, 1, 1) lies on line \ell_3
99: P_{9428} = (19, 18, 1, 1) lies on line \ell_6
                                                                     153: P_{11181} = (44, 45, 1, 1) lies on line \ell_6
100: P_{9473} = (0, 19, 1, 1) lies on line \ell_3
                                                                     154: P_{11201} = (0, 46, 1, 1) lies on line \ell_3
101: P_{9491} = (18, 19, 1, 1) lies on line \ell_6
                                                                     155: P_{11248} = (47, 46, 1, 1) lies on line \ell_6
102: P_{9537} = (0, 20, 1, 1) lies on line \ell_3
                                                                     156: P_{11265} = (0, 47, 1, 1) lies on line \ell_3
103: P_{9558} = (21, 20, 1, 1) lies on line \ell_6
                                                                     157: P_{11311} = (46, 47, 1, 1) lies on line \ell_6
104 : P_{9601} = (0, 21, 1, 1) lies on line \ell_3
                                                                     158: P_{11329} = (0, 48, 1, 1) lies on line \ell_3
105: P_{9621} = (20, 21, 1, 1) lies on line \ell_6
                                                                     159: P_{11378} = (49, 48, 1, 1) lies on line \ell_6
106: P_{9665} = (0, 22, 1, 1) lies on line \ell_3
                                                                     160: P_{11393} = (0, 49, 1, 1) lies on line \ell_3
107: P_{9688} = (23, 22, 1, 1) lies on line \ell_6
                                                                     161: P_{11441} = (48, 49, 1, 1) lies on line \ell_6
108: P_{9729} = (0, 23, 1, 1) lies on line \ell_3
                                                                     162: P_{11457} = (0, 50, 1, 1) lies on line \ell_3
109: P_{9751} = (22, 23, 1, 1) lies on line \ell_6
                                                                     163: P_{11508} = (51, 50, 1, 1) lies on line \ell_6
110: P_{9793} = (0, 24, 1, 1) lies on line \ell_3
                                                                     164: P_{11521} = (0, 51, 1, 1) lies on line \ell_3
                                                                     165: P_{11571} = (50, 51, 1, 1) lies on line \ell_6
111: P_{9818} = (25, 24, 1, 1) lies on line \ell_6
112: P_{9857} = (0, 25, 1, 1) lies on line \ell_3
                                                                     166: P_{11585} = (0, 52, 1, 1) lies on line \ell_3
113: P_{9881} = (24, 25, 1, 1) lies on line \ell_6
                                                                     167: P_{11638} = (53, 52, 1, 1) lies on line \ell_6
114: P_{9921} = (0, 26, 1, 1) lies on line \ell_3
                                                                     168: P_{11649} = (0, 53, 1, 1) lies on line \ell_3
115: P_{9948} = (27, 26, 1, 1) lies on line \ell_6
                                                                     169: P_{11701} = (52, 53, 1, 1) lies on line \ell_6
116: P_{9985} = (0, 27, 1, 1) lies on line \ell_3
                                                                     170: P_{11713} = (0, 54, 1, 1) lies on line \ell_3
117: P_{10011} = (26, 27, 1, 1) lies on line \ell_6
                                                                     171: P_{11768} = (55, 54, 1, 1) lies on line \ell_6
118: P_{10049} = (0, 28, 1, 1) lies on line \ell_3
                                                                     172: P_{11777} = (0, 55, 1, 1) lies on line \ell_3
119: P_{10078} = (29, 28, 1, 1) lies on line \ell_6
                                                                     173: P_{11831} = (54, 55, 1, 1) lies on line \ell_6
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174 : P_{11969} = (0, 58, 1, 1) lies on line \ell_3
                                                                      228 : P_{41585} = (48, 8, 9, 1) lies on line \ell_{10}
175 : P_{12028} = (59, 58, 1, 1) lies on line \ell_6
                                                                      229: P_{41586} = (49, 8, 9, 1) lies on line \ell_9
176: P_{12033} = (0, 59, 1, 1) lies on line \ell_3
                                                                      230: P_{44105} = (8, 48, 9, 1) lies on line \ell_{13}
177: P_{12091} = (58, 59, 1, 1) lies on line \ell_6
                                                                      231 : P_{44146} = (49, 48, 9, 1) lies on line \ell_{14}
                                                                      232 : P_{44169} = (8, 49, 9, 1) lies on line \ell_{11}
178: P_{12097} = (0, 60, 1, 1) lies on line \ell_3
179: P_{12158} = (61, 60, 1, 1) lies on line \ell_6
                                                                      233: P_{44209} = (48, 49, 9, 1) lies on line \ell_{12}
                                                                      234 : P_{45875} = (50, 11, 10, 1) lies on line \ell_9
180: P_{12161} = (0, 61, 1, 1) lies on line \ell_3
181: P_{12221} = (60, 61, 1, 1) lies on line \ell_6
                                                                      235: P_{45876} = (51, 11, 10, 1) lies on line \ell_{10}
182: P_{12225} = (0, 62, 1, 1) lies on line \ell_3
                                                                      236: P_{48332} = (11, 50, 10, 1) lies on line \ell_{11}
183: P_{12288} = (63, 62, 1, 1) lies on line \ell_6
                                                                      237: P_{48372} = (51, 50, 10, 1) lies on line \ell_{12}
184: P_{12289} = (0, 63, 1, 1) lies on line \ell_3
                                                                      238: P_{48396} = (11, 51, 10, 1) lies on line \ell_{13}
185: P_{12351} = (62, 63, 1, 1) lies on line \ell_6
                                                                      239: P_{48435} = (50, 51, 10, 1) lies on line \ell_{14}
186: P_{12603} = (58, 3, 2, 1) lies on line \ell_9
                                                                      240: P_{49907} = (50, 10, 11, 1) lies on line \ell_{10}
187: P_{12604} = (59, 3, 2, 1) lies on line \ell_{10}
                                                                      241: P_{49908} = (51, 10, 11, 1) lies on line \ell_9
188: P_{16068} = (3, 58, 2, 1) lies on line \ell_{11}
                                                                      242 : P_{52427} = (10, 50, 11, 1) lies on line \ell_{13}
189 : P_{16124} = (59, 58, 2, 1) lies on line \ell_{12}
                                                                      243: P_{52468} = (51, 50, 11, 1) lies on line \ell_{14}
190: P_{16132} = (3, 59, 2, 1) lies on line \ell_{13}
                                                                      244: P_{52491} = (10, 51, 11, 1) lies on line \ell_{11}
191: P_{16187} = (58, 59, 2, 1) lies on line \ell_{14}
                                                                      245: P_{52531} = (50, 51, 11, 1) lies on line \ell_{12}
192: P_{16635} = (58, 2, 3, 1) lies on line \ell_{10}
                                                                      246: P_{54197} = (52, 13, 12, 1) lies on line \ell_9
193: P_{16636} = (59, 2, 3, 1) lies on line \ell_9
                                                                      247: P_{54198} = (53, 13, 12, 1) lies on line \ell_{10}
194: P_{20163} = (2, 58, 3, 1) lies on line \ell_{13}
                                                                      248: P_{56654} = (13, 52, 12, 1) lies on line \ell_{11}
195: P_{20220} = (59, 58, 3, 1) lies on line \ell_{14}
                                                                      249: P_{56694} = (53, 52, 12, 1) lies on line \ell_{12}
196: P_{20227} = (2, 59, 3, 1) lies on line \ell_{11}
                                                                      250: P_{56718} = (13, 53, 12, 1) lies on line \ell_{13}
197 : P_{20283} = (58, 59, 3, 1) lies on line \ell_{12}
                                                                      251: P_{56757} = (52, 53, 12, 1) lies on line \ell_{14}
198: P_{20925} = (60, 5, 4, 1) lies on line \ell_9
                                                                      252: P_{58229} = (52, 12, 13, 1) lies on line \ell_{10}
199: P_{20926} = (61, 5, 4, 1) lies on line \ell_{10}
                                                                      253: P_{58230} = (53, 12, 13, 1) lies on line \ell_9
200: P_{24390} = (5, 60, 4, 1) lies on line \ell_{11}
                                                                      254: P_{60749} = (12, 52, 13, 1) lies on line \ell_{13}
201: P_{24446} = (61, 60, 4, 1) lies on line \ell_{12}
                                                                      255: P_{60790} = (53, 52, 13, 1) lies on line \ell_{14}
202: P_{24454} = (5, 61, 4, 1) lies on line \ell_{13}
                                                                      256: P_{60813} = (12, 53, 13, 1) lies on line \ell_{11}
203: P_{24509} = (60, 61, 4, 1) lies on line \ell_{14}
                                                                      257: P_{60853} = (52, 53, 13, 1) lies on line \ell_{12}
