

Rank-65922 over GF(64)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(64) is -2113396602

General information

Number of lines	12
Number of points	4353
Number of singular points	3
Number of Eckardt points	0
Number of double points	18
Number of single points	732
Number of points off lines	3600
Number of Hesse planes	0
Number of axes	0
Type of points on lines	65^{12}
Type of lines on points	$4^3, 2^{18}, 1^{732}, 0^{3600}$

Singular Points

The surface has 3 singular points:

$$0 : P_{48130} = \mathbf{P}(1, \epsilon^9, \epsilon^{54}, 1) = \mathbf{P}(1, 47, 10, 1)$$

$$1 : P_{156418} = \mathbf{P}(1, \epsilon^{18}, \epsilon^{45}, 1) = \mathbf{P}(1, 11, 37, 1)$$

$$2 : P_{194882} = \mathbf{P}(1, \epsilon^{36}, \epsilon^{27}, 1) = \mathbf{P}(1, 36, 46, 1)$$

The 12 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{18} & 0 \\ 0 & 1 & \epsilon^9 & 0 \end{array} \right]_{45818} = \left[\begin{array}{cccc} 1 & 0 & 11 & 0 \\ 0 & 1 & 47 & 0 \end{array} \right]_{45818} = \mathbf{Pl}(37, 0, 10, 0, 0, 1)_{271708}$$

$$\begin{aligned}
\ell_1 &= \begin{bmatrix} 1 & 0 & \epsilon^{36} & 0 \\ 0 & 1 & \epsilon^{18} & 0 \end{bmatrix}_{149807} = \begin{bmatrix} 1 & 0 & 36 & 0 \\ 0 & 1 & 11 & 0 \end{bmatrix}_{149807} = \mathbf{PI}(46, 0, 37, 0, 0, 1)_{275146} \\
\ell_2 &= \begin{bmatrix} 1 & 0 & \epsilon^9 & 0 \\ 0 & 1 & \epsilon^{36} & 0 \end{bmatrix}_{195603} = \begin{bmatrix} 1 & 0 & 47 & 0 \\ 0 & 1 & 36 & 0 \end{bmatrix}_{195603} = \mathbf{PI}(10, 0, 46, 0, 0, 1)_{276253} \\
\ell_3 &= \begin{bmatrix} 1 & 0 & \epsilon^{44} & \epsilon^{14} \\ 0 & 1 & \epsilon^{21} & \epsilon^7 \end{bmatrix}_{15589403} = \begin{bmatrix} 1 & 0 & 34 & 58 \\ 0 & 1 & 57 & 35 \end{bmatrix}_{15589403} = \mathbf{PI}(23, 41, 54, 52, 23, 1)_{6528718} \\
\ell_4 &= \begin{bmatrix} 1 & 0 & \epsilon^{18} & 1 \\ 0 & 1 & \epsilon^9 & 0 \end{bmatrix}_{312122} = \begin{bmatrix} 1 & 0 & 11 & 1 \\ 0 & 1 & 47 & 0 \end{bmatrix}_{312122} = \mathbf{PI}(47, 10, 10, 37, 0, 1)_{430027} \\
\ell_5 &= \begin{bmatrix} 1 & 0 & \epsilon^{37} & \epsilon^{49} \\ 0 & 1 & \epsilon^{42} & \epsilon^{56} \end{bmatrix}_{8162337} = \begin{bmatrix} 1 & 0 & 41 & 30 \\ 0 & 1 & 56 & 40 \end{bmatrix}_{8162337} = \mathbf{PI}(22, 34, 25, 62, 22, 1)_{6151410} \\
\ell_6 &= \begin{bmatrix} 1 & 0 & \epsilon^{25} & \epsilon^{28} \\ 0 & 1 & \epsilon^{42} & \epsilon^{14} \end{bmatrix}_{16493811} = \begin{bmatrix} 1 & 0 & 59 & 61 \\ 0 & 1 & 56 & 58 \end{bmatrix}_{16493811} = \mathbf{PI}(50, 31, 12, 8, 50, 1)_{13438207} \\
\ell_7 &= \begin{bmatrix} 1 & 0 & \epsilon^{22} & \epsilon^7 \\ 0 & 1 & \epsilon^{42} & \epsilon^{35} \end{bmatrix}_{9400907} = \begin{bmatrix} 1 & 0 & 19 & 35 \\ 0 & 1 & 56 & 18 \end{bmatrix}_{9400907} = \mathbf{PI}(29, 60, 21, 15, 29, 1)_{7970101} \\
\ell_8 &= \begin{bmatrix} 1 & 0 & \epsilon^{36} & 1 \\ 0 & 1 & \epsilon^{18} & 0 \end{bmatrix}_{416111} = \begin{bmatrix} 1 & 0 & 36 & 1 \\ 0 & 1 & 11 & 0 \end{bmatrix}_{416111} = \mathbf{PI}(11, 37, 37, 46, 0, 1)_{467413} \\
\ell_9 &= \begin{bmatrix} 1 & 0 & \epsilon^9 & 1 \\ 0 & 1 & \epsilon^{36} & 0 \end{bmatrix}_{461907} = \begin{bmatrix} 1 & 0 & 47 & 1 \\ 0 & 1 & 36 & 0 \end{bmatrix}_{461907} = \mathbf{PI}(36, 46, 46, 10, 0, 1)_{325121} \\
\ell_{10} &= \begin{bmatrix} 1 & 0 & \epsilon^{11} & \epsilon^{35} \\ 0 & 1 & \epsilon^{21} & \epsilon^{49} \end{bmatrix}_{4924440} = \begin{bmatrix} 1 & 0 & 31 & 18 \\ 0 & 1 & 57 & 30 \end{bmatrix}_{4924440} = \mathbf{PI}(51, 59, 7, 45, 51, 1)_{13680317} \\
\ell_{11} &= \begin{bmatrix} 1 & 0 & \epsilon^{50} & \epsilon^{56} \\ 0 & 1 & \epsilon^{21} & \epsilon^{28} \end{bmatrix}_{10905781} = \begin{bmatrix} 1 & 0 & 60 & 40 \\ 0 & 1 & 57 & 61 \end{bmatrix}_{10905781} = \mathbf{PI}(28, 19, 49, 33, 28, 1)_{7819152}
\end{aligned}$$

