# Rank-65550 over GF(64)

January 15, 2021

## The equation

The equation of the surface is:

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

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

The point rank of the equation over GF(64) is 1091047558

### 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:

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

### The 15 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{270400} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{270400} = \mathbf{Pl}(0, 1, 1, 0, 0, 0)_{66}$$

$$\ell_1 = \begin{bmatrix} 1 & 0 & 0 & \epsilon^{21} \\ 0 & 0 & 1 & 0 \end{bmatrix}_{15183424} = \begin{bmatrix} 1 & 0 & 0 & 57 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{15183424} = \mathbf{Pl}(0, 57, 1, 0, 0, 0)_{122}$$

$$\ell_2 = \begin{bmatrix} 1 & 0 & 0 & \epsilon^{42} \\ 0 & 0 & 1 & 0 \end{bmatrix}_{14917120} = \begin{bmatrix} 1 & 0 & 0 & 56 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{14917120} = \mathbf{Pl}(0,56,1,0,0,0)_{121}$$

$$\ell_3 = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17043521} = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17043521} = \mathbf{Pl}(0,1,0,0,0,1)_{270465}$$

$$\ell_4 = \begin{bmatrix} 0 & 1 & 0 & \epsilon^{21} \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17047161} = \begin{bmatrix} 0 & 1 & 0 & 57 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17047361} = \mathbf{Pl}(0,57,0,0,0,1)_{270521}$$

$$\ell_5 = \begin{bmatrix} 0 & 1 & 0 & \epsilon^{42} \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17047096} = \begin{bmatrix} 0 & 1 & 0 & 56 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{17047096} = \mathbf{Pl}(0,56,0,0,1)_{270520}$$

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

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

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

$$\ell_9 = \begin{bmatrix} 1 & 0 & \epsilon^{42} & \epsilon^{42} \\ 0 & 1 & \epsilon^{21} & \epsilon^{21} \end{bmatrix}_{1514745} = \begin{bmatrix} 1 & 0 & 56 & 56 \\ 0 & 1 & 57 & 57 \end{bmatrix}_{1514745} = \mathbf{Pl}(56,0,1,1,56,1)_{14959034}$$

$$\ell_{11} = \begin{bmatrix} 1 & 0 & \epsilon^{42} & \epsilon^{21} \\ 0 & 1 & \epsilon^{21} & 1 \end{bmatrix}_{15412465} = \begin{bmatrix} 1 & 0 & 56 & 57 \\ 0 & 1 & 57 & 1 \end{bmatrix}_{15412465} = \mathbf{Pl}(57,0,56,57,1)_{15228171}$$

$$\ell_{12} = \begin{bmatrix} 1 & 0 & \epsilon^{21} & \epsilon^{21} \\ 0 & 1 & \epsilon^{21} & \epsilon^{21} \end{bmatrix}_{15420145} = \begin{bmatrix} 1 & 0 & 57 & 57 \\ 0 & 1 & 56 & 56 \end{bmatrix}_{15420145} = \mathbf{Pl}(57,0,1,1,57,1)_{15221115}$$

$$\ell_{13} = \begin{bmatrix} 1 & 0 & \epsilon^{21} & \epsilon^{21} \\ 0 & 1 & \epsilon^{42} & \epsilon^{42} \end{bmatrix}_{15150321} = \begin{bmatrix} 1 & 0 & 57 & 56 \\ 0 & 1 & 56 & 57 \end{bmatrix}_{15150321} = \mathbf{Pl}(56,0,57,56,1,1)_{15221115}$$

$$\ell_{14} = \begin{bmatrix} 1 & 0 & \epsilon^{21} & \epsilon^{42} \\ 0 & 1 & \epsilon^{42} & \epsilon^{42} \end{bmatrix}_{15150321} = \begin{bmatrix} 1 & 0 & 57 & 56 \\ 0 & 1 & 56 & 57 \end{bmatrix}_{507185} = \mathbf{Pl}(56,0,57,56,1,1)_{551746}$$

 $Rank\ of\ lines:\ (\ 270400,\ 15183424,\ 14917120,\ 17043521,\ 17047161,\ 17047096,\ 270530,\ 15187138,\ 14920770,\ 17047161,\ 17047096,\ 170$ 15149745, 502961, 15412465, 15420145, 15150321, 507185)

Rank of points on Klein quadric: (66, 122, 121, 270465, 270521, 270520, 544579, 15228099, 14966147, 14959034, 551620, 15228171, 15221115, 14965964, 551746)

### **Eckardt Points**

The surface has 3 Eckardt points:

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

1:  $P_{60} = \mathbf{P}(\epsilon^{42}, 1, 0, 0) = \mathbf{P}(56, 1, 0, 0),$ 2:  $P_{61} = \mathbf{P}(\epsilon^{21}, 1, 0, 0) = \mathbf{P}(57, 1, 0, 0).$ 

### **Double Points**

The surface has 27 Double points:

The double points on the surface are:

$P_{8259} = (1,0,1,1) = \ell_0 \cap \ell_6$
$P_{233538} = (1, 0, 56, 1) = \ell_0 \cap \ell_{10}$
$P_{237634} = (1, 0, 57, 1) = \ell_0 \cap \ell_{14}$
$P_{233593} = (56, 0, 56, 1) = \ell_1 \cap \ell_7$
$P_{237689} = (56, 0, 57, 1) = \ell_1 \cap \ell_{11}$
$P_{8314} = (56, 0, 1, 1) = \ell_1 \cap \ell_{12}$
$P_{237690} = (57, 0, 57, 1) = \ell_2 \cap \ell_8$
$P_{8315} = (57, 0, 1, 1) = \ell_2 \cap \ell_9$
$P_{233594} = (57, 0, 56, 1) = \ell_2 \cap \ell_{13}$
$P_{8322} = (0, 1, 1, 1) = \ell_3 \cap \ell_6$
$P_{237697} = (0, 1, 57, 1) = \ell_3 \cap \ell_{11}$
$P_{233601} = (0, 1, 56, 1) = \ell_3 \cap \ell_{13}$
$P_{237121} = (0, 56, 56, 1) = \ell_4 \cap \ell_7$
$P_{11841} = (0, 56, 1, 1) = \ell_4 \cap \ell_9$

# $$\begin{split} P_{241217} &= (0,56,57,1) = \ell_4 \cap \ell_{14} \\ P_{241281} &= (0,57,57,1) = \ell_5 \cap \ell_8 \\ P_{237185} &= (0,57,56,1) = \ell_5 \cap \ell_{10} \\ P_{11905} &= (0,57,1,1) = \ell_5 \cap \ell_{12} \\ P_{11961} &= (56,57,1,1) = \ell_6 \cap \ell_9 \\ P_{11898} &= (57,56,1,1) = \ell_6 \cap \ell_{12} \\ P_{233658} &= (57,1,56,1) = \ell_7 \cap \ell_{10} \\ P_{237186} &= (1,57,56,1) = \ell_7 \cap \ell_{13} \\ P_{241218} &= (1,56,57,1) = \ell_8 \cap \ell_{11} \\ P_{237753} &= (56,1,57,1) = \ell_8 \cap \ell_{14} \\ P_4 &= (1,1,1,1) = \ell_9 \cap \ell_{12} \\ P_{237177} &= (56,56,56,1) = \ell_{10} \cap \ell_{13} \\ P_{241338} &= (57,57,57,1) = \ell_{11} \cap \ell_{14} \end{split}$$