204: P_{24957} = (60, 4, 5, 1) lies on line \ell_{10}
                                                                      258: P_{62519} = (54, 15, 14, 1) lies on line \ell_9
205: P_{24958} = (61, 4, 5, 1) lies on line \ell_9
                                                                      259: P_{62520} = (55, 15, 14, 1) lies on line \ell_{10}
206: P_{28485} = (4, 60, 5, 1) lies on line \ell_{13}
                                                                      260: P_{64976} = (15, 54, 14, 1) lies on line \ell_{11}
207: P_{28542} = (61, 60, 5, 1) lies on line \ell_{14}
                                                                      261: P_{65016} = (55, 54, 14, 1) lies on line \ell_{12}
208: P_{28549} = (4, 61, 5, 1) lies on line \ell_{11}
                                                                      262: P_{65040} = (15, 55, 14, 1) lies on line \ell_{13}
209: P_{28605} = (60, 61, 5, 1) lies on line \ell_{12}
                                                                      263: P_{65079} = (54, 55, 14, 1) lies on line \ell_{14}
210: P_{29247} = (62, 7, 6, 1) lies on line \ell_9
                                                                      264: P_{66551} = (54, 14, 15, 1) lies on line \ell_{10}
211: P_{29248} = (63, 7, 6, 1) lies on line \ell_{10}
                                                                      265: P_{66552} = (55, 14, 15, 1) lies on line \ell_9
212: P_{32712} = (7, 62, 6, 1) lies on line \ell_{11}
                                                                      266: P_{69071} = (14, 54, 15, 1) lies on line \ell_{13}
213 : P_{32768} = (63, 62, 6, 1) lies on line \ell_{12}
                                                                      267: P_{69112} = (55, 54, 15, 1) lies on line \ell_{14}
214: P_{32776} = (7, 63, 6, 1) lies on line \ell_{13}
                                                                      268: P_{69135} = (14, 55, 15, 1) lies on line \ell_{11}
215: P_{32831} = (62, 63, 6, 1) lies on line \ell_{14}
                                                                      269: P_{69175} = (54, 55, 15, 1) lies on line \ell_{12}
216: P_{33279} = (62, 6, 7, 1) lies on line \ell_{10}
                                                                      270: P_{70825} = (40, 17, 16, 1) lies on line \ell_9
217: P_{33280} = (63, 6, 7, 1) lies on line \ell_9
                                                                      271: P_{70826} = (41, 17, 16, 1) lies on line \ell_{10}
218: P_{36807} = (6, 62, 7, 1) lies on line \ell_{13}
                                                                      272: P_{72274} = (17, 40, 16, 1) lies on line \ell_{11}
219: P_{36864} = (63, 62, 7, 1) lies on line \ell_{14}
                                                                      273: P_{72298} = (41, 40, 16, 1) lies on line \ell_{12}
220: P_{36871} = (6, 63, 7, 1) lies on line \ell_{11}
                                                                      274: P_{72338} = (17, 41, 16, 1) lies on line \ell_{13}
221: P_{36927} = (62, 63, 7, 1) lies on line \ell_{12}
                                                                      275: P_{72361} = (40, 41, 16, 1) lies on line \ell_{14}
222: P_{37553} = (48, 9, 8, 1) lies on line \ell_9
                                                                      276: P_{74857} = (40, 16, 17, 1) lies on line \ell_{10}
223: P_{37554} = (49, 9, 8, 1) lies on line \ell_{10}
                                                                      277: P_{74858} = (41, 16, 17, 1) lies on line \ell_9
                                                                      278: P_{76369} = (16, 40, 17, 1) lies on line \ell_{13}
224: P_{40010} = (9, 48, 8, 1) lies on line \ell_{11}
225: P_{40050} = (49, 48, 8, 1) lies on line \ell_{12}
                                                                      279: P_{76394} = (41, 40, 17, 1) lies on line \ell_{14}
226: P_{40074} = (9, 49, 8, 1) lies on line \ell_{13}
                                                                      280: P_{76433} = (16, 41, 17, 1) lies on line \ell_{11}
227: P_{40113} = (48, 49, 8, 1) lies on line \ell_{14}
                                                                      281: P_{76457} = (40, 41, 17, 1) lies on line \ell_{12}
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336: P_{116451} = (34, 26, 27, 1) lies on line \ell_{10}
282 : P_{79147} = (42, 19, 18, 1) lies on line \ell_9
                                                                      337: P_{116452} = (35, 26, 27, 1) lies on line \ell_9
283: P_{79148} = (43, 19, 18, 1) lies on line \ell_{10}
                                                                      338: P_{116955} = (26, 34, 27, 1) lies on line \ell_{13}
284: P_{80596} = (19, 42, 18, 1) lies on line \ell_{11}
285 : P_{80620} = (43, 42, 18, 1) lies on line \ell_{12}
                                                                      339: P_{116964} = (35, 34, 27, 1) lies on line \ell_{14}
286: P_{80660} = (19, 43, 18, 1) lies on line \ell_{13}
                                                                      340: P_{117019} = (26, 35, 27, 1) lies on line \ell_{11}
287: P_{80683} = (42, 43, 18, 1) lies on line \ell_{14}
                                                                      341: P_{117027} = (34, 35, 27, 1) lies on line \ell_{12}
288: P_{83179} = (42, 18, 19, 1) lies on line \ell_{10}
                                                                      342: P_{120741} = (36, 29, 28, 1) lies on line \ell_9
289: P_{83180} = (43, 18, 19, 1) lies on line \ell_9
                                                                      343: P_{120742} = (37, 29, 28, 1) lies on line \ell_{10}
290 : P_{84691} = (18, 42, 19, 1) lies on line \ell_{13}
                                                                      344: P_{121182} = (29, 36, 28, 1) lies on line \ell_{11}
291: P_{84716} = (43, 42, 19, 1) lies on line \ell_{14}
                                                                      345: P_{121190} = (37, 36, 28, 1) lies on line \ell_{12}
292: P_{84755} = (18, 43, 19, 1) lies on line \ell_{11}
                                                                      346: P_{121246} = (29, 37, 28, 1) lies on line \ell_{13}
                                                                      347: P_{121253} = (36, 37, 28, 1) lies on line \ell_{14}
293: P_{84779} = (42, 43, 19, 1) lies on line \ell_{12}
294: P_{87469} = (44, 21, 20, 1) lies on line \ell_9
                                                                      348: P_{124773} = (36, 28, 29, 1) lies on line \ell_{10}
295: P_{87470} = (45, 21, 20, 1) lies on line \ell_{10}
                                                                      349: P_{124774} = (37, 28, 29, 1) lies on line \ell_9
296: P_{88918} = (21, 44, 20, 1) lies on line \ell_{11}
                                                                      350: P_{125277} = (28, 36, 29, 1) lies on line \ell_{13}
297: P_{88942} = (45, 44, 20, 1) lies on line \ell_{12}
                                                                      351: P_{125286} = (37, 36, 29, 1) lies on line \ell_{14}
298: P_{88982} = (21, 45, 20, 1) lies on line \ell_{13}
                                                                      352: P_{125341} = (28, 37, 29, 1) lies on line \ell_{11}
                                                                      353: P_{125349} = (36, 37, 29, 1) lies on line \ell_{12}
299: P_{89005} = (44, 45, 20, 1) lies on line \ell_{14}
300: P_{91501} = (44, 20, 21, 1) lies on line \ell_{10}
                                                                      354: P_{129063} = (38, 31, 30, 1) lies on line \ell_9
                                                                      355: P_{129064} = (39, 31, 30, 1) lies on line \ell_{10}
301: P_{91502} = (45, 20, 21, 1) lies on line \ell_9
302: P_{93013} = (20, 44, 21, 1) lies on line \ell_{13}
                                                                      356: P_{129504} = (31, 38, 30, 1) lies on line \ell_{11}
303: P_{93038} = (45, 44, 21, 1) lies on line \ell_{14}
                                                                      357: P_{129512} = (39, 38, 30, 1) lies on line \ell_{12}
304: P_{93077} = (20, 45, 21, 1) lies on line \ell_{11}
                                                                      358: P_{129568} = (31, 39, 30, 1) lies on line \ell_{13}
305: P_{93101} = (44, 45, 21, 1) lies on line \ell_{12}
                                                                      359: P_{129575} = (38, 39, 30, 1) lies on line \ell_{14}
306: P_{95791} = (46, 23, 22, 1) lies on line \ell_9
                                                                      360: P_{133095} = (38, 30, 31, 1) lies on line \ell_{10}
307: P_{95792} = (47, 23, 22, 1) lies on line \ell_{10}