Rank of lines: (45818, 149807, 195603, 15589403, 312122, 8162337, 16493811, 9400907, 416111, 461907, 4924440, 10905781)

Rank of points on Klein quadric: (271708, 275146, 276253, 6528718, 430027, 6151410, 13438207, 7970101, 467413, 325121, 13680317, 7819152)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 18 Double points:

The double points on the surface are:

$$\begin{aligned}
P_{3111} &= (36, 47, 1, 0) = \ell_0 \cap \ell_1 \\
P_{2382} &= (11, 36, 1, 0) = \ell_0 \cap \ell_2 \\
P_{707} &= (0, 10, 1, 0) = \ell_0 \cap \ell_4 \\
P_{1626} &= (23, 24, 1, 0) = \ell_0 \cap \ell_7 \\
P_{3609} &= (22, 55, 1, 0) = \ell_0 \cap \ell_{11} \\
P_{818} &= (47, 11, 1, 0) = \ell_1 \cap \ell_2 \\
P_{501} &= (50, 6, 1, 0) = \ell_1 \cap \ell_3 \\
P_{950} &= (51, 13, 1, 0) = \ell_1 \cap \ell_5 \\
P_{2435} &= (0, 37, 1, 0) = \ell_1 \cap \ell_8 \\
P_{1375} &= (28, 20, 1, 0) = \ell_2 \cap \ell_6
\end{aligned}$$

$$\begin{aligned}
P_{3011} &= (0, 46, 1, 0) = \ell_2 \cap \ell_9 \\
P_{3168} &= (29, 48, 1, 0) = \ell_2 \cap \ell_{10} \\
P_{265721} &= (56, 54, 63, 1) = \ell_3 \cap \ell_6 \\
P_{136634} &= (57, 21, 32, 1) = \ell_3 \cap \ell_7 \\
P_{222906} &= (57, 25, 53, 1) = \ell_5 \cap \ell_{10} \\
P_{64697} &= (56, 49, 14, 1) = \ell_5 \cap \ell_{11} \\
P_{185210} &= (57, 12, 44, 1) = \ell_6 \cap \ell_{11} \\
P_{41529} &= (56, 7, 9, 1) = \ell_7 \cap \ell_{10}
\end{aligned}$$

Single Points

The surface has 732 single points:
The single points on the surface are:

- | | |
|--|--|
| 0 : $P_{14} = (10, 1, 0, 0)$ lies on line ℓ_0 | 48 : $P_{1139} = (48, 16, 1, 0)$ lies on line ℓ_1 |
| 1 : $P_{41} = (37, 1, 0, 0)$ lies on line ℓ_1 | 49 : $P_{1176} = (21, 17, 1, 0)$ lies on line ℓ_1 |
| 2 : $P_{50} = (46, 1, 0, 0)$ lies on line ℓ_2 | 50 : $P_{1196} = (41, 17, 1, 0)$ lies on line ℓ_2 |
| 3 : $P_{77} = (10, 0, 1, 0)$ lies on line ℓ_2 | 51 : $P_{1199} = (44, 17, 1, 0)$ lies on line ℓ_0 |
| 4 : $P_{104} = (37, 0, 1, 0)$ lies on line ℓ_0 | 52 : $P_{1246} = (27, 18, 1, 0)$ lies on line ℓ_1 |
| 5 : $P_{113} = (46, 0, 1, 0)$ lies on line ℓ_1 | 53 : $P_{1269} = (50, 18, 1, 0)$ lies on line ℓ_0 |
| 6 : $P_{142} = (11, 1, 1, 0)$ lies on line ℓ_1 | 54 : $P_{1277} = (58, 18, 1, 0)$ lies on line ℓ_2 |
| 7 : $P_{167} = (36, 1, 1, 0)$ lies on line ℓ_2 | 55 : $P_{1303} = (20, 19, 1, 0)$ lies on line ℓ_2 |
| 8 : $P_{178} = (47, 1, 1, 0)$ lies on line ℓ_0 | 56 : $P_{1339} = (56, 19, 1, 0)$ lies on line ℓ_0 |
| 9 : $P_{200} = (5, 2, 1, 0)$ lies on line ℓ_1 | 57 : $P_{1345} = (62, 19, 1, 0)$ lies on line ℓ_1 |
| 10 : $P_{244} = (49, 2, 1, 0)$ lies on line ℓ_0 | 58 : $P_{1354} = (7, 20, 1, 0)$ lies on line ℓ_1 |
| 11 : $P_{250} = (55, 2, 1, 0)$ lies on line ℓ_2 | 59 : $P_{1361} = (14, 20, 1, 0)$ lies on line ℓ_0 |
| 12 : $P_{284} = (25, 3, 1, 0)$ lies on line ℓ_2 | 60 : $P_{1415} = (4, 21, 1, 0)$ lies on line ℓ_0 |
| 13 : $P_{291} = (32, 3, 1, 0)$ lies on line ℓ_1 | 61 : $P_{1445} = (34, 21, 1, 0)$ lies on line ℓ_1 |
| 14 : $P_{318} = (59, 3, 1, 0)$ lies on line ℓ_0 | 62 : $P_{1461} = (50, 21, 1, 0)$ lies on line ℓ_2 |
| 15 : $P_{336} = (13, 4, 1, 0)$ lies on line ℓ_0 | 63 : $P_{1501} = (26, 22, 1, 0)$ lies on line ℓ_0 |
| 16 : $P_{340} = (17, 4, 1, 0)$ lies on line ℓ_2 | 64 : $P_{1508} = (33, 22, 1, 0)$ lies on line ℓ_2 |
| 17 : $P_{348} = (25, 4, 1, 0)$ lies on line ℓ_1 | 65 : $P_{1519} = (44, 22, 1, 0)$ lies on line ℓ_1 |
| 18 : $P_{394} = (7, 5, 1, 0)$ lies on line ℓ_0 | 66 : $P_{1548} = (9, 23, 1, 0)$ lies on line ℓ_1 |
| 19 : $P_{447} = (60, 5, 1, 0)$ lies on line ℓ_1 | 67 : $P_{1554} = (15, 23, 1, 0)$ lies on line ℓ_2 |
| 20 : $P_{450} = (63, 5, 1, 0)$ lies on line ℓ_2 | 68 : $P_{1555} = (16, 23, 1, 0)$ lies on line ℓ_0 |
| 21 : $P_{476} = (25, 6, 1, 0)$ lies on line ℓ_0 | 69 : $P_{1652} = (49, 24, 1, 0)$ lies on line ℓ_2 |
| 22 : $P_{495} = (44, 6, 1, 0)$ lies on line ℓ_2 | 70 : $P_{1666} = (63, 24, 1, 0)$ lies on line ℓ_1 |
| 23 : $P_{517} = (2, 7, 1, 0)$ lies on line ℓ_2 | 71 : $P_{1693} = (26, 25, 1, 0)$ lies on line ℓ_1 |