### Single Points

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

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0: P_{4163} = (1,0,0,1) lies on line \ell_0
                                                                      33: P_{8971} = (10, 11, 1, 1) lies on line \ell_6
1 : P_{4218} = (56, 0, 0, 1) lies on line \ell_1
                                                                      34: P_{9014} = (53, 11, 1, 1) lies on line \ell_9
2: P_{4219} = (57, 0, 0, 1) lies on line \ell_2
                                                                      35: P_{9024} = (63, 11, 1, 1) lies on line \ell_{12}
3: P_{4226} = (0, 1, 0, 1) lies on line \ell_3
                                                                      36: P_{9038} = (13, 12, 1, 1) lies on line \ell_6
4: P_{7746} = (0, 56, 0, 1) lies on line \ell_4
                                                                      37: P_{9076} = (51, 12, 1, 1) lies on line \ell_{12}
5: P_{7810} = (0, 57, 0, 1) lies on line \ell_5
                                                                      38: P_{9087} = (62, 12, 1, 1) lies on line \ell_9
6: P_{8388} = (3, 2, 1, 1) lies on line \ell_6
                                                                      39: P_{9095} = (6, 13, 1, 1) lies on line \ell_9
7: P_{8425} = (40, 2, 1, 1) lies on line \ell_9
                                                                      40: P_{9099} = (10, 13, 1, 1) lies on line \ell_{12}
8: P_{8428} = (43, 2, 1, 1) lies on line \ell_{12}
                                                                      41: P_{9101} = (12, 13, 1, 1) lies on line \ell_6
9: P_{8451} = (2, 3, 1, 1) lies on line \ell_6
                                                                      42: P_{9168} = (15, 14, 1, 1) lies on line \ell_6
10: P_{8465} = (16, 3, 1, 1) lies on line \ell_9
                                                                      43: P_{9185} = (32, 14, 1, 1) lies on line \ell_{12}
11: P_{8467} = (18, 3, 1, 1) lies on line \ell_{12}
                                                                      44: P_{9200} = (47, 14, 1, 1) lies on line \ell_9
12: P_{8518} = (5, 4, 1, 1) lies on line \ell_6
                                                                      45: P_{9231} = (14, 15, 1, 1) lies on line \ell_6
13: P_{8540} = (27, 4, 1, 1) lies on line \ell_9
                                                                      46: P_{9240} = (23, 15, 1, 1) lies on line \ell_9
                                                                      47: P_{9242} = (25, 15, 1, 1) lies on line \ell_{12}
14: P_{8543} = (30, 4, 1, 1) lies on line \ell_{12}
15: P_{8581} = (4, 5, 1, 1) lies on line \ell_6
                                                                      48: P_{9284} = (3, 16, 1, 1) lies on line \ell_{12}
16: P_{8612} = (35, 5, 1, 1) lies on line \ell_9
                                                                      49: P_{9298} = (17, 16, 1, 1) lies on line \ell_6
17: P_{8616} = (39, 5, 1, 1) lies on line \ell_{12}
                                                                      50: P_{9299} = (18, 16, 1, 1) lies on line \ell_9
18: P_{8648} = (7,6,1,1) lies on line \ell_6
                                                                      51: P_{9361} = (16, 17, 1, 1) lies on line \ell_6
                                                                      52: P_{9387} = (42, 17, 1, 1) lies on line \ell_9
19: P_{8651} = (10, 6, 1, 1) lies on line \ell_9
20: P_{8654} = (13, 6, 1, 1) lies on line \ell_{12}
                                                                      53: P_{9403} = (58, 17, 1, 1) lies on line \ell_{12}
21: P_{8711} = (6,7,1,1) lies on line \ell_6
                                                                      54: P_{9412} = (3, 18, 1, 1) lies on line \ell_9
                                                                      55 : P_{9425} = (16, 18, 1, 1) lies on line \ell_{12}
22: P_{8755} = (50, 7, 1, 1) lies on line \ell_9
23: P_{8757} = (52, 7, 1, 1) lies on line \ell_{12}
                                                                      56: P_{9428} = (19, 18, 1, 1) lies on line \ell_6
24: P_{8778} = (9, 8, 1, 1) lies on line \ell_6
                                                                      57: P_{9491} = (18, 19, 1, 1) lies on line \ell_6
25: P_{8790} = (21, 8, 1, 1) lies on line \ell_{12}
                                                                      58: P_{9514} = (41, 19, 1, 1) lies on line \ell_{12}
26: P_{8797} = (28, 8, 1, 1) lies on line \ell_9
                                                                      59: P_{9532} = (59, 19, 1, 1) lies on line \ell_9
27: P_{8841} = (8, 9, 1, 1) lies on line \ell_6
                                                                      60: P_{9558} = (21, 20, 1, 1) lies on line \ell_6
28: P_{8869} = (36, 9, 1, 1) lies on line \ell_9
                                                                      61: P_{9574} = (37, 20, 1, 1) lies on line \ell_{12}
29: P_{8877} = (44, 9, 1, 1) lies on line \ell_{12}
                                                                      62: P_{9585} = (48, 20, 1, 1) lies on line \ell_9
30: P_{8903} = (6, 10, 1, 1) lies on line \ell_{12}
                                                                      63: P_{9609} = (8, 21, 1, 1) lies on line \ell_9
31: P_{8908} = (11, 10, 1, 1) lies on line \ell_6
                                                                      64: P_{9621} = (20, 21, 1, 1) lies on line \ell_6
32: P_{8910} = (13, 10, 1, 1) lies on line \ell_9
                                                                      65: P_{9629} = (28, 21, 1, 1) lies on line \ell_{12}
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66: P_{9688} = (23, 22, 1, 1) lies on line \ell_6
                                                                     120: P_{10819} = (2, 40, 1, 1) lies on line \ell_{12}
67: P_{9698} = (33, 22, 1, 1) lies on line \ell_9
                                                                     121: P_{10858} = (41, 40, 1, 1) lies on line \ell_6
68: P_{9719} = (54, 22, 1, 1) lies on line \ell_{12}
                                                                      122: P_{10860} = (43, 40, 1, 1) lies on line \ell_9
69: P_{9744} = (15, 23, 1, 1) lies on line \ell_{12}
                                                                     123: P_{10900} = (19, 41, 1, 1) lies on line \ell_9
70: P_{9751} = (22, 23, 1, 1) lies on line \ell_6
                                                                     124: P_{10921} = (40, 41, 1, 1) lies on line \ell_6
71: P_{9754} = (25, 23, 1, 1) lies on line \ell_9
                                                                     125: P_{10940} = (59, 41, 1, 1) lies on line \ell_{12}
                                                                     126: P_{10962} = (17, 42, 1, 1) lies on line \ell_{12}
72: P_{9818} = (25, 24, 1, 1) lies on line \ell_6
73: P_{9839} = (46, 24, 1, 1) lies on line \ell_{12}
                                                                      127: P_{10988} = (43, 42, 1, 1) lies on line \ell_6
74: P_{9848} = (55, 24, 1, 1) lies on line \ell_9
                                                                     128: P_{11003} = (58, 42, 1, 1) lies on line \ell_9
75: P_{9872} = (15, 25, 1, 1) lies on line \ell_9
                                                                     129: P_{11011} = (2, 43, 1, 1) lies on line \ell_9
76: P_{9880} = (23, 25, 1, 1) lies on line \ell_{12}
                                                                     130: P_{11049} = (40, 43, 1, 1) lies on line \ell_{12}
                                                                     131 : P_{11051} = (42, 43, 1, 1) lies on line \ell_6
77: P_{9881} = (24, 25, 1, 1) lies on line \ell_6
78: P_{9948} = (27, 26, 1, 1) lies on line \ell_6
                                                                     132: P_{11082} = (9, 44, 1, 1) lies on line \ell_9
79: P_{9959} = (38, 26, 1, 1) lies on line \ell_9
                                                                     133: P_{11109} = (36, 44, 1, 1) lies on line \ell_{12}
80: P_{9982} = (61, 26, 1, 1) lies on line \ell_{12}
                                                                     134: P_{11118} = (45, 44, 1, 1) lies on line \ell_6
81: P_{9989} = (4, 27, 1, 1) lies on line \ell_{12}
                                                                     135: P_{11166} = (29, 45, 1, 1) lies on line \ell_{12}
82: P_{10011} = (26, 27, 1, 1) lies on line \ell_6
                                                                     136: P_{11181} = (44, 45, 1, 1) lies on line \ell_6
83: P_{10015} = (30, 27, 1, 1) lies on line \ell_9
                                                                     137: P_{11186} = (49, 45, 1, 1) lies on line \ell_9
84: P_{10057} = (8, 28, 1, 1) lies on line \ell_{12}
                                                                     138: P_{11225} = (24, 46, 1, 1) lies on line \ell_9
85: P_{10070} = (21, 28, 1, 1) lies on line \ell_9
                                                                     139: P_{11248} = (47, 46, 1, 1) lies on line \ell_6
86: P_{10078} = (29, 28, 1, 1) lies on line \ell_6
                                                                     140: P_{11256} = (55, 46, 1, 1) lies on line \ell_{12}
87: P_{10141} = (28, 29, 1, 1) lies on line \ell_6
                                                                     141: P_{11279} = (14, 47, 1, 1) lies on line \ell_{12}
                                                                     142: P_{11297} = (32, 47, 1, 1) lies on line \ell_9
88: P_{10158} = (45, 29, 1, 1) lies on line \ell_9
89 : P_{10162} = (49, 29, 1, 1) lies on line \ell_{12}
                                                                     143: P_{11311} = (46, 47, 1, 1) lies on line \ell_6
90: P_{10181} = (4, 30, 1, 1) lies on line \ell_9
                                                                     144: P_{11349} = (20, 48, 1, 1) lies on line \ell_{12}
91: P_{10204} = (27, 30, 1, 1) lies on line \ell_{12}
                                                                     145: P_{11366} = (37, 48, 1, 1) lies on line \ell_9
92: P_{10208} = (31, 30, 1, 1) lies on line \ell_6
                                                                     146: P_{11378} = (49, 48, 1, 1) lies on line \ell_6
93: P_{10271} = (30, 31, 1, 1) lies on line \ell_6
                                                                     147: P_{11422} = (29, 49, 1, 1) lies on line \ell_9
94: P_{10275} = (34, 31, 1, 1) lies on line \ell_{12}
                                                                     148: P_{11438} = (45, 49, 1, 1) lies on line \ell_{12}
95: P_{10301} = (60, 31, 1, 1) lies on line \ell_9
                                                                     149: P_{11441} = (48, 49, 1, 1) lies on line \ell_6
96: P_{10319} = (14, 32, 1, 1) lies on line \ell_9
                                                                     150: P_{11464} = (7, 50, 1, 1) lies on line \ell_{12}
97: P_{10338} = (33, 32, 1, 1) lies on line \ell_6
                                                                     151: P_{11508} = (51, 50, 1, 1) lies on line \ell_6
98: P_{10352} = (47, 32, 1, 1) lies on line \ell_{12}
                                                                     152: P_{11509} = (52, 50, 1, 1) lies on line \ell_9
99: P_{10391} = (22, 33, 1, 1) lies on line \ell_{12}
                                                                     153: P_{11533} = (12, 51, 1, 1) lies on line \ell_9
100: P_{10401} = (32, 33, 1, 1) lies on line \ell_6
                                                                     154: P_{11571} = (50, 51, 1, 1) lies on line \ell_6