                                                                      361: P_{133096} = (39, 30, 31, 1) lies on line \ell_9
308: P_{97240} = (23, 46, 22, 1) lies on line \ell_{11}
                                                                      362: P_{133599} = (30, 38, 31, 1) lies on line \ell_{13}
309: P_{97264} = (47, 46, 22, 1) lies on line \ell_{12}
                                                                      363: P_{133608} = (39, 38, 31, 1) lies on line \ell_{14}
310: P_{97304} = (23, 47, 22, 1) lies on line \ell_{13}
                                                                      364: P_{133663} = (30, 39, 31, 1) lies on line \ell_{11}
311: P_{97327} = (46, 47, 22, 1) lies on line \ell_{14}
                                                                      365: P_{133671} = (38, 39, 31, 1) lies on line \ell_{12}
312: P_{99823} = (46, 22, 23, 1) lies on line \ell_{10}
                                                                      366: P_{136794} = (25, 24, 32, 1) lies on line \ell_{12}
313: P_{99824} = (47, 22, 23, 1) lies on line \ell_9
                                                                      367: P_{136802} = (33, 24, 32, 1) lies on line \ell_{11}
314: P_{101335} = (22, 46, 23, 1) lies on line \ell_{13}
                                                                      368: P_{136857} = (24, 25, 32, 1) lies on line \ell_{14}
                                                                      369: P_{136866} = (33, 25, 32, 1) lies on line \ell_{13}
315: P_{101360} = (47, 46, 23, 1) lies on line \ell_{14}
316: P_{101399} = (22, 47, 23, 1) lies on line \ell_{11}
                                                                      370: P_{137369} = (24, 33, 32, 1) lies on line \ell_9
317: P_{101423} = (46, 47, 23, 1) lies on line \ell_{12}
                                                                      371: P_{137370} = (25, 33, 32, 1) lies on line \ell_{10}
318: P_{104097} = (32, 25, 24, 1) lies on line \ell_9
                                                                      372: P_{140890} = (25, 24, 33, 1) lies on line \ell_{14}
319: P_{104098} = (33, 25, 24, 1) lies on line \ell_{10}
                                                                      373: P_{140897} = (32, 24, 33, 1) lies on line \ell_{13}
320: P_{104538} = (25, 32, 24, 1) lies on line \ell_{11}
                                                                      374: P_{140953} = (24, 25, 33, 1) lies on line \ell_{12}
                                                                      375: P_{140961} = (32, 25, 33, 1) lies on line \ell_{11}
321: P_{104546} = (33, 32, 24, 1) lies on line \ell_{12}
322 : P_{104602} = (25, 33, 24, 1) lies on line \ell_{13}
                                                                      376: P_{141401} = (24, 32, 33, 1) lies on line \ell_{10}
323: P_{104609} = (32, 33, 24, 1) lies on line \ell_{14}
                                                                      377: P_{141402} = (25, 32, 33, 1) lies on line \ell_9
324: P_{108129} = (32, 24, 25, 1) lies on line \ell_{10}
                                                                      378 : P_{145116} = (27, 26, 34, 1) lies on line \ell_{12}
325: P_{108130} = (33, 24, 25, 1) lies on line \ell_9
                                                                      379: P_{145124} = (35, 26, 34, 1) lies on line \ell_{11}
326: P_{108633} = (24, 32, 25, 1) lies on line \ell_{13}
                                                                      380: P_{145179} = (26, 27, 34, 1) lies on line \ell_{14}
                                                                      381 : P_{145188} = (35, 27, 34, 1) lies on line \ell_{13}
327: P_{108642} = (33, 32, 25, 1) lies on line \ell_{14}
328: P_{108697} = (24, 33, 25, 1) lies on line \ell_{11}
                                                                      382: P_{145691} = (26, 35, 34, 1) lies on line \ell_9
329: P_{108705} = (32, 33, 25, 1) lies on line \ell_{12}
                                                                      383: P_{145692} = (27, 35, 34, 1) lies on line \ell_{10}
330: P_{112419} = (34, 27, 26, 1) lies on line \ell_9
                                                                      384: P_{149212} = (27, 26, 35, 1) lies on line \ell_{14}
331: P_{112420} = (35, 27, 26, 1) lies on line \ell_{10}
                                                                      385: P_{149219} = (34, 26, 35, 1) lies on line \ell_{13}
332 : P_{112860} = (27, 34, 26, 1) lies on line \ell_{11}
                                                                      386: P_{149275} = (26, 27, 35, 1) lies on line \ell_{12}
333: P_{112868} = (35, 34, 26, 1) lies on line \ell_{12}
                                                                      387: P_{149283} = (34, 27, 35, 1) lies on line \ell_{11}
334 : P_{112924} = (27, 35, 26, 1) lies on line \ell_{13}
                                                                      388: P_{149723} = (26, 34, 35, 1) lies on line \ell_{10}
335: P_{112931} = (34, 35, 26, 1) lies on line \ell_{14}
                                                                      389: P_{149724} = (27, 34, 35, 1) lies on line \ell_9
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444: P_{189782} = (21, 20, 45, 1) lies on line \ell_{14}
390: P_{153438} = (29, 28, 36, 1) lies on line \ell_{12}
391: P_{153446} = (37, 28, 36, 1) lies on line \ell_{11}
                                                                      445: P_{189805} = (44, 20, 45, 1) lies on line \ell_{13}
                                                                      446: P_{189845} = (20, 21, 45, 1) lies on line \ell_{12}
392: P_{153501} = (28, 29, 36, 1) lies on line \ell_{14}
393: P_{153510} = (37, 29, 36, 1) lies on line \ell_{13}
                                                                      447: P_{189869} = (44, 21, 45, 1) lies on line \ell_{11}
394: P_{154013} = (28, 37, 36, 1) lies on line \ell_9
                                                                      448: P_{191317} = (20, 44, 45, 1) lies on line \ell_{10}
395: P_{154014} = (29, 37, 36, 1) lies on line \ell_{10}
                                                                      449: P_{191318} = (21, 44, 45, 1) lies on line \ell_9
396 : P_{157534} = (29, 28, 37, 1) lies on line \ell_{14}
                                                                      450: P_{194008} = (23, 22, 46, 1) lies on line \ell_{12}
397: P_{157541} = (36, 28, 37, 1) lies on line \ell_{13}
                                                                      451: P_{194032} = (47, 22, 46, 1) lies on line \ell_{11}
398: P_{157597} = (28, 29, 37, 1) lies on line \ell_{12}
                                                                      452: P_{194071} = (22, 23, 46, 1) lies on line \ell_{14}
399: P_{157605} = (36, 29, 37, 1) lies on line \ell_{11}
                                                                      453: P_{194096} = (47, 23, 46, 1) lies on line \ell_{13}
400: P_{158045} = (28, 36, 37, 1) lies on line \ell_{10}
                                                                      454: P_{195607} = (22, 47, 46, 1) lies on line \ell_9
401: P_{158046} = (29, 36, 37, 1) lies on line \ell_9
                                                                      455: P_{195608} = (23, 47, 46, 1) lies on line \ell_{10}
402: P_{161760} = (31, 30, 38, 1) lies on line \ell_{12}
                                                                      456: P_{198104} = (23, 22, 47, 1) lies on line \ell_{14}
403: P_{161768} = (39, 30, 38, 1) lies on line \ell_{11}
                                                                      457: P_{198127} = (46, 22, 47, 1) lies on line \ell_{13}
404: P_{161823} = (30, 31, 38, 1) lies on line \ell_{14}
                                                                      458: P_{198167} = (22, 23, 47, 1) lies on line \ell_{12}
405: P_{161832} = (39, 31, 38, 1) lies on line \ell_{13}
                                                                      459: P_{198191} = (46, 23, 47, 1) lies on line \ell_{11}
406: P_{162335} = (30, 39, 38, 1) lies on line \ell_9
                                                                      460: P_{199639} = (22, 46, 47, 1) lies on line \ell_{10}
407: P_{162336} = (31, 39, 38, 1) lies on line \ell_{10}
                                                                      461: P_{199640} = (23, 46, 47, 1) lies on line \ell_9
408: P_{165856} = (31, 30, 39, 1) lies on line \ell_{14}
                                                                      462: P_{201290} = (9, 8, 48, 1) lies on line \ell_{12}
                                                                      463: P_{201330} = (49, 8, 48, 1) lies on line \ell_{11}
409: P_{165863} = (38, 30, 39, 1) lies on line \ell_{13}
410: P_{165919} = (30, 31, 39, 1) lies on line \ell_{12}