| 24 : $P_{534} = (19, 7, 1, 0)$ lies on line ℓ_0 | 72 : $P_{1696} = (29, 25, 1, 0)$ lies on line ℓ_0 |
| 25 : $P_{538} = (23, 7, 1, 0)$ lies on line ℓ_1 | 73 : $P_{1698} = (31, 25, 1, 0)$ lies on line ℓ_2 |
| 26 : $P_{599} = (20, 8, 1, 0)$ lies on line ℓ_0 | 74 : $P_{1734} = (3, 26, 1, 0)$ lies on line ℓ_0 |
| 27 : $P_{612} = (33, 8, 1, 0)$ lies on line ℓ_1 | 75 : $P_{1743} = (12, 26, 1, 0)$ lies on line ℓ_2 |
| 28 : $P_{639} = (60, 8, 1, 0)$ lies on line ℓ_2 | 76 : $P_{1751} = (20, 26, 1, 0)$ lies on line ℓ_1 |
| 29 : $P_{647} = (4, 9, 1, 0)$ lies on line ℓ_1 | 77 : $P_{1804} = (9, 27, 1, 0)$ lies on line ℓ_0 |
| 30 : $P_{661} = (18, 9, 1, 0)$ lies on line ℓ_2 | 78 : $P_{1829} = (34, 27, 1, 0)$ lies on line ℓ_2 |
| 31 : $P_{673} = (30, 9, 1, 0)$ lies on line ℓ_0 | 79 : $P_{1844} = (49, 27, 1, 0)$ lies on line ℓ_1 |
| 32 : $P_{708} = (1, 10, 1, 0)$ lies on line ℓ_2 | 80 : $P_{1867} = (8, 28, 1, 0)$ lies on line ℓ_1 |
| 33 : $P_{717} = (10, 10, 1, 0)$ lies on line ℓ_1 | 81 : $P_{1901} = (42, 28, 1, 0)$ lies on line ℓ_2 |
| 34 : $P_{781} = (10, 11, 1, 0)$ lies on line ℓ_0 | 82 : $P_{1922} = (63, 28, 1, 0)$ lies on line ℓ_0 |
| 35 : $P_{857} = (22, 12, 1, 0)$ lies on line ℓ_1 | 83 : $P_{1927} = (4, 29, 1, 0)$ lies on line ℓ_2 |
| 36 : $P_{874} = (39, 12, 1, 0)$ lies on line ℓ_2 | 84 : $P_{1968} = (45, 29, 1, 0)$ lies on line ℓ_1 |
| 37 : $P_{895} = (60, 12, 1, 0)$ lies on line ℓ_0 | 85 : $P_{1976} = (53, 29, 1, 0)$ lies on line ℓ_0 |
| 38 : $P_{908} = (9, 13, 1, 0)$ lies on line ℓ_2 | 86 : $P_{2010} = (23, 30, 1, 0)$ lies on line ℓ_2 |
| 39 : $P_{953} = (54, 13, 1, 0)$ lies on line ℓ_0 | 87 : $P_{2022} = (35, 30, 1, 0)$ lies on line ℓ_1 |
| 40 : $P_{989} = (26, 14, 1, 0)$ lies on line ℓ_2 | 88 : $P_{2030} = (43, 30, 1, 0)$ lies on line ℓ_0 |
| 41 : $P_{1003} = (40, 14, 1, 0)$ lies on line ℓ_0 | 89 : $P_{2057} = (6, 31, 1, 0)$ lies on line ℓ_1 |
| 42 : $P_{1024} = (61, 14, 1, 0)$ lies on line ℓ_1 | 90 : $P_{2084} = (33, 31, 1, 0)$ lies on line ℓ_0 |
| 43 : $P_{1051} = (24, 15, 1, 0)$ lies on line ℓ_1 | 91 : $P_{2108} = (57, 31, 1, 0)$ lies on line ℓ_2 |
| 44 : $P_{1061} = (34, 15, 1, 0)$ lies on line ℓ_0 | 92 : $P_{2131} = (16, 32, 1, 0)$ lies on line ℓ_2 |
| 45 : $P_{1079} = (52, 15, 1, 0)$ lies on line ℓ_2 | 93 : $P_{2133} = (18, 32, 1, 0)$ lies on line ℓ_1 |
| 46 : $P_{1098} = (7, 16, 1, 0)$ lies on line ℓ_2 | 94 : $P_{2150} = (35, 32, 1, 0)$ lies on line ℓ_0 |
| 47 : $P_{1129} = (38, 16, 1, 0)$ lies on line ℓ_0 | 95 : $P_{2220} = (41, 33, 1, 0)$ lies on line ℓ_0 |