101: P_{10423} = (54, 33, 1, 1) lies on line \ell_9
                                                                     155: P_{11583} = (62, 51, 1, 1) lies on line \ell_{12}
102: P_{10464} = (31, 34, 1, 1) lies on line \ell_9
                                                                     156: P_{11592} = (7, 52, 1, 1) lies on line \ell_9
103 : P_{10468} = (35, 34, 1, 1) lies on line \ell_6
                                                                     157: P_{11635} = (50, 52, 1, 1) lies on line \ell_{12}
104: P_{10493} = (60, 34, 1, 1) lies on line \ell_{12}
                                                                     158: P_{11638} = (53, 52, 1, 1) lies on line \ell_6
105: P_{10502} = (5, 35, 1, 1) lies on line \ell_{12}
                                                                     159: P_{11660} = (11, 53, 1, 1) lies on line \ell_{12}
106: P_{10531} = (34, 35, 1, 1) lies on line \ell_6
                                                                     160: P_{11701} = (52, 53, 1, 1) lies on line \ell_6
107: P_{10536} = (39, 35, 1, 1) lies on line \ell_9
                                                                     161: P_{11712} = (63, 53, 1, 1) lies on line \ell_9
108: P_{10570} = (9, 36, 1, 1) lies on line \ell_{12}
                                                                     162: P_{11735} = (22, 54, 1, 1) lies on line \ell_9
109: P_{10598} = (37, 36, 1, 1) lies on line \ell_6
                                                                     163: P_{11746} = (33, 54, 1, 1) lies on line \ell_{12}
110: P_{10605} = (44, 36, 1, 1) lies on line \ell_9
                                                                     164: P_{11768} = (55, 54, 1, 1) lies on line \ell_6
111: P_{10645} = (20, 37, 1, 1) lies on line \ell_9
                                                                     165: P_{11801} = (24, 55, 1, 1) lies on line \ell_{12}
112: P_{10661} = (36, 37, 1, 1) lies on line \ell_6
                                                                     166: P_{11823} = (46, 55, 1, 1) lies on line \ell_9
113: P_{10673} = (48, 37, 1, 1) lies on line \ell_{12}
                                                                     167: P_{11831} = (54, 55, 1, 1) lies on line \ell_6
114: P_{10715} = (26, 38, 1, 1) lies on line \ell_{12}
                                                                     168: P_{11986} = (17, 58, 1, 1) lies on line \ell_9
115: P_{10728} = (39, 38, 1, 1) lies on line \ell_6
                                                                     169: P_{12011} = (42, 58, 1, 1) lies on line \ell_{12}
116: P_{10750} = (61, 38, 1, 1) lies on line \ell_9
                                                                     170: P_{12028} = (59, 58, 1, 1) lies on line \ell_6
117: P_{10758} = (5, 39, 1, 1) lies on line \ell_9
                                                                     171: P_{12052} = (19, 59, 1, 1) lies on line \ell_{12}
118 : P_{10788} = (35, 39, 1, 1) lies on line \ell_{12}
                                                                     172: P_{12074} = (41, 59, 1, 1) lies on line \ell_9
119: P_{10791} = (38, 39, 1, 1) lies on line \ell_6
                                                                     173: P_{12091} = (58, 59, 1, 1) lies on line \ell_6
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174: P_{12128} = (31, 60, 1, 1) lies on line \ell_{12}
                                                                     228: P_{41026} = (1, 0, 9, 1) lies on line \ell_0
175 : P_{12131} = (34, 60, 1, 1) lies on line \ell_9
                                                                     229: P_{41081} = (56, 0, 9, 1) lies on line \ell_1
176: P_{12158} = (61, 60, 1, 1) lies on line \ell_6
                                                                     230: P_{41082} = (57, 0, 9, 1) lies on line \ell_2
177: P_{12187} = (26, 61, 1, 1) lies on line \ell_9
                                                                     231 : P_{41089} = (0, 1, 9, 1) lies on line \ell_3
                                                                     232 : P_{44609} = (0, 56, 9, 1) lies on line \ell_4
178: P_{12199} = (38, 61, 1, 1) lies on line \ell_{12}
179: P_{12221} = (60, 61, 1, 1) lies on line \ell_6
                                                                     233: P_{44673} = (0, 57, 9, 1) lies on line \ell_5
180: P_{12237} = (12, 62, 1, 1) lies on line \ell_{12}
                                                                     234: P_{45122} = (1, 0, 10, 1) lies on line \ell_0
181: P_{12276} = (51, 62, 1, 1) lies on line \ell_9
                                                                     235: P_{45177} = (56, 0, 10, 1) lies on line \ell_1
182 : P_{12288} = (63, 62, 1, 1) lies on line \ell_6
                                                                     236: P_{45178} = (57, 0, 10, 1) lies on line \ell_2
183: P_{12300} = (11, 63, 1, 1) lies on line \ell_9
                                                                     237: P_{45185} = (0, 1, 10, 1) lies on line \ell_3
184: P_{12342} = (53, 63, 1, 1) lies on line \ell_{12}
                                                                     238: P_{48705} = (0, 56, 10, 1) lies on line \ell_4
185 : P_{12351} = (62, 63, 1, 1) lies on line \ell_6
                                                                     239: P_{48769} = (0, 57, 10, 1) lies on line \ell_5
186: P_{12354} = (1, 0, 2, 1) lies on line \ell_0
                                                                     240: P_{49218} = (1, 0, 11, 1) lies on line \ell_0
187: P_{12409} = (56, 0, 2, 1) lies on line \ell_1
                                                                     241: P_{49273} = (56, 0, 11, 1) lies on line \ell_1
188: P_{12410} = (57, 0, 2, 1) lies on line \ell_2
                                                                     242 : P_{49274} = (57, 0, 11, 1) lies on line \ell_2
189 : P_{12417} = (0, 1, 2, 1) lies on line \ell_3
                                                                     243: P_{49281} = (0, 1, 11, 1) lies on line \ell_3
190: P_{15937} = (0, 56, 2, 1) lies on line \ell_4
                                                                     244: P_{52801} = (0, 56, 11, 1) lies on line \ell_4
191: P_{16001} = (0, 57, 2, 1) lies on line \ell_5
                                                                     245: P_{52865} = (0, 57, 11, 1) lies on line \ell_5
                                                                     246 : P_{53314} = (1, 0, 12, 1) lies on line \ell_0
192: P_{16450} = (1,0,3,1) lies on line \ell_0
193: P_{16505} = (56, 0, 3, 1) lies on line \ell_1
                                                                     247: P_{53369} = (56, 0, 12, 1) lies on line \ell_1
194: P_{16506} = (57, 0, 3, 1) lies on line \ell_2
                                                                     248: P_{53370} = (57, 0, 12, 1) lies on line \ell_2
195: P_{16513} = (0, 1, 3, 1) lies on line \ell_3
                                                                     249: P_{53377} = (0, 1, 12, 1) lies on line \ell_3
196: P_{20033} = (0, 56, 3, 1) lies on line \ell_4
                                                                     250: P_{56897} = (0, 56, 12, 1) lies on line \ell_4
                                                                     251 : P_{56961} = (0, 57, 12, 1) lies on line \ell_5
197: P_{20097} = (0, 57, 3, 1) lies on line \ell_5
198: P_{20546} = (1, 0, 4, 1) lies on line \ell_0
                                                                     252: P_{57410} = (1, 0, 13, 1) lies on line \ell_0
199: P_{20601} = (56, 0, 4, 1) lies on line \ell_1
                                                                     253: P_{57465} = (56, 0, 13, 1) lies on line \ell_1
200: P_{20602} = (57, 0, 4, 1) lies on line \ell_2
                                                                     254: P_{57466} = (57, 0, 13, 1) lies on line \ell_2
201: P_{20609} = (0, 1, 4, 1) lies on line \ell_3
                                                                     255: P_{57473} = (0, 1, 13, 1) lies on line \ell_3
202: P_{24129} = (0, 56, 4, 1) lies on line \ell_4
                                                                     256: P_{60993} = (0, 56, 13, 1) lies on line \ell_4
203: P_{24193} = (0, 57, 4, 1) lies on line \ell_5
                                                                     257: P_{61057} = (0, 57, 13, 1) lies on line \ell_5
204: P_{24642} = (1,0,5,1) lies on line \ell_0
                                                                     258: P_{61506} = (1, 0, 14, 1) lies on line \ell_0
205: P_{24697} = (56, 0, 5, 1) lies on line \ell_1
                                                                     259: P_{61561} = (56, 0, 14, 1) lies on line \ell_1
206: P_{24698} = (57, 0, 5, 1) lies on line \ell_2
                                                                     260: P_{61562} = (57, 0, 14, 1) lies on line \ell_2
207: P_{24705} = (0, 1, 5, 1) lies on line \ell_3
                                                                     261: P_{61569} = (0, 1, 14, 1) lies on line \ell_3
208: P_{28225} = (0, 56, 5, 1) lies on line \ell_4
                                                                     262: P_{65089} = (0, 56, 14, 1) lies on line \ell_4
209: P_{28289} = (0, 57, 5, 1) lies on line \ell_5
                                                                     263: P_{65153} = (0, 57, 14, 1) lies on line \ell_5
210: P_{28738} = (1, 0, 6, 1) lies on line \ell_0
                                                                     264: P_{65602} = (1, 0, 15, 1) lies on line \ell_0
211 : P_{28793} = (56, 0, 6, 1) lies on line \ell_1
                                                                     265: P_{65657} = (56, 0, 15, 1) lies on line \ell_1
212: P_{28794} = (57, 0, 6, 1) lies on line \ell_2
                                                                     266: P_{65658} = (57, 0, 15, 1) lies on line \ell_2
213: P_{28801} = (0, 1, 6, 1) lies on line \ell_3
                                                                     267: P_{65665} = (0, 1, 15, 1) lies on line \ell_3
                                                                     268: P_{69185} = (0, 56, 15, 1) lies on line \ell_4
214: P_{32321} = (0, 56, 6, 1) lies on line \ell_4
215: P_{32385} = (0, 57, 6, 1) lies on line \ell_5
                                                                     269: P_{69249} = (0, 57, 15, 1) lies on line \ell_5
216: P_{32834} = (1, 0, 7, 1) lies on line \ell_0
                                                                     270: P_{69698} = (1, 0, 16, 1) lies on line \ell_0
217: P_{32889} = (56, 0, 7, 1) lies on line \ell_1
                                                                     271: P_{69753} = (56, 0, 16, 1) lies on line \ell_1
218: P_{32890} = (57, 0, 7, 1) lies on line \ell_2
                                                                     272: P_{69754} = (57, 0, 16, 1) lies on line \ell_2
                                                                     273 : P_{69761} = (0, 1, 16, 1) lies on line \ell_3
219: P_{32897} = (0, 1, 7, 1) lies on line \ell_3
220: P_{36417} = (0, 56, 7, 1) lies on line \ell_4
                                                                     274: P_{73281} = (0, 56, 16, 1) lies on line \ell_4
221: P_{36481} = (0, 57, 7, 1) lies on line \ell_5
                                                                     275: P_{73345} = (0, 57, 16, 1) lies on line \ell_5
222: P_{36930} = (1, 0, 8, 1) lies on line \ell_0
                                                                     276: P_{73794} = (1, 0, 17, 1) lies on line \ell_0
223: P_{36985} = (56, 0, 8, 1) lies on line \ell_1