                                                                      464: P_{201353} = (8, 9, 48, 1) lies on line \ell_{14}
411: P_{165927} = (38, 31, 39, 1) lies on line \ell_{11}
                                                                      465: P_{201394} = (49, 9, 48, 1) lies on line \ell_{13}
412: P_{166367} = (30, 38, 39, 1) lies on line \ell_{10}
                                                                      466: P_{203913} = (8, 49, 48, 1) lies on line \ell_9
413: P_{166368} = (31, 38, 39, 1) lies on line \ell_9
                                                                      467: P_{203914} = (9, 49, 48, 1) lies on line \ell_{10}
414: P_{169042} = (17, 16, 40, 1) lies on line \ell_{12}
                                                                      468: P_{205386} = (9, 8, 49, 1) lies on line \ell_{14}
415: P_{169066} = (41, 16, 40, 1) lies on line \ell_{11}
                                                                      469: P_{205425} = (48, 8, 49, 1) lies on line \ell_{13}
416: P_{169105} = (16, 17, 40, 1) lies on line \ell_{14}
                                                                      470: P_{205449} = (8, 9, 49, 1) lies on line \ell_{12}
417: P_{169130} = (41, 17, 40, 1) lies on line \ell_{13}
                                                                      471: P_{205489} = (48, 9, 49, 1) lies on line \ell_{11}
418: P_{170641} = (16, 41, 40, 1) lies on line \ell_9
                                                                      472: P_{207945} = (8, 48, 49, 1) lies on line \ell_{10}
419: P_{170642} = (17, 41, 40, 1) lies on line \ell_{10}
                                                                      473: P_{207946} = (9, 48, 49, 1) lies on line \ell_9
420: P_{173138} = (17, 16, 41, 1) lies on line \ell_{14}
                                                                      474: P_{209612} = (11, 10, 50, 1) lies on line \ell_{12}
421: P_{173161} = (40, 16, 41, 1) lies on line \ell_{13}
                                                                      475: P_{209652} = (51, 10, 50, 1) lies on line \ell_{11}
422: P_{173201} = (16, 17, 41, 1) lies on line \ell_{12}
                                                                      476: P_{209675} = (10, 11, 50, 1) lies on line \ell_{14}
                                                                      477: P_{209716} = (51, 11, 50, 1) lies on line \ell_{13}
423: P_{173225} = (40, 17, 41, 1) lies on line \ell_{11}
424: P_{174673} = (16, 40, 41, 1) lies on line \ell_{10}
                                                                      478: P_{212235} = (10, 51, 50, 1) lies on line \ell_9
425: P_{174674} = (17, 40, 41, 1) lies on line \ell_9
                                                                      479: P_{212236} = (11, 51, 50, 1) lies on line \ell_{10}
426: P_{177364} = (19, 18, 42, 1) lies on line \ell_{12}
                                                                      480: P_{213708} = (11, 10, 51, 1) lies on line \ell_{14}
427: P_{177388} = (43, 18, 42, 1) lies on line \ell_{11}
                                                                      481: P_{213747} = (50, 10, 51, 1) lies on line \ell_{13}
                                                                      482 : P_{213771} = (10, 11, 51, 1) lies on line \ell_{12}
428: P_{177427} = (18, 19, 42, 1) lies on line \ell_{14}
429: P_{177452} = (43, 19, 42, 1) lies on line \ell_{13}
                                                                      483: P_{213811} = (50, 11, 51, 1) lies on line \ell_{11}
430: P_{178963} = (18, 43, 42, 1) lies on line \ell_9
                                                                      484: P_{216267} = (10, 50, 51, 1) lies on line \ell_{10}
431: P_{178964} = (19, 43, 42, 1) lies on line \ell_{10}
                                                                      485: P_{216268} = (11, 50, 51, 1) lies on line \ell_9
432 : P_{181460} = (19, 18, 43, 1) lies on line \ell_{14}
                                                                      486: P_{217934} = (13, 12, 52, 1) lies on line \ell_{12}
433: P_{181483} = (42, 18, 43, 1) lies on line \ell_{13}
                                                                      487: P_{217974} = (53, 12, 52, 1) lies on line \ell_{11}
434: P_{181523} = (18, 19, 43, 1) lies on line \ell_{12}
                                                                      488: P_{217997} = (12, 13, 52, 1) lies on line \ell_{14}
435: P_{181547} = (42, 19, 43, 1) lies on line \ell_{11}
                                                                      489: P_{218038} = (53, 13, 52, 1) lies on line \ell_{13}
436: P_{182995} = (18, 42, 43, 1) lies on line \ell_{10}
                                                                      490: P_{220557} = (12, 53, 52, 1) lies on line \ell_9
437: P_{182996} = (19, 42, 43, 1) lies on line \ell_9
                                                                      491: P_{220558} = (13, 53, 52, 1) lies on line \ell_{10}
438: P_{185686} = (21, 20, 44, 1) lies on line \ell_{12}
                                                                      492: P_{222030} = (13, 12, 53, 1) lies on line \ell_{14}
439: P_{185710} = (45, 20, 44, 1) lies on line \ell_{11}
                                                                      493: P_{222069} = (52, 12, 53, 1) lies on line \ell_{13}
440: P_{185749} = (20, 21, 44, 1) lies on line \ell_{14}
                                                                      494: P_{222093} = (12, 13, 53, 1) lies on line \ell_{12}
441: P_{185774} = (45, 21, 44, 1) lies on line \ell_{13}
                                                                      495: P_{222133} = (52, 13, 53, 1) lies on line \ell_{11}
442: P_{187285} = (20, 45, 44, 1) lies on line \ell_9
                                                                      496: P_{224589} = (12, 52, 53, 1) lies on line \ell_{10}
443: P_{187286} = (21, 45, 44, 1) lies on line \ell_{10}
                                                                      497: P_{224590} = (13, 52, 53, 1) lies on line \ell_9
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498: P_{226256} = (15, 14, 54, 1) lies on line \ell_{12}
                                                                     552: P_{233581} = (44, 0, 56, 1) lies on line \ell_1
499: P_{226296} = (55, 14, 54, 1) lies on line \ell_{11}
                                                                     553: P_{233582} = (45, 0, 56, 1) lies on line \ell_1
                                                                     554 : P_{233583} = (46, 0, 56, 1) lies on line \ell_1
500: P_{226319} = (14, 15, 54, 1) lies on line \ell_{14}
501: P_{226360} = (55, 15, 54, 1) lies on line \ell_{13}
                                                                     555: P_{233584} = (47, 0, 56, 1) lies on line \ell_1
                                                                     556: P_{233585} = (48, 0, 56, 1) lies on line \ell_1
502: P_{228879} = (14, 55, 54, 1) lies on line \ell_9
                                                                     557: P_{233586} = (49, 0, 56, 1) lies on line \ell_1
503: P_{228880} = (15, 55, 54, 1) lies on line \ell_{10}
504: P_{230352} = (15, 14, 55, 1) lies on line \ell_{14}
                                                                     558: P_{233587} = (50, 0, 56, 1) lies on line \ell_1
505: P_{230391} = (54, 14, 55, 1) lies on line \ell_{13}
                                                                     559: P_{233588} = (51, 0, 56, 1) lies on line \ell_1
506: P_{230415} = (14, 15, 55, 1) lies on line \ell_{12}
                                                                     560: P_{233589} = (52, 0, 56, 1) lies on line \ell_1
507: P_{230455} = (54, 15, 55, 1) lies on line \ell_{11}
                                                                     561: P_{233590} = (53, 0, 56, 1) lies on line \ell_1
508: P_{232911} = (14, 54, 55, 1) lies on line \ell_{10}
                                                                     562: P_{233591} = (54, 0, 56, 1) lies on line \ell_1
509: P_{232912} = (15, 54, 55, 1) lies on line \ell_9
                                                                     563: P_{233592} = (55, 0, 56, 1) lies on line \ell_1
510: P_{233539} = (2, 0, 56, 1) lies on line \ell_1
                                                                     564: P_{233595} = (58, 0, 56, 1) lies on line \ell_1
511: P_{233540} = (3, 0, 56, 1) lies on line \ell_1
                                                                     565: P_{233596} = (59, 0, 56, 1) lies on line \ell_1
512: P_{233541} = (4, 0, 56, 1) lies on line \ell_1
                                                                     566: P_{233597} = (60, 0, 56, 1) lies on line \ell_1
513: P_{233542} = (5, 0, 56, 1) lies on line \ell_1
                                                                     567: P_{233598} = (61, 0, 56, 1) lies on line \ell_1