- 96 : $P_{2234} = (55, 33, 1, 0)$ lies on line ℓ_1
 97 : $P_{2241} = (62, 33, 1, 0)$ lies on line ℓ_2
 98 : $P_{2288} = (45, 34, 1, 0)$ lies on line ℓ_2
 99 : $P_{2298} = (55, 34, 1, 0)$ lies on line ℓ_0
 100 : $P_{2300} = (57, 34, 1, 0)$ lies on line ℓ_1
 101 : $P_{2310} = (3, 35, 1, 0)$ lies on line ℓ_2
 102 : $P_{2335} = (28, 35, 1, 0)$ lies on line ℓ_1
 103 : $P_{2368} = (61, 35, 1, 0)$ lies on line ℓ_0
 104 : $P_{2408} = (37, 36, 1, 0)$ lies on line ℓ_1
 105 : $P_{2436} = (1, 37, 1, 0)$ lies on line ℓ_0
 106 : $P_{2472} = (37, 37, 1, 0)$ lies on line ℓ_2
 107 : $P_{2513} = (14, 38, 1, 0)$ lies on line ℓ_1
 108 : $P_{2530} = (31, 38, 1, 0)$ lies on line ℓ_0
 109 : $P_{2553} = (54, 38, 1, 0)$ lies on line ℓ_2
 110 : $P_{2584} = (21, 39, 1, 0)$ lies on line ℓ_0
 111 : $P_{2587} = (24, 39, 1, 0)$ lies on line ℓ_2
 112 : $P_{2606} = (43, 39, 1, 0)$ lies on line ℓ_1
 113 : $P_{2645} = (18, 40, 1, 0)$ lies on line ℓ_0
 114 : $P_{2656} = (29, 40, 1, 0)$ lies on line ℓ_1
 115 : $P_{2665} = (38, 40, 1, 0)$ lies on line ℓ_2
 116 : $P_{2699} = (8, 41, 1, 0)$ lies on line ℓ_2
 117 : $P_{2715} = (24, 41, 1, 0)$ lies on line ℓ_0
 118 : $P_{2747} = (56, 41, 1, 0)$ lies on line ℓ_1
 119 : $P_{2761} = (6, 42, 1, 0)$ lies on line ℓ_0
 120 : $P_{2782} = (27, 42, 1, 0)$ lies on line ℓ_2
 121 : $P_{2809} = (54, 42, 1, 0)$ lies on line ℓ_1
 122 : $P_{2831} = (12, 43, 1, 0)$ lies on line ℓ_0
 123 : $P_{2838} = (19, 43, 1, 0)$ lies on line ℓ_1
 124 : $P_{2872} = (53, 43, 1, 0)$ lies on line ℓ_2
 125 : $P_{2925} = (42, 44, 1, 0)$ lies on line ℓ_1
 126 : $P_{2941} = (58, 44, 1, 0)$ lies on line ℓ_0
 127 : $P_{2944} = (61, 44, 1, 0)$ lies on line ℓ_2
 128 : $P_{2962} = (15, 45, 1, 0)$ lies on line ℓ_1
 129 : $P_{2966} = (19, 45, 1, 0)$ lies on line ℓ_2
 130 : $P_{2995} = (48, 45, 1, 0)$ lies on line ℓ_0
 131 : $P_{3012} = (1, 46, 1, 0)$ lies on line ℓ_1
 132 : $P_{3057} = (46, 46, 1, 0)$ lies on line ℓ_0
 133 : $P_{3121} = (46, 47, 1, 0)$ lies on line ℓ_2
 134 : $P_{3151} = (12, 48, 1, 0)$ lies on line ℓ_1
 135 : $P_{3171} = (32, 48, 1, 0)$ lies on line ℓ_0
 136 : $P_{3244} = (41, 49, 1, 0)$ lies on line ℓ_1
 137 : $P_{3245} = (42, 49, 1, 0)$ lies on line ℓ_0
 138 : $P_{3254} = (51, 49, 1, 0)$ lies on line ℓ_2
 139 : $P_{3299} = (32, 50, 1, 0)$ lies on line ℓ_2
 140 : $P_{3306} = (39, 50, 1, 0)$ lies on line ℓ_1
 141 : $P_{3319} = (52, 50, 1, 0)$ lies on line ℓ_0
 142 : $P_{3333} = (2, 51, 1, 0)$ lies on line ℓ_1
 143 : $P_{3345} = (14, 51, 1, 0)$ lies on line ℓ_2
 144 : $P_{3393} = (62, 51, 1, 0)$ lies on line ℓ_0
 145 : $P_{3401} = (6, 52, 1, 0)$ lies on line ℓ_2
 146 : $P_{3403} = (8, 52, 1, 0)$ lies on line ℓ_0
 147 : $P_{3454} = (59, 52, 1, 0)$ lies on line ℓ_1
 148 : $P_{3461} = (2, 53, 1, 0)$ lies on line ℓ_0
 149 : $P_{3489} = (30, 53, 1, 0)$ lies on line ℓ_1