                                                                     277: P_{73849} = (56, 0, 17, 1) lies on line \ell_1
224: P_{36986} = (57, 0, 8, 1) lies on line \ell_2
                                                                     278: P_{73850} = (57, 0, 17, 1) lies on line \ell_2
225: P_{36993} = (0, 1, 8, 1) lies on line \ell_3
                                                                     279: P_{73857} = (0, 1, 17, 1) lies on line \ell_3
                                                                     280 : P_{77377} = (0, 56, 17, 1) lies on line \ell_4
226: P_{40513} = (0, 56, 8, 1) lies on line \ell_4
227: P_{40577} = (0, 57, 8, 1) lies on line \ell_5
                                                                     281: P_{77441} = (0, 57, 17, 1) lies on line \ell_5
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282 : P_{77890} = (1, 0, 18, 1) lies on line \ell_0
                                                                    336 : P_{114754} = (1, 0, 27, 1) lies on line \ell_0
283: P_{77945} = (56, 0, 18, 1) lies on line \ell_1
                                                                    337: P_{114809} = (56, 0, 27, 1) lies on line \ell_1
                                                                     338 : P_{114810} = (57, 0, 27, 1) lies on line \ell_2
284: P_{77946} = (57, 0, 18, 1) lies on line \ell_2
285: P_{77953} = (0, 1, 18, 1) lies on line \ell_3
                                                                     339 : P_{114817} = (0, 1, 27, 1) lies on line \ell_3
286 : P_{81473} = (0, 56, 18, 1) lies on line \ell_4
                                                                    340: P_{118337} = (0, 56, 27, 1) lies on line \ell_4
287: P_{81537} = (0, 57, 18, 1) lies on line \ell_5
                                                                    341: P_{118401} = (0, 57, 27, 1) lies on line \ell_5
                                                                    342: P_{118850} = (1, 0, 28, 1) lies on line \ell_0
288: P_{81986} = (1, 0, 19, 1) lies on line \ell_0
289: P_{82041} = (56, 0, 19, 1) lies on line \ell_1
                                                                    343: P_{118905} = (56, 0, 28, 1) lies on line \ell_1
290 : P_{82042} = (57, 0, 19, 1) lies on line \ell_2
                                                                    344: P_{118906} = (57, 0, 28, 1) lies on line \ell_2
291: P_{82049} = (0, 1, 19, 1) lies on line \ell_3
                                                                    345: P_{118913} = (0, 1, 28, 1) lies on line \ell_3
292: P_{85569} = (0, 56, 19, 1) lies on line \ell_4
                                                                    346: P_{122433} = (0, 56, 28, 1) lies on line \ell_4
293: P_{85633} = (0, 57, 19, 1) lies on line \ell_5
                                                                    347: P_{122497} = (0, 57, 28, 1) lies on line \ell_5
294: P_{86082} = (1, 0, 20, 1) lies on line \ell_0
                                                                    348 : P_{122946} = (1, 0, 29, 1) lies on line \ell_0
                                                                    349: P_{123001} = (56, 0, 29, 1) lies on line \ell_1
295: P_{86137} = (56, 0, 20, 1) lies on line \ell_1
296: P_{86138} = (57, 0, 20, 1) lies on line \ell_2
                                                                    350: P_{123002} = (57, 0, 29, 1) lies on line \ell_2
297: P_{86145} = (0, 1, 20, 1) lies on line \ell_3
                                                                    351: P_{123009} = (0, 1, 29, 1) lies on line \ell_3
298: P_{89665} = (0, 56, 20, 1) lies on line \ell_4
                                                                    352: P_{126529} = (0, 56, 29, 1) lies on line \ell_4
299: P_{89729} = (0, 57, 20, 1) lies on line \ell_5
                                                                    353: P_{126593} = (0, 57, 29, 1) lies on line \ell_5
                                                                    354 : P_{127042} = (1, 0, 30, 1) lies on line \ell_0
300: P_{90178} = (1,0,21,1) lies on line \ell_0
301: P_{90233} = (56, 0, 21, 1) lies on line \ell_1
                                                                    355: P_{127097} = (56, 0, 30, 1) lies on line \ell_1
302: P_{90234} = (57, 0, 21, 1) lies on line \ell_2
                                                                    356: P_{127098} = (57, 0, 30, 1) lies on line \ell_2
303: P_{90241} = (0, 1, 21, 1) lies on line \ell_3
                                                                    357: P_{127105} = (0, 1, 30, 1) lies on line \ell_3
304: P_{93761} = (0, 56, 21, 1) lies on line \ell_4
                                                                    358: P_{130625} = (0, 56, 30, 1) lies on line \ell_4
305: P_{93825} = (0, 57, 21, 1) lies on line \ell_5
                                                                    359: P_{130689} = (0, 57, 30, 1) lies on line \ell_5
306: P_{94274} = (1, 0, 22, 1) lies on line \ell_0
                                                                    360: P_{131138} = (1,0,31,1) lies on line \ell_0
307: P_{94329} = (56, 0, 22, 1) lies on line \ell_1
                                                                    361: P_{131193} = (56, 0, 31, 1) lies on line \ell_1
308: P_{94330} = (57, 0, 22, 1) lies on line \ell_2
                                                                    362: P_{131194} = (57, 0, 31, 1) lies on line \ell_2
309: P_{94337} = (0, 1, 22, 1) lies on line \ell_3
                                                                    363: P_{131201} = (0, 1, 31, 1) lies on line \ell_3
310: P_{97857} = (0, 56, 22, 1) lies on line \ell_4
                                                                    364: P_{134721} = (0, 56, 31, 1) lies on line \ell_4
311: P_{97921} = (0, 57, 22, 1) lies on line \ell_5
                                                                    365: P_{134785} = (0, 57, 31, 1) lies on line \ell_5
312: P_{98370} = (1, 0, 23, 1) lies on line \ell_0
                                                                    366: P_{135234} = (1,0,32,1) lies on line \ell_0
313: P_{98425} = (56, 0, 23, 1) lies on line \ell_1
                                                                    367: P_{135289} = (56, 0, 32, 1) lies on line \ell_1
314: P_{98426} = (57, 0, 23, 1) lies on line \ell_2
                                                                    368: P_{135290} = (57, 0, 32, 1) lies on line \ell_2
315: P_{98433} = (0, 1, 23, 1) lies on line \ell_3
                                                                    369: P_{135297} = (0, 1, 32, 1) lies on line \ell_3
316: P_{101953} = (0, 56, 23, 1) lies on line \ell_4
                                                                    370: P_{138817} = (0, 56, 32, 1) lies on line \ell_4
317: P_{102017} = (0, 57, 23, 1) lies on line \ell_5
                                                                    371: P_{138881} = (0, 57, 32, 1) lies on line \ell_5
318: P_{102466} = (1, 0, 24, 1) lies on line \ell_0
                                                                    372: P_{139330} = (1, 0, 33, 1) lies on line \ell_0
319: P_{102521} = (56, 0, 24, 1) lies on line \ell_1
                                                                    373: P_{139385} = (56, 0, 33, 1) lies on line \ell_1
                                                                    374: P_{139386} = (57, 0, 33, 1) lies on line \ell_2
320: P_{102522} = (57, 0, 24, 1) lies on line \ell_2
321 : P_{102529} = (0, 1, 24, 1) lies on line \ell_3
                                                                    375 : P_{139393} = (0, 1, 33, 1) lies on line \ell_3
322: P_{106049} = (0, 56, 24, 1) lies on line \ell_4
                                                                    376: P_{142913} = (0, 56, 33, 1) lies on line \ell_4
323: P_{106113} = (0, 57, 24, 1) lies on line \ell_5
                                                                    377: P_{142977} = (0, 57, 33, 1) lies on line \ell_5
324: P_{106562} = (1, 0, 25, 1) lies on line \ell_0
                                                                    378 : P_{143426} = (1, 0, 34, 1) lies on line \ell_0
325: P_{106617} = (56, 0, 25, 1) lies on line \ell_1
                                                                    379: P_{143481} = (56, 0, 34, 1) lies on line \ell_1
326: P_{106618} = (57, 0, 25, 1) lies on line \ell_2
                                                                    380: P_{143482} = (57, 0, 34, 1) lies on line \ell_2
327: P_{106625} = (0, 1, 25, 1) lies on line \ell_3
                                                                     381: P_{143489} = (0, 1, 34, 1) lies on line \ell_3
328: P_{110145} = (0, 56, 25, 1) lies on line \ell_4
                                                                    382: P_{147009} = (0, 56, 34, 1) lies on line \ell_4
329: P_{110209} = (0, 57, 25, 1) lies on line \ell_5
                                                                    383: P_{147073} = (0, 57, 34, 1) lies on line \ell_5
330: P_{110658} = (1, 0, 26, 1) lies on line \ell_0
                                                                    384: P_{147522} = (1, 0, 35, 1) lies on line \ell_0
331 : P_{110713} = (56, 0, 26, 1) lies on line \ell_1
                                                                    385: P_{147577} = (56, 0, 35, 1) lies on line \ell_1
332 : P_{110714} = (57, 0, 26, 1) lies on line \ell_2
                                                                    386: P_{147578} = (57, 0, 35, 1) lies on line \ell_2
333: P_{110721} = (0, 1, 26, 1) lies on line \ell_3
                                                                    387: P_{147585} = (0, 1, 35, 1) lies on line \ell_3
334 : P_{114241} = (0, 56, 26, 1) lies on line \ell_4
                                                                    388: P_{151105} = (0, 56, 35, 1) lies on line \ell_4
335: P_{114305} = (0, 57, 26, 1) lies on line \ell_5
                                                                    389: P_{151169} = (0, 57, 35, 1) lies on line \ell_5
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444: P_{188482} = (1, 0, 45, 1) lies on line \ell_0
390: P_{151618} = (1, 0, 36, 1) lies on line \ell_0
                                                                     445: P_{188537} = (56, 0, 45, 1) lies on line \ell_1
391: P_{151673} = (56, 0, 36, 1) lies on line \ell_1
                                                                     446: P_{188538} = (57, 0, 45, 1) lies on line \ell_2
392: P_{151674} = (57, 0, 36, 1) lies on line \ell_2
393: P_{151681} = (0, 1, 36, 1) lies on line \ell_3
                                                                     447: P_{188545} = (0, 1, 45, 1) lies on line \ell_3
                                                                    448: P_{192065} = (0, 56, 45, 1) lies on line \ell_4
394: P_{155201} = (0, 56, 36, 1) lies on line \ell_4
395: P_{155265} = (0, 57, 36, 1) lies on line \ell_5
                                                                    449: P_{192129} = (0, 57, 45, 1) lies on line \ell_5
396: P_{155714} = (1,0,37,1) lies on line \ell_0
                                                                     450: P_{192578} = (1, 0, 46, 1) lies on line \ell_0
397: P_{155769} = (56, 0, 37, 1) lies on line \ell_1
                                                                     451: P_{192633} = (56, 0, 46, 1) lies on line \ell_1
398: P_{155770} = (57, 0, 37, 1) lies on line \ell_2
                                                                    452: P_{192634} = (57, 0, 46, 1) lies on line \ell_2
399: P_{155777} = (0, 1, 37, 1) lies on line \ell_3
                                                                     453: P_{192641} = (0, 1, 46, 1) lies on line \ell_3