514: P_{233543} = (6, 0, 56, 1) lies on line \ell_1
                                                                     568: P_{233599} = (62, 0, 56, 1) lies on line \ell_1
                                                                     569: P_{233600} = (63, 0, 56, 1) lies on line \ell_1
515: P_{233544} = (7, 0, 56, 1) lies on line \ell_1
516: P_{233545} = (8, 0, 56, 1) lies on line \ell_1
                                                                     570: P_{233665} = (0, 2, 56, 1) lies on line \ell_4
517: P_{233546} = (9, 0, 56, 1) lies on line \ell_1
                                                                     571: P_{233723} = (58, 2, 56, 1) lies on line \ell_7
518: P_{233547} = (10, 0, 56, 1) lies on line \ell_1
                                                                     572: P_{233729} = (0, 3, 56, 1) lies on line \ell_4
519: P_{233548} = (11, 0, 56, 1) lies on line \ell_1
                                                                     573: P_{233788} = (59, 3, 56, 1) lies on line \ell_7
520 : P_{233549} = (12, 0, 56, 1) lies on line \ell_1
                                                                     574: P_{233793} = (0, 4, 56, 1) lies on line \ell_4
521 : P_{233550} = (13, 0, 56, 1) lies on line \ell_1
                                                                     575: P_{233853} = (60, 4, 56, 1) lies on line \ell_7
522: P_{233551} = (14, 0, 56, 1) lies on line \ell_1
                                                                     576: P_{233857} = (0, 5, 56, 1) lies on line \ell_4
523: P_{233552} = (15, 0, 56, 1) lies on line \ell_1
                                                                     577: P_{233918} = (61, 5, 56, 1) lies on line \ell_7
524: P_{233553} = (16, 0, 56, 1) lies on line \ell_1
                                                                     578: P_{233921} = (0, 6, 56, 1) lies on line \ell_4
525: P_{233554} = (17, 0, 56, 1) lies on line \ell_1
                                                                     579: P_{233983} = (62, 6, 56, 1) lies on line \ell_7
526: P_{233555} = (18, 0, 56, 1) lies on line \ell_1
                                                                     580: P_{233985} = (0, 7, 56, 1) lies on line \ell_4
527: P_{233556} = (19, 0, 56, 1) lies on line \ell_1
                                                                     581: P_{234048} = (63, 7, 56, 1) lies on line \ell_7
528: P_{233557} = (20, 0, 56, 1) lies on line \ell_1
                                                                     582: P_{234049} = (0, 8, 56, 1) lies on line \ell_4
529: P_{233558} = (21, 0, 56, 1) lies on line \ell_1
                                                                     583: P_{234097} = (48, 8, 56, 1) lies on line \ell_7
530: P_{233559} = (22, 0, 56, 1) lies on line \ell_1
                                                                     584: P_{234113} = (0, 9, 56, 1) lies on line \ell_4
531: P_{233560} = (23, 0, 56, 1) lies on line \ell_1
                                                                     585: P_{234162} = (49, 9, 56, 1) lies on line \ell_7
532: P_{233561} = (24, 0, 56, 1) lies on line \ell_1
                                                                     586: P_{234177} = (0, 10, 56, 1) lies on line \ell_4
533: P_{233562} = (25, 0, 56, 1) lies on line \ell_1
                                                                     587: P_{234227} = (50, 10, 56, 1) lies on line \ell_7
534: P_{233563} = (26, 0, 56, 1) lies on line \ell_1
                                                                     588: P_{234241} = (0, 11, 56, 1) lies on line \ell_4
535: P_{233564} = (27, 0, 56, 1) lies on line \ell_1
                                                                     589 : P_{234292} = (51, 11, 56, 1) lies on line \ell_7
536: P_{233565} = (28, 0, 56, 1) lies on line \ell_1
                                                                     590: P_{234305} = (0, 12, 56, 1) lies on line \ell_4
537: P_{233566} = (29, 0, 56, 1) lies on line \ell_1
                                                                     591 : P_{234357} = (52, 12, 56, 1) lies on line \ell_7
538: P_{233567} = (30, 0, 56, 1) lies on line \ell_1
                                                                     592: P_{234369} = (0, 13, 56, 1) lies on line \ell_4
539: P_{233568} = (31, 0, 56, 1) lies on line \ell_1
                                                                     593: P_{234422} = (53, 13, 56, 1) lies on line \ell_7
540 : P_{233569} = (32, 0, 56, 1) lies on line \ell_1
                                                                     594: P_{234433} = (0, 14, 56, 1) lies on line \ell_4
541: P_{233570} = (33, 0, 56, 1) lies on line \ell_1
                                                                     595: P_{234487} = (54, 14, 56, 1) lies on line \ell_7
542: P_{233571} = (34, 0, 56, 1) lies on line \ell_1
                                                                     596: P_{234497} = (0, 15, 56, 1) lies on line \ell_4
                                                                     597: P_{234552} = (55, 15, 56, 1) lies on line \ell_7
543: P_{233572} = (35, 0, 56, 1) lies on line \ell_1
544: P_{233573} = (36, 0, 56, 1) lies on line \ell_1
                                                                     598: P_{234561} = (0, 16, 56, 1) lies on line \ell_4
545: P_{233574} = (37, 0, 56, 1) lies on line \ell_1
                                                                     599: P_{234601} = (40, 16, 56, 1) lies on line \ell_7
546: P_{233575} = (38, 0, 56, 1) lies on line \ell_1
                                                                     600: P_{234625} = (0, 17, 56, 1) lies on line \ell_4
547: P_{233576} = (39, 0, 56, 1) lies on line \ell_1
                                                                     601: P_{234666} = (41, 17, 56, 1) lies on line \ell_7
548: P_{233577} = (40, 0, 56, 1) lies on line \ell_1
                                                                     602: P_{234689} = (0, 18, 56, 1) lies on line \ell_4
549: P_{233578} = (41, 0, 56, 1) lies on line \ell_1
                                                                     603: P_{234731} = (42, 18, 56, 1) lies on line \ell_7
550: P_{233579} = (42, 0, 56, 1) lies on line \ell_1
                                                                     604: P_{234753} = (0, 19, 56, 1) lies on line \ell_4
551: P_{233580} = (43, 0, 56, 1) lies on line \ell_1
                                                                     605: P_{234796} = (43, 19, 56, 1) lies on line \ell_7
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606: P_{234817} = (0, 20, 56, 1) lies on line \ell_4
                                                                    660: P_{236545} = (0, 47, 56, 1) lies on line \ell_4
607: P_{234861} = (44, 20, 56, 1) lies on line \ell_7
                                                                    661: P_{236568} = (23, 47, 56, 1) lies on line \ell_7
608: P_{234881} = (0, 21, 56, 1) lies on line \ell_4
                                                                    662: P_{236609} = (0, 48, 56, 1) lies on line \ell_4
609: P_{234926} = (45, 21, 56, 1) lies on line \ell_7
                                                                    663: P_{236617} = (8, 48, 56, 1) lies on line \ell_7
                                                                    664: P_{236673} = (0, 49, 56, 1) lies on line \ell_4
610: P_{234945} = (0, 22, 56, 1) lies on line \ell_4
611: P_{234991} = (46, 22, 56, 1) lies on line \ell_7
                                                                    665: P_{236682} = (9, 49, 56, 1) lies on line \ell_7
612: P_{235009} = (0, 23, 56, 1) lies on line \ell_4
                                                                    666: P_{236737} = (0, 50, 56, 1) lies on line \ell_4
613: P_{235056} = (47, 23, 56, 1) lies on line \ell_7
                                                                    667: P_{236747} = (10, 50, 56, 1) lies on line \ell_7
614 : P_{235073} = (0, 24, 56, 1) lies on line \ell_4
                                                                    668: P_{236801} = (0, 51, 56, 1) lies on line \ell_4
615: P_{235105} = (32, 24, 56, 1) lies on line \ell_7
                                                                    669: P_{236812} = (11, 51, 56, 1) lies on line \ell_7
616: P_{235137} = (0, 25, 56, 1) lies on line \ell_4
                                                                    670: P_{236865} = (0, 52, 56, 1) lies on line \ell_4
617: P_{235170} = (33, 25, 56, 1) lies on line \ell_7
                                                                    671: P_{236877} = (12, 52, 56, 1) lies on line \ell_7
618: P_{235201} = (0, 26, 56, 1) lies on line \ell_4
                                                                    672: P_{236929} = (0, 53, 56, 1) lies on line \ell_4