 150 : $P_{3499} = (40, 53, 1, 0)$ lies on line ℓ_2
 151 : $P_{3539} = (16, 54, 1, 0)$ lies on line ℓ_1
 152 : $P_{3551} = (28, 54, 1, 0)$ lies on line ℓ_0
 153 : $P_{3582} = (59, 54, 1, 0)$ lies on line ℓ_2
 154 : $P_{3608} = (21, 55, 1, 0)$ lies on line ℓ_2
 155 : $P_{3640} = (53, 55, 1, 0)$ lies on line ℓ_1
 156 : $P_{3654} = (3, 56, 1, 0)$ lies on line ℓ_1
 157 : $P_{3668} = (17, 56, 1, 0)$ lies on line ℓ_0
 158 : $P_{3694} = (43, 56, 1, 0)$ lies on line ℓ_2
 159 : $P_{3720} = (5, 57, 1, 0)$ lies on line ℓ_2
 160 : $P_{3742} = (27, 57, 1, 0)$ lies on line ℓ_0
 161 : $P_{3753} = (38, 57, 1, 0)$ lies on line ℓ_1
 162 : $P_{3784} = (5, 58, 1, 0)$ lies on line ℓ_0
 163 : $P_{3801} = (22, 58, 1, 0)$ lies on line ℓ_2
 164 : $P_{3819} = (40, 58, 1, 0)$ lies on line ℓ_1
 165 : $P_{3856} = (13, 59, 1, 0)$ lies on line ℓ_1
 166 : $P_{3858} = (15, 59, 1, 0)$ lies on line ℓ_0
 167 : $P_{3899} = (56, 59, 1, 0)$ lies on line ℓ_2
 168 : $P_{3955} = (48, 60, 1, 0)$ lies on line ℓ_2
 169 : $P_{3959} = (52, 60, 1, 0)$ lies on line ℓ_1
 170 : $P_{3964} = (57, 60, 1, 0)$ lies on line ℓ_0
 171 : $P_{3988} = (17, 61, 1, 0)$ lies on line ℓ_1
 172 : $P_{4001} = (30, 61, 1, 0)$ lies on line ℓ_2
 173 : $P_{4022} = (51, 61, 1, 0)$ lies on line ℓ_0
 174 : $P_{4048} = (13, 62, 1, 0)$ lies on line ℓ_2
 175 : $P_{4066} = (31, 62, 1, 0)$ lies on line ℓ_1
 176 : $P_{4080} = (45, 62, 1, 0)$ lies on line ℓ_0
 177 : $P_{4134} = (35, 63, 1, 0)$ lies on line ℓ_2
 178 : $P_{4138} = (39, 63, 1, 0)$ lies on line ℓ_0
 179 : $P_{4157} = (58, 63, 1, 0)$ lies on line ℓ_1
 180 : $P_{4867} = (1, 11, 0, 1)$ lies on line ℓ_8
 181 : $P_{5615} = (45, 22, 0, 1)$ lies on line ℓ_5
 182 : $P_{5642} = (8, 23, 0, 1)$ lies on line ℓ_3
 183 : $P_{6016} = (62, 28, 0, 1)$ lies on line ℓ_{11}
 184 : $P_{6070} = (52, 29, 0, 1)$ lies on line ℓ_7
 185 : $P_{6467} = (1, 36, 0, 1)$ lies on line ℓ_9
 186 : $P_{7171} = (1, 47, 0, 1)$ lies on line ℓ_4
 187 : $P_{7395} = (33, 50, 0, 1)$ lies on line ℓ_6
 188 : $P_{7441} = (15, 51, 0, 1)$ lies on line ℓ_{10}
 189 : $P_{8467} = (18, 3, 1, 1)$ lies on line ℓ_{10}
 190 : $P_{8612} = (35, 5, 1, 1)$ lies on line ℓ_7
 191 : $P_{8898} = (1, 10, 1, 1)$ lies on line ℓ_9
 192 : $P_{9403} = (58, 17, 1, 1)$ lies on line ℓ_3
 193 : $P_{10015} = (30, 27, 1, 1)$ lies on line ℓ_5
 194 : $P_{10626} = (1, 37, 1, 1)$ lies on line ℓ_4
 195 : $P_{10750} = (61, 38, 1, 1)$ lies on line ℓ_6
 196 : $P_{11049} = (40, 43, 1, 1)$ lies on line ℓ_{11}
 197 : $P_{11202} = (1, 46, 1, 1)$ lies on line ℓ_8
 198 : $P_{13163} = (42, 12, 2, 1)$ lies on line ℓ_5
 199 : $P_{13587} = (18, 19, 2, 1)$ lies on line ℓ_{11}
 200 : $P_{13954} = (1, 25, 2, 1)$ lies on line ℓ_9
 201 : $P_{14042} = (25, 26, 2, 1)$ lies on line ℓ_6
 202 : $P_{14094} = (13, 27, 2, 1)$ lies on line ℓ_3
 203 : $P_{14402} = (1, 32, 2, 1)$ lies on line ℓ_8