400: P_{159297} = (0, 56, 37, 1) lies on line \ell_4
                                                                    454: P_{196161} = (0, 56, 46, 1) lies on line \ell_4
401: P_{159361} = (0, 57, 37, 1) lies on line \ell_5
                                                                    455: P_{196225} = (0, 57, 46, 1) lies on line \ell_5
402: P_{159810} = (1, 0, 38, 1) lies on line \ell_0
                                                                    456: P_{196674} = (1, 0, 47, 1) lies on line \ell_0
403: P_{159865} = (56, 0, 38, 1) lies on line \ell_1
                                                                    457: P_{196729} = (56, 0, 47, 1) lies on line \ell_1
404: P_{159866} = (57, 0, 38, 1) lies on line \ell_2
                                                                     458: P_{196730} = (57, 0, 47, 1) lies on line \ell_2
405: P_{159873} = (0, 1, 38, 1) lies on line \ell_3
                                                                     459: P_{196737} = (0, 1, 47, 1) lies on line \ell_3
406: P_{163393} = (0, 56, 38, 1) lies on line \ell_4
                                                                     460: P_{200257} = (0, 56, 47, 1) lies on line \ell_4
                                                                     461: P_{200321} = (0, 57, 47, 1) lies on line \ell_5
407: P_{163457} = (0, 57, 38, 1) lies on line \ell_5
408 : P_{163906} = (1, 0, 39, 1) lies on line \ell_0
                                                                     462 : P_{200770} = (1, 0, 48, 1) lies on line \ell_0
409: P_{163961} = (56, 0, 39, 1) lies on line \ell_1
                                                                    463: P_{200825} = (56, 0, 48, 1) lies on line \ell_1
410: P_{163962} = (57, 0, 39, 1) lies on line \ell_2
                                                                    464: P_{200826} = (57, 0, 48, 1) lies on line \ell_2
411: P_{163969} = (0, 1, 39, 1) lies on line \ell_3
                                                                     465: P_{200833} = (0, 1, 48, 1) lies on line \ell_3
                                                                     466 : P_{204353} = (0, 56, 48, 1) lies on line \ell_4
412: P_{167489} = (0, 56, 39, 1) lies on line \ell_4
413 : P_{167553} = (0, 57, 39, 1) lies on line \ell_5
                                                                     467: P_{204417} = (0, 57, 48, 1) lies on line \ell_5
414: P_{168002} = (1, 0, 40, 1) lies on line \ell_0
                                                                     468: P_{204866} = (1, 0, 49, 1) lies on line \ell_0
415: P_{168057} = (56, 0, 40, 1) lies on line \ell_1
                                                                     469: P_{204921} = (56, 0, 49, 1) lies on line \ell_1
416: P_{168058} = (57, 0, 40, 1) lies on line \ell_2
                                                                    470: P_{204922} = (57, 0, 49, 1) lies on line \ell_2
417: P_{168065} = (0, 1, 40, 1) lies on line \ell_3
                                                                    471: P_{204929} = (0, 1, 49, 1) lies on line \ell_3
418: P_{171585} = (0, 56, 40, 1) lies on line \ell_4
                                                                    472: P_{208449} = (0, 56, 49, 1) lies on line \ell_4
419: P_{171649} = (0, 57, 40, 1) lies on line \ell_5
                                                                    473: P_{208513} = (0, 57, 49, 1) lies on line \ell_5
420: P_{172098} = (1, 0, 41, 1) lies on line \ell_0
                                                                     474: P_{208962} = (1, 0, 50, 1) lies on line \ell_0
421: P_{172153} = (56, 0, 41, 1) lies on line \ell_1
                                                                    475: P_{209017} = (56, 0, 50, 1) lies on line \ell_1
422: P_{172154} = (57, 0, 41, 1) lies on line \ell_2
                                                                     476: P_{209018} = (57, 0, 50, 1) lies on line \ell_2
423 : P_{172161} = (0, 1, 41, 1) lies on line \ell_3
                                                                    477: P_{209025} = (0, 1, 50, 1) lies on line \ell_3
424: P_{175681} = (0, 56, 41, 1) lies on line \ell_4
                                                                    478: P_{212545} = (0, 56, 50, 1) lies on line \ell_4
425 : P_{175745} = (0, 57, 41, 1) lies on line \ell_5
                                                                    479: P_{212609} = (0, 57, 50, 1) lies on line \ell_5
426: P_{176194} = (1, 0, 42, 1) lies on line \ell_0
                                                                     480: P_{213058} = (1, 0, 51, 1) lies on line \ell_0
427: P_{176249} = (56, 0, 42, 1) lies on line \ell_1
                                                                     481: P_{213113} = (56, 0, 51, 1) lies on line \ell_1
                                                                     482 : P_{213114} = (57, 0, 51, 1) lies on line \ell_2
428: P_{176250} = (57, 0, 42, 1) lies on line \ell_2
429 : P_{176257} = (0, 1, 42, 1) lies on line \ell_3
                                                                     483 : P_{213121} = (0, 1, 51, 1) lies on line \ell_3
430: P_{179777} = (0, 56, 42, 1) lies on line \ell_4
                                                                     484: P_{216641} = (0, 56, 51, 1) lies on line \ell_4
431: P_{179841} = (0, 57, 42, 1) lies on line \ell_5
                                                                     485: P_{216705} = (0, 57, 51, 1) lies on line \ell_5
432 : P_{180290} = (1, 0, 43, 1) lies on line \ell_0
                                                                    486: P_{217154} = (1, 0, 52, 1) lies on line \ell_0
433: P_{180345} = (56, 0, 43, 1) lies on line \ell_1
                                                                     487: P_{217209} = (56, 0, 52, 1) lies on line \ell_1
434: P_{180346} = (57, 0, 43, 1) lies on line \ell_2
                                                                     488: P_{217210} = (57, 0, 52, 1) lies on line \ell_2
435: P_{180353} = (0, 1, 43, 1) lies on line \ell_3
                                                                     489: P_{217217} = (0, 1, 52, 1) lies on line \ell_3
436: P_{183873} = (0, 56, 43, 1) lies on line \ell_4
                                                                    490: P_{220737} = (0, 56, 52, 1) lies on line \ell_4
437: P_{183937} = (0, 57, 43, 1) lies on line \ell_5
                                                                     491: P_{220801} = (0, 57, 52, 1) lies on line \ell_5
438 : P_{184386} = (1, 0, 44, 1) lies on line \ell_0
                                                                    492: P_{221250} = (1, 0, 53, 1) lies on line \ell_0
439: P_{184441} = (56, 0, 44, 1) lies on line \ell_1
                                                                    493: P_{221305} = (56, 0, 53, 1) lies on line \ell_1
440: P_{184442} = (57, 0, 44, 1) lies on line \ell_2
                                                                    494: P_{221306} = (57, 0, 53, 1) lies on line \ell_2
441: P_{184449} = (0, 1, 44, 1) lies on line \ell_3
                                                                     495: P_{221313} = (0, 1, 53, 1) lies on line \ell_3
442 : P_{187969} = (0, 56, 44, 1) lies on line \ell_4
                                                                     496: P_{224833} = (0, 56, 53, 1) lies on line \ell_4
443: P_{188033} = (0, 57, 44, 1) lies on line \ell_5
                                                                     497: P_{224897} = (0, 57, 53, 1) lies on line \ell_5
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498 : P_{225346} = (1, 0, 54, 1) lies on line \ell_0
                                                                     552: P_{234563} = (2, 16, 56, 1) lies on line \ell_{13}
                                                                     553: P_{234601} = (40, 16, 56, 1) lies on line \ell_7
499: P_{225401} = (56, 0, 54, 1) lies on line \ell_1
500: P_{225402} = (57, 0, 54, 1) lies on line \ell_2
                                                                     554: P_{234603} = (42, 16, 56, 1) lies on line \ell_{10}
501: P_{225409} = (0, 1, 54, 1) lies on line \ell_3
                                                                     555: P_{234643} = (18, 17, 56, 1) lies on line \ell_{10}
                                                                     556: P_{234666} = (41, 17, 56, 1) lies on line \ell_7
502: P_{228929} = (0, 56, 54, 1) lies on line \ell_4
503: P_{228993} = (0, 57, 54, 1) lies on line \ell_5
                                                                     557: P_{234684} = (59, 17, 56, 1) lies on line \ell_{13}
                                                                     558: P_{234706} = (17, 18, 56, 1) lies on line \ell_{13}
504: P_{229442} = (1, 0, 55, 1) lies on line \ell_0
505: P_{229497} = (56, 0, 55, 1) lies on line \ell_1
                                                                     559: P_{234731} = (42, 18, 56, 1) lies on line \ell_7
506: P_{229498} = (57, 0, 55, 1) lies on line \ell_2
                                                                     560: P_{234748} = (59, 18, 56, 1) lies on line \ell_{10}
507: P_{229505} = (0, 1, 55, 1) lies on line \ell_3
                                                                     561: P_{234756} = (3, 19, 56, 1) lies on line \ell_{10}
508: P_{233025} = (0, 56, 55, 1) lies on line \ell_4
                                                                     562: P_{234793} = (40, 19, 56, 1) lies on line \ell_{13}
509: P_{233089} = (0, 57, 55, 1) lies on line \ell_5
                                                                     563: P_{234796} = (43, 19, 56, 1) lies on line \ell_7
510: P_{233681} = (16, 2, 56, 1) lies on line \ell_{10}
                                                                     564: P_{234825} = (8, 20, 56, 1) lies on line \ell_{10}
511: P_{233707} = (42, 2, 56, 1) lies on line \ell_{13}
                                                                     565: P_{234853} = (36, 20, 56, 1) lies on line \ell_{13}
512: P_{233723} = (58, 2, 56, 1) lies on line \ell_7
                                                                     566: P_{234861} = (44, 20, 56, 1) lies on line \ell_7
513: P_{233748} = (19, 3, 56, 1) lies on line \ell_{13}
                                                                     567: P_{234910} = (29, 21, 56, 1) lies on line \ell_{13}
514 : P_{233769} = (40, 3, 56, 1) lies on line \ell_{10}
                                                                     568: P_{234926} = (45, 21, 56, 1) lies on line \ell_7
515: P_{233788} = (59, 3, 56, 1) lies on line \ell_7
                                                                     569: P_{234929} = (48, 21, 56, 1) lies on line \ell_{10}
                                                                     570: P_{234970} = (25, 22, 56, 1) lies on line \ell_{10}
516: P_{233824} = (31, 4, 56, 1) lies on line \ell_{13}
517: P_{233828} = (35, 4, 56, 1) lies on line \ell_{10}
                                                                     571: P_{234991} = (46, 22, 56, 1) lies on line \ell_7
518: P_{233853} = (60, 4, 56, 1) lies on line \ell_7
                                                                     572: P_{235000} = (55, 22, 56, 1) lies on line \ell_{13}
519: P_{233884} = (27, 5, 56, 1) lies on line \ell_{10}
                                                                     573: P_{235023} = (14, 23, 56, 1) lies on line \ell_{13}
520: P_{233895} = (38, 5, 56, 1) lies on line \ell_{13}
                                                                     574: P_{235042} = (33, 23, 56, 1) lies on line \ell_{10}