619: P_{235235} = (34, 26, 56, 1) lies on line \ell_7
                                                                    673: P_{236942} = (13, 53, 56, 1) lies on line \ell_7
620: P_{235265} = (0, 27, 56, 1) lies on line \ell_4
                                                                    674: P_{236993} = (0, 54, 56, 1) lies on line \ell_4
621: P_{235300} = (35, 27, 56, 1) lies on line \ell_7
                                                                    675: P_{237007} = (14, 54, 56, 1) lies on line \ell_7
622: P_{235329} = (0, 28, 56, 1) lies on line \ell_4
                                                                    676: P_{237057} = (0, 55, 56, 1) lies on line \ell_4
623: P_{235365} = (36, 28, 56, 1) lies on line \ell_7
                                                                    677: P_{237072} = (15, 55, 56, 1) lies on line \ell_7
624: P_{235393} = (0, 29, 56, 1) lies on line \ell_4
                                                                    678: P_{237249} = (0, 58, 56, 1) lies on line \ell_4
625: P_{235430} = (37, 29, 56, 1) lies on line \ell_7
                                                                    679: P_{237251} = (2, 58, 56, 1) lies on line \ell_7
626: P_{235457} = (0, 30, 56, 1) lies on line \ell_4
                                                                    680: P_{237313} = (0, 59, 56, 1) lies on line \ell_4
627: P_{235495} = (38, 30, 56, 1) lies on line \ell_7
                                                                    681 : P_{237316} = (3, 59, 56, 1) lies on line \ell_7
628: P_{235521} = (0, 31, 56, 1) lies on line \ell_4
                                                                    682: P_{237377} = (0, 60, 56, 1) lies on line \ell_4
                                                                    683 : P_{237381} = (4, 60, 56, 1) lies on line \ell_7
629: P_{235560} = (39, 31, 56, 1) lies on line \ell_7
630: P_{235585} = (0, 32, 56, 1) lies on line \ell_4
                                                                    684: P_{237441} = (0, 61, 56, 1) lies on line \ell_4
631 : P_{235609} = (24, 32, 56, 1) lies on line \ell_7
                                                                    685: P_{237446} = (5, 61, 56, 1) lies on line \ell_7
632: P_{235649} = (0, 33, 56, 1) lies on line \ell_4
                                                                    686: P_{237505} = (0, 62, 56, 1) lies on line \ell_4
633: P_{235674} = (25, 33, 56, 1) lies on line \ell_7
                                                                    687: P_{237511} = (6, 62, 56, 1) lies on line \ell_7
634: P_{235713} = (0, 34, 56, 1) lies on line \ell_4
                                                                    688: P_{237569} = (0, 63, 56, 1) lies on line \ell_4
635: P_{235739} = (26, 34, 56, 1) lies on line \ell_7
                                                                    689: P_{237576} = (7, 63, 56, 1) lies on line \ell_7
636: P_{235777} = (0, 35, 56, 1) lies on line \ell_4
                                                                    690 : P_{237635} = (2, 0, 57, 1) lies on line \ell_2
637: P_{235804} = (27, 35, 56, 1) lies on line \ell_7
                                                                    691: P_{237636} = (3, 0, 57, 1) lies on line \ell_2
638: P_{235841} = (0, 36, 56, 1) lies on line \ell_4
                                                                    692: P_{237637} = (4, 0, 57, 1) lies on line \ell_2
                                                                    693: P_{237638} = (5, 0, 57, 1) lies on line \ell_2
639: P_{235869} = (28, 36, 56, 1) lies on line \ell_7
640: P_{235905} = (0, 37, 56, 1) lies on line \ell_4
                                                                    694: P_{237639} = (6, 0, 57, 1) lies on line \ell_2
                                                                    695 : P_{237640} = (7, 0, 57, 1) lies on line \ell_2
641: P_{235934} = (29, 37, 56, 1) lies on line \ell_7
642: P_{235969} = (0, 38, 56, 1) lies on line \ell_4
                                                                    696: P_{237641} = (8, 0, 57, 1) lies on line \ell_2
643: P_{235999} = (30, 38, 56, 1) lies on line \ell_7
                                                                    697: P_{237642} = (9, 0, 57, 1) lies on line \ell_2
644: P_{236033} = (0, 39, 56, 1) lies on line \ell_4
                                                                    698: P_{237643} = (10, 0, 57, 1) lies on line \ell_2
645: P_{236064} = (31, 39, 56, 1) lies on line \ell_7
                                                                    699: P_{237644} = (11, 0, 57, 1) lies on line \ell_2
646: P_{236097} = (0, 40, 56, 1) lies on line \ell_4
                                                                    700: P_{237645} = (12, 0, 57, 1) lies on line \ell_2
647: P_{236113} = (16, 40, 56, 1) lies on line \ell_7
                                                                    701: P_{237646} = (13, 0, 57, 1) lies on line \ell_2
648 : P_{236161} = (0, 41, 56, 1) lies on line \ell_4
                                                                    702: P_{237647} = (14, 0, 57, 1) lies on line \ell_2
649: P_{236178} = (17, 41, 56, 1) lies on line \ell_7
                                                                    703: P_{237648} = (15, 0, 57, 1) lies on line \ell_2
650: P_{236225} = (0, 42, 56, 1) lies on line \ell_4
                                                                    704: P_{237649} = (16, 0, 57, 1) lies on line \ell_2
651: P_{236243} = (18, 42, 56, 1) lies on line \ell_7
                                                                    705: P_{237650} = (17, 0, 57, 1) lies on line \ell_2
652: P_{236289} = (0, 43, 56, 1) lies on line \ell_4
                                                                    706: P_{237651} = (18, 0, 57, 1) lies on line \ell_2
653: P_{236308} = (19, 43, 56, 1) lies on line \ell_7
                                                                    707: P_{237652} = (19, 0, 57, 1) lies on line \ell_2
654: P_{236353} = (0, 44, 56, 1) lies on line \ell_4
                                                                    708: P_{237653} = (20, 0, 57, 1) lies on line \ell_2
655: P_{236373} = (20, 44, 56, 1) lies on line \ell_7
                                                                    709: P_{237654} = (21, 0, 57, 1) lies on line \ell_2
656: P_{236417} = (0, 45, 56, 1) lies on line \ell_4
                                                                    710: P_{237655} = (22, 0, 57, 1) lies on line \ell_2
657: P_{236438} = (21, 45, 56, 1) lies on line \ell_7
                                                                    711: P_{237656} = (23, 0, 57, 1) lies on line \ell_2
658: P_{236481} = (0, 46, 56, 1) lies on line \ell_4
                                                                    712: P_{237657} = (24, 0, 57, 1) lies on line \ell_2
659: P_{236503} = (22, 46, 56, 1) lies on line \ell_7
                                                                    713: P_{237658} = (25, 0, 57, 1) lies on line \ell_2
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714: P_{237659} = (26, 0, 57, 1) lies on line \ell_2
                                                                     768: P_{238337} = (0, 11, 57, 1) lies on line \ell_5
715: P_{237660} = (27, 0, 57, 1) lies on line \ell_2
                                                                     769 : P_{238387} = (50, 11, 57, 1) lies on line \ell_8
716: P_{237661} = (28, 0, 57, 1) lies on line \ell_2
                                                                     770: P_{238401} = (0, 12, 57, 1) lies on line \ell_5
717: P_{237662} = (29, 0, 57, 1) lies on line \ell_2
                                                                     771: P_{238454} = (53, 12, 57, 1) lies on line \ell_8
718: P_{237663} = (30, 0, 57, 1) lies on line \ell_2
                                                                     772: P_{238465} = (0, 13, 57, 1) lies on line \ell_5
719: P_{237664} = (31, 0, 57, 1) lies on line \ell_2
                                                                     773: P_{238517} = (52, 13, 57, 1) lies on line \ell_8
                                                                     774: P_{238529} = (0, 14, 57, 1) lies on line \ell_5
720: P_{237665} = (32, 0, 57, 1) lies on line \ell_2
721: P_{237666} = (33, 0, 57, 1) lies on line \ell_2
                                                                     775: P_{238584} = (55, 14, 57, 1) lies on line \ell_8
722: P_{237667} = (34, 0, 57, 1) lies on line \ell_2
                                                                     776: P_{238593} = (0, 15, 57, 1) lies on line \ell_5
723: P_{237668} = (35, 0, 57, 1) lies on line \ell_2
                                                                     777: P_{238647} = (54, 15, 57, 1) lies on line \ell_8
724: P_{237669} = (36, 0, 57, 1) lies on line \ell_2
                                                                     778: P_{238657} = (0, 16, 57, 1) lies on line \ell_5
725: P_{237670} = (37, 0, 57, 1) lies on line \ell_2
                                                                     779: P_{238698} = (41, 16, 57, 1) lies on line \ell_8
726: P_{237671} = (38, 0, 57, 1) lies on line \ell_2
                                                                     780: P_{238721} = (0, 17, 57, 1) lies on line \ell_5
727: P_{237672} = (39, 0, 57, 1) lies on line \ell_2
                                                                     781: P_{238761} = (40, 17, 57, 1) lies on line \ell_8
728: P_{237673} = (40, 0, 57, 1) lies on line \ell_2
                                                                     782 : P_{238785} = (0, 18, 57, 1) lies on line \ell_5
729: P_{237674} = (41, 0, 57, 1) lies on line \ell_2
                                                                     783: P_{238828} = (43, 18, 57, 1) lies on line \ell_8
730 : P_{237675} = (42, 0, 57, 1) lies on line \ell_2
                                                                     784 : P_{238849} = (0, 19, 57, 1) lies on line \ell_5
                                                                     785 : P_{238891} = (42, 19, 57, 1) lies on line \ell_8
731: P_{237676} = (43, 0, 57, 1) lies on line \ell_2
                                                                     786 : P_{238913} = (0, 20, 57, 1) lies on line \ell_5
732: P_{237677} = (44, 0, 57, 1) lies on line \ell_2
733: P_{237678} = (45, 0, 57, 1) lies on line \ell_2
                                                                     787: P_{238958} = (45, 20, 57, 1) lies on line \ell_8
734 : P_{237679} = (46, 0, 57, 1) lies on line \ell_2
                                                                     788: P_{238977} = (0, 21, 57, 1) lies on line \ell_5
735 : P_{237680} = (47, 0, 57, 1) lies on line \ell_2
                                                                     789 : P_{239021} = (44, 21, 57, 1) lies on line \ell_8
736: P_{237681} = (48, 0, 57, 1) lies on line \ell_2
                                                                     790: P_{239041} = (0, 22, 57, 1) lies on line \ell_5
737 : P_{237682} = (49, 0, 57, 1) lies on line \ell_2
                                                                     791: P_{239088} = (47, 22, 57, 1) lies on line \ell_8
738: P_{237683} = (50, 0, 57, 1) lies on line \ell_2
                                                                     792: P_{239105} = (0, 23, 57, 1) lies on line \ell_5
                                                                     793 : P_{239151} = (46, 23, 57, 1) lies on line \ell_8
739 : P_{237684} = (51, 0, 57, 1) lies on line \ell_2
740: P_{237685} = (52, 0, 57, 1) lies on line \ell_2
                                                                     794 : P_{239169} = (0, 24, 57, 1) lies on line \ell_5
741 : P_{237686} = (53, 0, 57, 1) lies on line \ell_2
                                                                    795 : P_{239202} = (33, 24, 57, 1) lies on line \ell_8
742: P_{237687} = (54, 0, 57, 1) lies on line \ell_2
                                                                     796: P_{239233} = (0, 25, 57, 1) lies on line \ell_5
743: P_{237688} = (55, 0, 57, 1) lies on line \ell_2
                                                                     797: P_{239265} = (32, 25, 57, 1) lies on line \ell_8
744: P_{237691} = (58, 0, 57, 1) lies on line \ell_2
                                                                     798: P_{239297} = (0, 26, 57, 1) lies on line \ell_5
745 : P_{237692} = (59, 0, 57, 1) lies on line \ell_2
                                                                     799: P_{239332} = (35, 26, 57, 1) lies on line \ell_8
746: P_{237693} = (60, 0, 57, 1) lies on line \ell_2
                                                                     800: P_{239361} = (0, 27, 57, 1) lies on line \ell_5
747: P_{237694} = (61, 0, 57, 1) lies on line \ell_2
                                                                    801 : P_{239395} = (34, 27, 57, 1) lies on line \ell_8
748: P_{237695} = (62, 0, 57, 1) lies on line \ell_2
                                                                    802: P_{239425} = (0, 28, 57, 1) lies on line \ell_5
749 : P_{237696} = (63, 0, 57, 1) lies on line \ell_2
                                                                    803: P_{239462} = (37, 28, 57, 1) lies on line \ell_8
750: P_{237761} = (0, 2, 57, 1) lies on line \ell_5
                                                                    804: P_{239489} = (0, 29, 57, 1) lies on line \ell_5
751 : P_{237820} = (59, 2, 57, 1) lies on line \ell_8
                                                                     805: P_{239525} = (36, 29, 57, 1) lies on line \ell_8
752: P_{237825} = (0, 3, 57, 1) lies on line \ell_5
                                                                    806: P_{239553} = (0, 30, 57, 1) lies on line \ell_5
753 : P_{237883} = (58, 3, 57, 1) lies on line \ell_8
                                                                    807 : P_{239592} = (39, 30, 57, 1) lies on line \ell_8
754: P_{237889} = (0, 4, 57, 1) lies on line \ell_5
                                                                    808: P_{239617} = (0, 31, 57, 1) lies on line \ell_5
755: P_{237950} = (61, 4, 57, 1) lies on line \ell_8
                                                                    809: P_{239655} = (38, 31, 57, 1) lies on line \ell_8
756 : P_{237953} = (0, 5, 57, 1) lies on line \ell_5
                                                                    810: P_{239681} = (0, 32, 57, 1) lies on line \ell_5
757: P_{238013} = (60, 5, 57, 1) lies on line \ell_8
                                                                    811: P_{239706} = (25, 32, 57, 1) lies on line \ell_8
758: P_{238017} = (0, 6, 57, 1) lies on line \ell_5
                                                                    812: P_{239745} = (0, 33, 57, 1) lies on line \ell_5
759 : P_{238080} = (63, 6, 57, 1) lies on line \ell_8
                                                                    813: P_{239769} = (24, 33, 57, 1) lies on line \ell_8
760: P_{238081} = (0, 7, 57, 1) lies on line \ell_5
                                                                    814: P_{239809} = (0, 34, 57, 1) lies on line \ell_5
761: P_{238143} = (62, 7, 57, 1) lies on line \ell_8
                                                                    815: P_{239836} = (27, 34, 57, 1) lies on line \ell_8
762: P_{238145} = (0, 8, 57, 1) lies on line \ell_5
                                                                    816: P_{239873} = (0, 35, 57, 1) lies on line \ell_5
                                                                    817: P_{239899} = (26, 35, 57, 1) lies on line \ell_8
763: P_{238194} = (49, 8, 57, 1) lies on line \ell_8
764: P_{238209} = (0, 9, 57, 1) lies on line \ell_5
                                                                    818: P_{239937} = (0, 36, 57, 1) lies on line \ell_5
765: P_{238257} = (48, 9, 57, 1) lies on line \ell_8
                                                                    819: P_{239966} = (29, 36, 57, 1) lies on line \ell_8
766 : P_{238273} = (0, 10, 57, 1) lies on line \ell_5
                                                                     820: P_{240001} = (0, 37, 57, 1) lies on line \ell_5
767: P_{238324} = (51, 10, 57, 1) lies on line \ell_8
                                                                    821: P_{240029} = (28, 37, 57, 1) lies on line \ell_8
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822 : P_{240065} = (0, 38, 57, 1) lies on line \ell_5
                                                                     865: P_{241541} = (4, 61, 57, 1) lies on line \ell_8
823: P_{240096} = (31, 38, 57, 1) lies on line \ell_8
                                                                     866: P_{241601} = (0, 62, 57, 1) lies on line \ell_5
824: P_{240129} = (0, 39, 57, 1) lies on line \ell_5
                                                                     867: P_{241608} = (7,62,57,1) lies on line \ell_8
825: P_{240159} = (30, 39, 57, 1) lies on line \ell_8
                                                                     868: P_{241665} = (0, 63, 57, 1) lies on line \ell_5
826: P_{240193} = (0, 40, 57, 1) lies on line \ell_5
                                                                     869: P_{241671} = (6, 63, 57, 1) lies on line \ell_8
827: P_{240210} = (17, 40, 57, 1) lies on line \ell_8
                                                                     870 : P_{241860} = (3, 2, 58, 1) lies on line \ell_{12}
828: P_{240257} = (0, 41, 57, 1) lies on line \ell_5
                                                                     871: P_{241916} = (59, 2, 58, 1) lies on line \ell_{11}