                                                                     575: P_{235056} = (47, 23, 56, 1) lies on line \ell_7
521: P_{233918} = (61, 5, 56, 1) lies on line \ell_7
522: P_{233933} = (12, 6, 56, 1) lies on line \ell_{13}
                                                                     576: P_{235088} = (15, 24, 56, 1) lies on line \ell_{10}
                                                                     577 : P_{235105} = (32, 24, 56, 1) lies on line \ell_7
523: P_{233971} = (50, 6, 56, 1) lies on line \ell_{10}
524: P_{233983} = (62, 6, 56, 1) lies on line \ell_7
                                                                     578: P_{235120} = (47, 24, 56, 1) lies on line \ell_{13}
525: P_{233995} = (10, 7, 56, 1) lies on line \ell_{10}
                                                                     579: P_{235159} = (22, 25, 56, 1) lies on line \ell_{13}
526: P_{234038} = (53, 7, 56, 1) lies on line \ell_{13}
                                                                     580: P_{235170} = (33, 25, 56, 1) lies on line \ell_7
527: P_{234048} = (63, 7, 56, 1) lies on line \ell_7
                                                                     581: P_{235192} = (55, 25, 56, 1) lies on line \ell_{10}
528: P_{234069} = (20, 8, 56, 1) lies on line \ell_{13}
                                                                     582: P_{235231} = (30, 26, 56, 1) lies on line \ell_{10}
529: P_{234085} = (36, 8, 56, 1) lies on line \ell_{10}
                                                                     583: P_{235235} = (34, 26, 56, 1) lies on line \ell_7
530: P_{234097} = (48, 8, 56, 1) lies on line \ell_7
                                                                     584: P_{235261} = (60, 26, 56, 1) lies on line \ell_{13}
531 : P_{234141} = (28, 9, 56, 1) lies on line \ell_{10}
                                                                     585: P_{235270} = (5, 27, 56, 1) lies on line \ell_{13}
532: P_{234158} = (45, 9, 56, 1) lies on line \ell_{13}
                                                                     586: P_{235300} = (35, 27, 56, 1) lies on line \ell_7
533 : P_{234162} = (49, 9, 56, 1) lies on line \ell_7
                                                                     587: P_{235303} = (38, 27, 56, 1) lies on line \ell_{10}
534: P_{234184} = (7, 10, 56, 1) lies on line \ell_{13}
                                                                     588: P_{235338} = (9, 28, 56, 1) lies on line \ell_{13}
535: P_{234227} = (50, 10, 56, 1) lies on line \ell_7
                                                                     589: P_{235365} = (36, 28, 56, 1) lies on line \ell_7
536: P_{234230} = (53, 10, 56, 1) lies on line \ell_{10}
                                                                     590: P_{235374} = (45, 28, 56, 1) lies on line \ell_{10}
                                                                     591 : P_{235414} = (21, 29, 56, 1) lies on line \ell_{10}
537: P_{234254} = (13, 11, 56, 1) lies on line \ell_{10}
538: P_{234292} = (51, 11, 56, 1) lies on line \ell_7
                                                                     592: P_{235430} = (37, 29, 56, 1) lies on line \ell_7
539: P_{234303} = (62, 11, 56, 1) lies on line \ell_{13}
                                                                     593: P_{235441} = (48, 29, 56, 1) lies on line \ell_{13}
540: P_{234311} = (6, 12, 56, 1) lies on line \ell_{10}
                                                                     594 : P_{235483} = (26, 30, 56, 1) lies on line \ell_{13}
541: P_{234355} = (50, 12, 56, 1) lies on line \ell_{13}
                                                                     595: P_{235495} = (38, 30, 56, 1) lies on line \ell_7
542: P_{234357} = (52, 12, 56, 1) lies on line \ell_7
                                                                     596: P_{235517} = (60, 30, 56, 1) lies on line \ell_{10}
543: P_{234380} = (11, 13, 56, 1) lies on line \ell_{13}
                                                                     597: P_{235525} = (4, 31, 56, 1) lies on line \ell_{10}
544: P_{234422} = (53, 13, 56, 1) lies on line \ell_7
                                                                     598: P_{235556} = (35, 31, 56, 1) lies on line \ell_{13}
545: P_{234431} = (62, 13, 56, 1) lies on line \ell_{10}
                                                                     599: P_{235560} = (39, 31, 56, 1) lies on line \ell_7
546: P_{234456} = (23, 14, 56, 1) lies on line \ell_{10}
                                                                     600: P_{235609} = (24, 32, 56, 1) lies on line \ell_7
547: P_{234466} = (33, 14, 56, 1) lies on line \ell_{13}
                                                                     601: P_{235631} = (46, 32, 56, 1) lies on line \ell_{13}
548: P_{234487} = (54, 14, 56, 1) lies on line \ell_7
                                                                     602: P_{235639} = (54, 32, 56, 1) lies on line \ell_{10}
549: P_{234521} = (24, 15, 56, 1) lies on line \ell_{13}
                                                                     603: P_{235663} = (14, 33, 56, 1) lies on line \ell_{10}
550 : P_{234544} = (47, 15, 56, 1) lies on line \ell_{10}
                                                                     604: P_{235672} = (23, 33, 56, 1) lies on line \ell_{13}
551: P_{234552} = (55, 15, 56, 1) lies on line \ell_7
                                                                     605: P_{235674} = (25, 33, 56, 1) lies on line \ell_7
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606: P_{235739} = (26, 34, 56, 1) lies on line \ell_7
                                                                      660: P_{236877} = (12, 52, 56, 1) lies on line \ell_7
607: P_{235752} = (39, 34, 56, 1) lies on line \ell_{10}
                                                                      661: P_{236916} = (51, 52, 56, 1) lies on line \ell_{13}
608: P_{235774} = (61, 34, 56, 1) lies on line \ell_{13}
                                                                      662: P_{236928} = (63, 52, 56, 1) lies on line \ell_{10}
609 : P_{235781} = (4, 35, 56, 1) lies on line \ell_{13}
                                                                     663: P_{236936} = (7, 53, 56, 1) lies on line \ell_{10}
                                                                     664 : P_{236939} = (10, 53, 56, 1) lies on line \ell_{13}
610: P_{235804} = (27, 35, 56, 1) lies on line \ell_7
611: P_{235808} = (31, 35, 56, 1) lies on line \ell_{10}
                                                                     665: P_{236942} = (13, 53, 56, 1) lies on line \ell_7
612 : P_{235849} = (8, 36, 56, 1) lies on line \ell_{13}
                                                                     666: P_{237007} = (14, 54, 56, 1) lies on line \ell_7
613: P_{235861} = (20, 36, 56, 1) lies on line \ell_{10}
                                                                      667: P_{237025} = (32, 54, 56, 1) lies on line \ell_{13}
614: P_{235869} = (28, 36, 56, 1) lies on line \ell_7
                                                                     668: P_{237039} = (46, 54, 56, 1) lies on line \ell_{10}
615: P_{235934} = (29, 37, 56, 1) lies on line \ell_7
                                                                      669: P_{237072} = (15, 55, 56, 1) lies on line \ell_7
616: P_{235949} = (44, 37, 56, 1) lies on line \ell_{10}
                                                                     670: P_{237079} = (22, 55, 56, 1) lies on line \ell_{10}
617: P_{235954} = (49, 37, 56, 1) lies on line \ell_{13}
                                                                     671: P_{237082} = (25, 55, 56, 1) lies on line \ell_{13}
618: P_{235974} = (5, 38, 56, 1) lies on line \ell_{10}
                                                                     672: P_{237251} = (2, 58, 56, 1) lies on line \ell_7
619: P_{235996} = (27, 38, 56, 1) lies on line \ell_{13}
                                                                      673: P_{237290} = (41, 58, 56, 1) lies on line \ell_{10}
620: P_{235999} = (30, 38, 56, 1) lies on line \ell_7
                                                                     674: P_{237292} = (43, 58, 56, 1) lies on line \ell_{13}
621: P_{236064} = (31, 39, 56, 1) lies on line \ell_7
                                                                     675: P_{237316} = (3, 59, 56, 1) lies on line \ell_7
622: P_{236067} = (34, 39, 56, 1) lies on line \ell_{13}
                                                                     676: P_{237330} = (17, 59, 56, 1) lies on line \ell_{10}
623: P_{236094} = (61, 39, 56, 1) lies on line \ell_{10}
                                                                      677: P_{237331} = (18, 59, 56, 1) lies on line \ell_{13}
624: P_{236100} = (3, 40, 56, 1) lies on line \ell_{13}
                                                                     678: P_{237381} = (4, 60, 56, 1) lies on line \ell_7
625: P_{236113} = (16, 40, 56, 1) lies on line \ell_7
                                                                     679: P_{237403} = (26, 60, 56, 1) lies on line \ell_{10}
626: P_{236116} = (19, 40, 56, 1) lies on line \ell_{10}
                                                                     680: P_{237407} = (30, 60, 56, 1) lies on line \ell_{13}
627: P_{236178} = (17, 41, 56, 1) lies on line \ell_7
                                                                      681 : P_{237446} = (5, 61, 56, 1) lies on line \ell_7
628: P_{236204} = (43, 41, 56, 1) lies on line \ell_{10}
                                                                      682: P_{237475} = (34, 61, 56, 1) lies on line \ell_{10}
                                                                     683 : P_{237480} = (39, 61, 56, 1) lies on line \ell_{13}
629: P_{236219} = (58, 41, 56, 1) lies on line \ell_{13}
630: P_{236227} = (2, 42, 56, 1) lies on line \ell_{10}
                                                                     684: P_{237511} = (6, 62, 56, 1) lies on line \ell_7
631: P_{236241} = (16, 42, 56, 1) lies on line \ell_{13}
                                                                     685: P_{237516} = (11, 62, 56, 1) lies on line \ell_{10}
632: P_{236243} = (18, 42, 56, 1) lies on line \ell_7
                                                                     686: P_{237518} = (13, 62, 56, 1) lies on line \ell_{13}
633 : P_{236308} = (19, 43, 56, 1) lies on line \ell_7
                                                                     687: P_{237576} = (7, 63, 56, 1) lies on line \ell_7
634: P_{236330} = (41, 43, 56, 1) lies on line \ell_{13}
                                                                      688: P_{237620} = (51, 63, 56, 1) lies on line \ell_{10}
635: P_{236347} = (58, 43, 56, 1) lies on line \ell_{10}
                                                                      689: P_{237621} = (52, 63, 56, 1) lies on line \ell_{13}
636: P_{236373} = (20, 44, 56, 1) lies on line \ell_7
                                                                      690: P_{237779} = (18, 2, 57, 1) lies on line \ell_{14}
637: P_{236390} = (37, 44, 56, 1) lies on line \ell_{13}
                                                                     691: P_{237802} = (41, 2, 57, 1) lies on line \ell_{11}
638: P_{236402} = (49, 44, 56, 1) lies on line \ell_{10}
                                                                      692: P_{237820} = (59, 2, 57, 1) lies on line \ell_8
639: P_{236426} = (9, 45, 56, 1) lies on line \ell_{10}
                                                                     693: P_{237842} = (17, 3, 57, 1) lies on line \ell_{11}
640: P_{236438} = (21, 45, 56, 1) lies on line \ell_7
                                                                     694: P_{237868} = (43, 3, 57, 1) lies on line \ell_{14}
641: P_{236445} = (28, 45, 56, 1) lies on line \ell_{13}
                                                                     695: P_{237883} = (58, 3, 57, 1) lies on line \ell_8
642: P_{236503} = (22, 46, 56, 1) lies on line \ell_7
                                                                      696: P_{237915} = (26, 4, 57, 1) lies on line \ell_{11}
643: P_{236513} = (32, 46, 56, 1) lies on line \ell_{10}
                                                                      697: P_{237928} = (39, 4, 57, 1) lies on line \ell_{14}
                                                                      698 : P_{237950} = (61, 4, 57, 1) lies on line \ell_8
644: P_{236535} = (54, 46, 56, 1) lies on line \ell_{13}
645: P_{236560} = (15, 47, 56, 1) lies on line \ell_{13}
                                                                      699: P_{237983} = (30, 5, 57, 1) lies on line \ell_{14}
646 : P_{236568} = (23, 47, 56, 1) lies on line \ell_7
                                                                      700: P_{237987} = (34, 5, 57, 1) lies on line \ell_{11}
647: P_{236569} = (24, 47, 56, 1) lies on line \ell_{10}
                                                                      701: P_{238013} = (60, 5, 57, 1) lies on line \ell_8
648: P_{236617} = (8, 48, 56, 1) lies on line \ell_7
                                                                     702: P_{238028} = (11, 6, 57, 1) lies on line \ell_{11}
649: P_{236630} = (21, 48, 56, 1) lies on line \ell_{13}
                                                                      703: P_{238069} = (52, 6, 57, 1) lies on line \ell_{14}
650: P_{236638} = (29, 48, 56, 1) lies on line \ell_{10}
                                                                      704: P_{238080} = (63, 6, 57, 1) lies on line \ell_8
651: P_{236682} = (9, 49, 56, 1) lies on line \ell_7
                                                                      705: P_{238094} = (13, 7, 57, 1) lies on line \ell_{14}
652: P_{236710} = (37, 49, 56, 1) lies on line \ell_{10}
                                                                      706: P_{238132} = (51, 7, 57, 1) lies on line \ell_{11}
653: P_{236717} = (44, 49, 56, 1) lies on line \ell_{13}
                                                                      707: P_{238143} = (62, 7, 57, 1) lies on line \ell_8
654: P_{236743} = (6, 50, 56, 1) lies on line \ell_{13}
                                                                      708: P_{238174} = (29, 8, 57, 1) lies on line \ell_{11}
655: P_{236747} = (10, 50, 56, 1) lies on line \ell_7
                                                                      709: P_{238189} = (44, 8, 57, 1) lies on line \ell_{14}
656: P_{236749} = (12, 50, 56, 1) lies on line \ell_{10}
                                                                     710: P_{238194} = (49, 8, 57, 1) lies on line \ell_8
657: P_{236812} = (11, 51, 56, 1) lies on line \ell_7
                                                                      711: P_{238230} = (21, 9, 57, 1) lies on line \ell_{14}
658 : P_{236853} = (52, 51, 56, 1) lies on line \ell_{10}
                                                                      712: P_{238246} = (37, 9, 57, 1) lies on line \ell_{11}
659: P_{236864} = (63, 51, 56, 1) lies on line \ell_{13}
                                                                      713: P_{238257} = (48, 9, 57, 1) lies on line \ell_8
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768 : P_{239445} = (20, 28, 57, 1) lies on line \ell_{11}
714: P_{238285} = (12, 10, 57, 1) lies on line \ell_{11}
715: P_{238324} = (51, 10, 57, 1) lies on line \ell_8
                                                                      769: P_{239462} = (37, 28, 57, 1) lies on line \ell_8
                                                                      770: P_{239474} = (49, 28, 57, 1) lies on line \ell_{14}
716: P_{238336} = (63, 10, 57, 1) lies on line \ell_{14}
717: P_{238343} = (6, 11, 57, 1) lies on line \ell_{14}
                                                                      771: P_{239497} = (8, 29, 57, 1) lies on line \ell_{14}
718: P_{238387} = (50, 11, 57, 1) lies on line \ell_8
                                                                      772: P_{239525} = (36, 29, 57, 1) lies on line \ell_8
719: P_{238389} = (52, 11, 57, 1) lies on line \ell_{11}
                                                                      773: P_{239533} = (44, 29, 57, 1) lies on line \ell_{11}
720: P_{238411} = (10, 12, 57, 1) lies on line \ell_{14}
                                                                      774: P_{239558} = (5, 30, 57, 1) lies on line \ell_{11}
                                                                      775: P_{239587} = (34, 30, 57, 1) lies on line \ell_{14}
721: P_{238454} = (53, 12, 57, 1) lies on line \ell_8
722: P_{238464} = (63, 12, 57, 1) lies on line \ell_{11}
                                                                      776: P_{239592} = (39, 30, 57, 1) lies on line \ell_8
723: P_{238472} = (7, 13, 57, 1) lies on line \ell_{11}
                                                                      777: P_{239644} = (27, 31, 57, 1) lies on line \ell_{14}
724: P_{238516} = (51, 13, 57, 1) lies on line \ell_{14}
                                                                      778: P_{239655} = (38, 31, 57, 1) lies on line \ell_8
725: P_{238517} = (52, 13, 57, 1) lies on line \ell_8
                                                                      779: P_{239678} = (61, 31, 57, 1) lies on line \ell_{11}
726: P_{238554} = (25, 14, 57, 1) lies on line \ell_{14}
                                                                      780: P_{239696} = (15, 32, 57, 1) lies on line \ell_{11}
727: P_{238575} = (46, 14, 57, 1) lies on line \ell_{11}
                                                                      781: P_{239703} = (22, 32, 57, 1) lies on line \ell_{14}
728 : P_{238584} = (55, 14, 57, 1) lies on line \ell_8
                                                                      782 : P_{239706} = (25, 32, 57, 1) lies on line \ell_8
729: P_{238615} = (22, 15, 57, 1) lies on line \ell_{11}
                                                                      783: P_{239769} = (24, 33, 57, 1) lies on line \ell_8
730: P_{238625} = (32, 15, 57, 1) lies on line \ell_{14}
                                                                      784: P_{239792} = (47, 33, 57, 1) lies on line \ell_{14}
731: P_{238647} = (54, 15, 57, 1) lies on line \ell_8
                                                                      785: P_{239800} = (55, 33, 57, 1) lies on line \ell_{11}
732: P_{238676} = (19, 16, 57, 1) lies on line \ell_{11}
                                                                      786: P_{239814} = (5, 34, 57, 1) lies on line \ell_{14}
                                                                      787: P_{239836} = (27, 34, 57, 1) lies on line \ell_8
733: P_{238698} = (41, 16, 57, 1) lies on line \ell_8
734: P_{238715} = (58, 16, 57, 1) lies on line \ell_{14}
                                                                      788: P_{239839} = (30, 34, 57, 1) lies on line \ell_{11}
735 : P_{238724} = (3, 17, 57, 1) lies on line \ell_{14}
                                                                      789 : P_{239899} = (26, 35, 57, 1) lies on line \ell_8
736: P_{238761} = (40, 17, 57, 1) lies on line \ell_8
                                                                      790: P_{239911} = (38, 35, 57, 1) lies on line \ell_{11}
737 : P_{238764} = (43, 17, 57, 1) lies on line \ell_{11}
                                                                      791 : P_{239933} = (60, 35, 57, 1) lies on line \ell_{14}
738: P_{238787} = (2, 18, 57, 1) lies on line \ell_{11}
                                                                      792: P_{239966} = (29, 36, 57, 1) lies on line \ell_8
739: P_{238826} = (41, 18, 57, 1) lies on line \ell_{14}
                                                                      793: P_{239982} = (45, 36, 57, 1) lies on line \ell_{11}
740: P_{238828} = (43, 18, 57, 1) lies on line \ell_8
                                                                      794: P_{239985} = (48, 36, 57, 1) lies on line \ell_{14}
741: P_{238865} = (16, 19, 57, 1) lies on line \ell_{14}
                                                                      795: P_{240010} = (9, 37, 57, 1) lies on line \ell_{14}
742: P_{238891} = (42, 19, 57, 1) lies on line \ell_8
                                                                      796: P_{240022} = (21, 37, 57, 1) lies on line \ell_{11}
743: P_{238907} = (58, 19, 57, 1) lies on line \ell_{11}
                                                                      797: P_{240029} = (28, 37, 57, 1) lies on line \ell_8
744: P_{238941} = (28, 20, 57, 1) lies on line \ell_{14}
                                                                      798: P_{240096} = (31, 38, 57, 1) lies on line \ell_8
745: P_{238958} = (45, 20, 57, 1) lies on line \ell_8
                                                                      799: P_{240100} = (35, 38, 57, 1) lies on line \ell_{14}
746: P_{238962} = (49, 20, 57, 1) lies on line \ell_{11}
                                                                      800: P_{240125} = (60, 38, 57, 1) lies on line \ell_{11}
                                                                     801 : P_{240133} = (4, 39, 57, 1) lies on line \ell_{11}
747: P_{238986} = (9, 21, 57, 1) lies on line \ell_{11}
748: P_{239014} = (37, 21, 57, 1) lies on line \ell_{14}
                                                                     802: P_{240155} = (26, 39, 57, 1) lies on line \ell_{14}
749 : P_{239021} = (44, 21, 57, 1) lies on line \ell_8
                                                                     803 : P_{240159} = (30, 39, 57, 1) lies on line \ell_8
750: P_{239056} = (15, 22, 57, 1) lies on line \ell_{14}
                                                                      804: P_{240210} = (17, 40, 57, 1) lies on line \ell_8
751: P_{239073} = (32, 22, 57, 1) lies on line \ell_{11}
                                                                      805: P_{240235} = (42, 40, 57, 1) lies on line \ell_{11}
752: P_{239088} = (47, 22, 57, 1) lies on line \ell_8
                                                                     806: P_{240252} = (59, 40, 57, 1) lies on line \ell_{14}
753: P_{239129} = (24, 23, 57, 1) lies on line \ell_{11}
                                                                     807: P_{240259} = (2,41,57,1) lies on line \ell_{14}
754: P_{239151} = (46, 23, 57, 1) lies on line \ell_8
                                                                     808: P_{240273} = (16, 41, 57, 1) lies on line \ell_8
755: P_{239159} = (54, 23, 57, 1) lies on line \ell_{14}
                                                                     809: P_{240275} = (18, 41, 57, 1) lies on line \ell_{11}
756: P_{239192} = (23, 24, 57, 1) lies on line \ell_{14}
                                                                     810: P_{240340} = (19, 42, 57, 1) lies on line \ell_8
757: P_{239202} = (33, 24, 57, 1) lies on line \ell_8
                                                                     811: P_{240361} = (40, 42, 57, 1) lies on line \ell_{14}
758: P_{239223} = (54, 24, 57, 1) lies on line \ell_{11}
                                                                     812: P_{240380} = (59, 42, 57, 1) lies on line \ell_{11}
759 : P_{239247} = (14, 25, 57, 1) lies on line \ell_{11}
                                                                     813: P_{240388} = (3, 43, 57, 1) lies on line \ell_{11}
760: P_{239265} = (32, 25, 57, 1) lies on line \ell_8