829: P_{240273} = (16, 41, 57, 1) lies on line \ell_8
                                                                     872: P_{241923} = (2, 3, 58, 1) lies on line \ell_{14}
830: P_{240321} = (0, 42, 57, 1) lies on line \ell_5
                                                                     873: P_{241980} = (59, 3, 58, 1) lies on line \ell_{13}
831: P_{240340} = (19, 42, 57, 1) lies on line \ell_8
                                                                     874: P_{245507} = (2, 59, 58, 1) lies on line \ell_9
832: P_{240385} = (0, 43, 57, 1) lies on line \ell_5
                                                                     875: P_{245508} = (3, 59, 58, 1) lies on line \ell_{10}
833: P_{240403} = (18, 43, 57, 1) lies on line \ell_8
                                                                     876: P_{245956} = (3, 2, 59, 1) lies on line \ell_{14}
834 : P_{240449} = (0, 44, 57, 1) lies on line \ell_5
                                                                     877: P_{246011} = (58, 2, 59, 1) lies on line \ell_{13}
835: P_{240470} = (21, 44, 57, 1) lies on line \ell_8
                                                                     878: P_{246019} = (2, 3, 59, 1) lies on line \ell_{12}
836: P_{240513} = (0, 45, 57, 1) lies on line \ell_5
                                                                     879: P_{246075} = (58, 3, 59, 1) lies on line \ell_{11}
837: P_{240533} = (20, 45, 57, 1) lies on line \ell_8
                                                                     880: P_{249539} = (2, 58, 59, 1) lies on line \ell_{10}
838 : P_{240577} = (0, 46, 57, 1) lies on line \ell_5
                                                                     881: P_{249540} = (3, 58, 59, 1) lies on line \ell_9
839: P_{240600} = (23, 46, 57, 1) lies on line \ell_8
                                                                     882: P_{250182} = (5, 4, 60, 1) lies on line \ell_{12}
840: P_{240641} = (0, 47, 57, 1) lies on line \ell_5
                                                                     883: P_{250238} = (61, 4, 60, 1) lies on line \ell_{11}
                                                                     884: P_{250245} = (4, 5, 60, 1) lies on line \ell_{14}
841: P_{240663} = (22, 47, 57, 1) lies on line \ell_8
842 : P_{240705} = (0, 48, 57, 1) lies on line \ell_5
                                                                     885: P_{250302} = (61, 5, 60, 1) lies on line \ell_{13}
843: P_{240714} = (9, 48, 57, 1) lies on line \ell_8
                                                                     886: P_{253829} = (4, 61, 60, 1) lies on line \ell_9
                                                                     887: P_{253830} = (5, 61, 60, 1) lies on line \ell_{10}
844: P_{240769} = (0, 49, 57, 1) lies on line \ell_5
845 : P_{240777} = (8, 49, 57, 1) lies on line \ell_8
                                                                     888: P_{254278} = (5, 4, 61, 1) lies on line \ell_{14}
846: P_{240833} = (0, 50, 57, 1) lies on line \ell_5
                                                                     889: P_{254333} = (60, 4, 61, 1) lies on line \ell_{13}
847: P_{240844} = (11, 50, 57, 1) lies on line \ell_8
                                                                     890: P_{254341} = (4, 5, 61, 1) lies on line \ell_{12}
848: P_{240897} = (0, 51, 57, 1) lies on line \ell_5
                                                                     891: P_{254397} = (60, 5, 61, 1) lies on line \ell_{11}
849: P_{240907} = (10, 51, 57, 1) lies on line \ell_8
                                                                     892: P_{257861} = (4, 60, 61, 1) lies on line \ell_{10}
850: P_{240961} = (0, 52, 57, 1) lies on line \ell_5
                                                                     893: P_{257862} = (5, 60, 61, 1) lies on line \ell_9
851: P_{240974} = (13, 52, 57, 1) lies on line \ell_8
                                                                     894: P_{258504} = (7, 6, 62, 1) lies on line \ell_{12}
852: P_{241025} = (0, 53, 57, 1) lies on line \ell_5
                                                                     895: P_{258560} = (63, 6, 62, 1) lies on line \ell_{11}
853: P_{241037} = (12, 53, 57, 1) lies on line \ell_8
                                                                     896: P_{258567} = (6, 7, 62, 1) lies on line \ell_{14}
854: P_{241089} = (0, 54, 57, 1) lies on line \ell_5
                                                                     897: P_{258624} = (63, 7, 62, 1) lies on line \ell_{13}
855: P_{241104} = (15, 54, 57, 1) lies on line \ell_8
                                                                     898: P_{262151} = (6, 63, 62, 1) lies on line \ell_9
856: P_{241153} = (0, 55, 57, 1) lies on line \ell_5
                                                                     899: P_{262152} = (7, 63, 62, 1) lies on line \ell_{10}
                                                                     900 : P_{262600} = (7, 6, 63, 1) lies on line \ell_{14}
857: P_{241167} = (14, 55, 57, 1) lies on line \ell_8
858: P_{241345} = (0, 58, 57, 1) lies on line \ell_5
                                                                     901: P_{262655} = (62, 6, 63, 1) lies on line \ell_{13}
859: P_{241348} = (3, 58, 57, 1) lies on line \ell_8
                                                                     902: P_{262663} = (6, 7, 63, 1) lies on line \ell_{12}
860: P_{241409} = (0, 59, 57, 1) lies on line \ell_5
                                                                     903: P_{262719} = (62, 7, 63, 1) lies on line \ell_{11}
                                                                     904: P_{266183} = (6, 62, 63, 1) lies on line \ell_{10}
861: P_{241411} = (2, 59, 57, 1) lies on line \ell_8
862 : P_{241473} = (0, 60, 57, 1) lies on line \ell_5
                                                                     905: P_{266184} = (7, 62, 63, 1) lies on line \ell_9
863: P_{241478} = (5, 60, 57, 1) lies on line \ell_8
864 : P_{241537} = (0, 61, 57, 1) lies on line \ell_5
```

The single points on the surface are:

Points on surface but on no line

The surface has 3480 points not on any line: Too many to print.

Line Intersection Graph

	0123456789	10	11	12	13	14
0	0111001001	1	0	0	0	0
1	1010100100	0	1	1	0	0
2	1100010010	0	0	0	1	1
3	1000111000	0	1	0	1	0
4	0101010101	0	0	0	0	1
5	0011100010	1	0	1	0	0
6	1001000110	0	0	1	0	1
7	0100101010	1	0	0	1	0
8	0010011101	0	1	0	0	0
9	1000100010	1	1	1	1	1
10	1000010101	0	1	1	1	1
11	0101000011	1	0	1	1	1
12	0100011001	1	1	0	1	1
13	0011000101	1	1	1	0	1
14	0010101001	1	1	1	1	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_6	ℓ_9	ℓ_{10}
in point	P_0	P_0	P_{8258}	P_{8259}	P_{8315}	P_{8314}

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_4	ℓ_7	ℓ_{11}	ℓ_{12}
in point	P_0	P_0	P_{233537}	P_{233593}	P_{233594}	P_{233538}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_5	ℓ_8	ℓ_{13}	ℓ_{14}
in point	P_0	P_0	P_{237633}	P_{237690}	P_{237689}	P_{237634}

Line 3 intersects

Line	ℓ_0	ℓ_4	ℓ_5	ℓ_6	ℓ_{11}	ℓ_{13}
in point	P_{8258}	P_1	P_1	P_{8322}	P_{11905}	P_{11841}

Line 4 intersects

Line	ℓ_1	ℓ_3	ℓ_5	ℓ_7	ℓ_9	ℓ_{14}
in point	P_{233537}	P_1	P_1	P_{237121}	P_{237185}	P_{233601}

 ${\bf Line~5~intersects}$

Line	ℓ_2	ℓ_3	ℓ_4	ℓ_8	ℓ_{10}	ℓ_{12}
in point	P_{237633}	P_1	P_1	P_{241281}	P_{241217}	P_{237697}

Line 6 intersects

Line	ℓ_0	ℓ_3	ℓ_7	ℓ_8	ℓ_{12}	ℓ_{14}
in point	P_{8259}	P_{8322}	P_5	P_5	P_{11961}	P_{11898}

Line 7 intersects

Line	ℓ_1	ℓ_4	ℓ_6	ℓ_8	ℓ_{10}	ℓ_{13}
in point	P_{233593}	P_{237121}	P_5	P_5	P_{237186}	P_{233658}

Line 8 intersects

Line	ℓ_2	ℓ_5	ℓ_6	ℓ_7	ℓ_9	ℓ_{11}
in point	P_{237690}	P_{241281}	P_5	P_5	P_{241218}	P_{237753}

 ${\bf Line~9~intersects}$

Line	ℓ_0	ℓ_4	ℓ_8	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}
in point	P_{8315}	P_{237185}	P_{241218}	P_{132}	P_{132}	P_{132}	P_{132}	P_{132}

Line 10 intersects

Line	ℓ_0	ℓ_5	ℓ_7	ℓ_9	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}
in point	P_{8314}	P_{241217}	P_{237186}	P_{132}	P_{132}	P_{132}	P_{132}	P_{132}

Line 11 intersects

Line	ℓ_1	ℓ_3	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{12}	ℓ_{13}	ℓ_{14}
in point	P_{233594}	P_{11905}	P_{237753}	P_{132}	P_{132}	P_{132}	P_{132}	P_{132}

${\bf Line~12~intersects}$

Line	ℓ_1	ℓ_5	ℓ_6	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{13}	ℓ_{14}
in point	P_{233538}	P_{237697}	P_{11961}	P_{132}	P_{132}	P_{132}	P_{132}	P_{132}

 ${\rm Line}\ 13\ {\rm intersects}$

Line	ℓ_2	ℓ_3	ℓ_7	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{14}
in point	P_{237689}	P_{11841}	P_{233658}	P_{132}	P_{132}	P_{132}	P_{132}	P_{132}

${\bf Line~14~intersects}$

Line	ℓ_2	ℓ_4	ℓ_6	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}
in point	P_{237634}	P_{233601}	P_{11898}	P_{132}	P_{132}	P_{132}	P_{132}	P_{132}

The surface has 4417 points:

Too many to print.