                                                                     814: P_{240402} = (17, 43, 57, 1) lies on line \ell_{14}
761: P_{239279} = (46, 25, 57, 1) lies on line \ell_{14}
                                                                     815: P_{240403} = (18, 43, 57, 1) lies on line \ell_8
762: P_{239301} = (4, 26, 57, 1) lies on line \ell_{14}
                                                                     816: P_{240457} = (8, 44, 57, 1) lies on line \ell_{11}
                                                                     817: P_{240470} = (21, 44, 57, 1) lies on line \ell_8
763: P_{239332} = (35, 26, 57, 1) lies on line \ell_8
764: P_{239336} = (39, 26, 57, 1) lies on line \ell_{11}
                                                                     818: P_{240478} = (29, 44, 57, 1) lies on line \ell_{14}
765: P_{239392} = (31, 27, 57, 1) lies on line \ell_{11}
                                                                     819: P_{240533} = (20, 45, 57, 1) lies on line \ell_8
766 : P_{239395} = (34, 27, 57, 1) lies on line \ell_8
                                                                      820: P_{240549} = (36, 45, 57, 1) lies on line \ell_{14}
767: P_{239422} = (61, 27, 57, 1) lies on line \ell_{14}
                                                                     821: P_{240561} = (48, 45, 57, 1) lies on line \ell_{11}
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865 : P_{241651} = (50, 62, 57, 1) lies on line \ell_{11}
822: P_{240591} = (14, 46, 57, 1) lies on line \ell_{14}
823: P_{240600} = (23, 46, 57, 1) lies on line \ell_8
                                                                     866: P_{241654} = (53, 62, 57, 1) lies on line \ell_{14}
824: P_{240602} = (25, 46, 57, 1) lies on line \ell_{11}
                                                                     867: P_{241671} = (6, 63, 57, 1) lies on line \ell_8
825: P_{240663} = (22, 47, 57, 1) lies on line \ell_8
                                                                     868: P_{241675} = (10, 63, 57, 1) lies on line \ell_{11}
826: P_{240674} = (33, 47, 57, 1) lies on line \ell_{11}
                                                                     869: P_{241677} = (12, 63, 57, 1) lies on line \ell_{14}
827: P_{240696} = (55, 47, 57, 1) lies on line \ell_{14}
                                                                     870: P_{241730} = (1, 0, 58, 1) lies on line \ell_0
828: P_{240714} = (9, 48, 57, 1) lies on line \ell_8
                                                                     871: P_{241785} = (56, 0, 58, 1) lies on line \ell_1
829: P_{240741} = (36, 48, 57, 1) lies on line \ell_{11}
                                                                     872: P_{241786} = (57, 0, 58, 1) lies on line \ell_2
830: P_{240750} = (45, 48, 57, 1) lies on line \ell_{14}
                                                                     873: P_{241793} = (0, 1, 58, 1) lies on line \ell_3
831 : P_{240777} = (8, 49, 57, 1) lies on line \ell_8
                                                                     874: P_{245313} = (0, 56, 58, 1) lies on line \ell_4
832: P_{240789} = (20, 49, 57, 1) lies on line \ell_{14}
                                                                     875: P_{245377} = (0, 57, 58, 1) lies on line \ell_5
833: P_{240797} = (28, 49, 57, 1) lies on line \ell_{11}
                                                                     876: P_{245826} = (1, 0, 59, 1) lies on line \ell_0
834: P_{240844} = (11, 50, 57, 1) lies on line \ell_8
                                                                     877: P_{245881} = (56, 0, 59, 1) lies on line \ell_1
835: P_{240886} = (53, 50, 57, 1) lies on line \ell_{11}
                                                                     878: P_{245882} = (57, 0, 59, 1) lies on line \ell_2
836: P_{240895} = (62, 50, 57, 1) lies on line \ell_{14}
                                                                     879: P_{245889} = (0, 1, 59, 1) lies on line \ell_3
837: P_{240904} = (7, 51, 57, 1) lies on line \ell_{14}
                                                                     880: P_{249409} = (0, 56, 59, 1) lies on line \ell_4
                                                                     881 : P_{249473} = (0, 57, 59, 1) lies on line \ell_5
838: P_{240907} = (10, 51, 57, 1) lies on line \ell_8
839: P_{240910} = (13, 51, 57, 1) lies on line \ell_{11}
                                                                     882: P_{249922} = (1, 0, 60, 1) lies on line \ell_0
840: P_{240967} = (6, 52, 57, 1) lies on line \ell_{11}
                                                                     883: P_{249977} = (56, 0, 60, 1) lies on line \ell_1
841: P_{240972} = (11, 52, 57, 1) lies on line \ell_{14}
                                                                     884: P_{249978} = (57, 0, 60, 1) lies on line \ell_2
842 : P_{240974} = (13, 52, 57, 1) lies on line \ell_8
                                                                     885: P_{249985} = (0, 1, 60, 1) lies on line \ell_3
843: P_{241037} = (12, 53, 57, 1) lies on line \ell_8
                                                                     886: P_{253505} = (0, 56, 60, 1) lies on line \ell_4
844: P_{241075} = (50, 53, 57, 1) lies on line \ell_{14}
                                                                     887: P_{253569} = (0, 57, 60, 1) lies on line \ell_5
845 : P_{241087} = (62, 53, 57, 1) lies on line \ell_{11}
                                                                     888: P_{254018} = (1, 0, 61, 1) lies on line \ell_0
846: P_{241104} = (15, 54, 57, 1) lies on line \ell_8
                                                                     889: P_{254073} = (56, 0, 61, 1) lies on line \ell_1
847: P_{241112} = (23, 54, 57, 1) lies on line \ell_{11}
                                                                     890: P_{254074} = (57, 0, 61, 1) lies on line \ell_2
848: P_{241113} = (24, 54, 57, 1) lies on line \ell_{14}
                                                                     891: P_{254081} = (0, 1, 61, 1) lies on line \ell_3
849: P_{241167} = (14, 55, 57, 1) lies on line \ell_8
                                                                     892: P_{257601} = (0, 56, 61, 1) lies on line \ell_4
850: P_{241186} = (33, 55, 57, 1) lies on line \ell_{14}
                                                                     893: P_{257665} = (0, 57, 61, 1) lies on line \ell_5
851: P_{241200} = (47, 55, 57, 1) lies on line \ell_{11}
                                                                     894 : P_{258114} = (1, 0, 62, 1) lies on line \ell_0
852: P_{241348} = (3, 58, 57, 1) lies on line \ell_8
                                                                     895: P_{258169} = (56, 0, 62, 1) lies on line \ell_1
853: P_{241361} = (16, 58, 57, 1) lies on line \ell_{11}
                                                                     896: P_{258170} = (57, 0, 62, 1) lies on line \ell_2
854: P_{241364} = (19, 58, 57, 1) lies on line \ell_{14}
                                                                     897: P_{258177} = (0, 1, 62, 1) lies on line \ell_3
                                                                     898 : P_{261697} = (0, 56, 62, 1) lies on line \ell_4
855: P_{241411} = (2, 59, 57, 1) lies on line \ell_8
856: P_{241449} = (40, 59, 57, 1) lies on line \ell_{11}
                                                                     899: P_{261761} = (0, 57, 62, 1) lies on line \ell_5
                                                                     900: P_{262210} = (1, 0, 63, 1) lies on line \ell_0
857: P_{241451} = (42, 59, 57, 1) lies on line \ell_{14}
                                                                     901 : P_{262265} = (56, 0, 63, 1) lies on line \ell_1
858: P_{241478} = (5, 60, 57, 1) lies on line \ell_8
859: P_{241508} = (35, 60, 57, 1) lies on line \ell_{11}
                                                                     902: P_{262266} = (57, 0, 63, 1) lies on line \ell_2
                                                                     903 : P_{262273} = (0, 1, 63, 1) lies on line \ell_3
860: P_{241511} = (38, 60, 57, 1) lies on line \ell_{14}
                                                                     904: P_{265793} = (0, 56, 63, 1) lies on line \ell_4
861: P_{241541} = (4, 61, 57, 1) lies on line \ell_8
862 : P_{241564} = (27, 61, 57, 1) lies on line \ell_{11}
                                                                     905: P_{265857} = (0, 57, 63, 1) lies on line \ell_5
863: P_{241568} = (31, 61, 57, 1) lies on line \ell_{14}
864: P_{241608} = (7, 62, 57, 1) lies on line \ell_8
```

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	0111111000	1	0	0	0	1
1	1011110100	0	1	1	0	0
2	1101110011	0	0	0	1	0
3	1110111000	0	1	0	1	0
4	1111010101	0	0	0	0	1
5	1111100010	1	0	1	0	0
6	1001000111	0	0	1	0	0
7	0100101010	1	0	0	1	0
8	0010011100	0	1	0	0	1
9	0010101000	1	1	1	0	0
10	1000010101	0	1	0	1	0
11	0101000011	1	0	0	0	1
12	0100011001	0	0	0	1	1
13	0011000100	1	0	1	0	1
14	1000100010	0	1	1	1	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	$\ell_1$	$\ell_2$	$\ell_3$	$\ell_4$	$\ell_5$	$\ell_6$	$\ell_{10}$	$\ell_{14}$
in point	$P_2$	$P_2$	$P_2$	$P_2$	$P_2$	$P_{8259}$	$P_{233538}$	$P_{237634}$

Line 1 intersects

Line	$\ell_0$	$\ell_2$	$\ell_3$	$\ell_4$	$\ell_5$	$\ell_7$	$\ell_{11}$	$\ell_{12}$
in point	$P_2$	$P_2$	$P_2$	$P_2$	$P_2$	$P_{233593}$	$P_{237689}$	$P_{8314}$

Line 2 intersects

Line	$\ell_0$	$\ell_1$	$\ell_3$	$\ell_4$	$\ell_5$	$\ell_8$	$\ell_9$	$\ell_{13}$
in point	$P_2$	$P_2$	$P_2$	$P_2$	$P_2$	$P_{237690}$	$P_{8315}$	$P_{233594}$

Line 3 intersects  $\mathbf{3}$ 

Line	$\ell_0$	$\ell_1$	$\ell_2$	$\ell_4$	$\ell_5$	$\ell_6$	$\ell_{11}$	$\ell_{13}$
in point	$P_2$	$P_2$	$P_2$	$P_2$	$P_2$	$P_{8322}$	$P_{237697}$	$P_{233601}$

 ${\bf Line~4~intersects}$ 

Line	$\ell_0$	$\ell_1$	$\ell_2$	$\ell_3$	$\ell_5$	$\ell_7$	$\ell_9$	$\ell_{14}$
in point	$P_2$	$P_2$	$P_2$	$P_2$	$P_2$	$P_{237121}$	$P_{11841}$	$P_{241217}$

 ${\bf Line~5~intersects}$ 

Line	$\ell_0$	$\ell_1$	$\ell_2$	$\ell_3$	$\ell_4$	$\ell_8$	$\ell_{10}$	$\ell_{12}$
in point	$P_2$	$P_2$	$P_2$	$P_2$	$P_2$	$P_{241281}$	$P_{237185}$	$P_{11905}$

 ${\bf Line~6~intersects}$ 

Line	$\ell_0$	$\ell_3$	$\ell_7$	$\ell_8$	$\ell_9$	$\ell_{12}$
in point	$P_{8259}$	$P_{8322}$	$P_5$	$P_5$	$P_{11961}$	$P_{11898}$

Line 7 intersects

Line	$\ell_1$	$\ell_4$	$\ell_6$	$\ell_8$	$\ell_{10}$	$\ell_{13}$
in point	$P_{233593}$	$P_{237121}$	$P_5$	$P_5$	$P_{233658}$	$P_{237186}$

Line 8 intersects

Line	$\ell_2$	$\ell_5$	$\ell_6$	$\ell_7$	$\ell_{11}$	$\ell_{14}$
in point	$P_{237690}$	$P_{241281}$	$P_5$	$P_5$	$P_{241218}$	$P_{237753}$

Line 9 intersects

Line	$\ell_2$	$\ell_4$	$\ell_6$	$\ell_{10}$	$\ell_{11}$	$\ell_{12}$
in point	$P_{8315}$	$P_{11841}$	$P_{11961}$	$P_{60}$	$P_{60}$	$P_4$

Line 10 intersects

Line	$\ell_0$	$\ell_5$	$\ell_7$	$\ell_9$	$\ell_{11}$	$\ell_{13}$
in point	$P_{233538}$	$P_{237185}$	$P_{233658}$	$P_{60}$	$P_{60}$	$P_{237177}$

Line 11 intersects

Line	$\ell_1$	$\ell_3$	$\ell_8$	$\ell_9$	$\ell_{10}$	$\ell_{14}$
in point	$P_{237689}$	$P_{237697}$	$P_{241218}$	$P_{60}$	$P_{60}$	$P_{241338}$

Line 12 intersects

Line	$\ell_1$	$\ell_5$	$\ell_6$	$\ell_9$	$\ell_{13}$	$\ell_{14}$
in point	$P_{8314}$	$P_{11905}$	$P_{11898}$	$P_4$	$P_{61}$	$P_{61}$

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

Line	$\ell_2$	$\ell_3$	$\ell_7$	$\ell_{10}$	$\ell_{12}$	$\ell_{14}$
in point	$P_{233594}$	$P_{233601}$	$P_{237186}$	$P_{237177}$	$P_{61}$	$P_{61}$

Line 14 intersects

Line	$\ell_0$	$\ell_4$	$\ell_8$	$\ell_{11}$	$\ell_{12}$	$\ell_{13}$
in point	$P_{237634}$	$P_{241217}$	$P_{237753}$	$P_{241338}$	$P_{61}$	$P_{61}$

The surface has 4417 points:

Too many to print.