204 : $P_{15259} = (26, 45, 2, 1)$ lies on line ℓ_7
 205 : $P_{15606} = (53, 50, 2, 1)$ lies on line ℓ_{10}
 206 : $P_{16130} = (1, 59, 2, 1)$ lies on line ℓ_4
 207 : $P_{16538} = (25, 1, 3, 1)$ lies on line ℓ_5
 208 : $P_{16617} = (40, 2, 3, 1)$ lies on line ℓ_{10}
 209 : $P_{16770} = (1, 5, 3, 1)$ lies on line ℓ_8
 210 : $P_{17350} = (5, 14, 3, 1)$ lies on line ℓ_6
 211 : $P_{18368} = (63, 29, 3, 1)$ lies on line ℓ_3
 212 : $P_{18757} = (4, 36, 3, 1)$ lies on line ℓ_{11}
 213 : $P_{19586} = (1, 49, 3, 1)$ lies on line ℓ_4
 214 : $P_{19854} = (13, 53, 3, 1)$ lies on line ℓ_7
 215 : $P_{19970} = (1, 55, 3, 1)$ lies on line ℓ_9
 216 : $P_{20680} = (7, 2, 4, 1)$ lies on line ℓ_{11}
 217 : $P_{20785} = (48, 3, 4, 1)$ lies on line ℓ_6
 218 : $P_{20994} = (1, 7, 4, 1)$ lies on line ℓ_4
 219 : $P_{21507} = (2, 15, 4, 1)$ lies on line ℓ_3
 220 : $P_{22346} = (9, 28, 4, 1)$ lies on line ℓ_7
 221 : $P_{22756} = (35, 34, 4, 1)$ lies on line ℓ_5
 222 : $P_{23707} = (26, 49, 4, 1)$ lies on line ℓ_{10}
 223 : $P_{24386} = (1, 60, 4, 1)$ lies on line ℓ_8
 224 : $P_{24578} = (1, 63, 4, 1)$ lies on line ℓ_9
 225 : $P_{24712} = (7, 1, 5, 1)$ lies on line ℓ_{10}
 226 : $P_{24927} = (30, 4, 5, 1)$ lies on line ℓ_7
 227 : $P_{25265} = (48, 9, 5, 1)$ lies on line ℓ_3
 228 : $P_{25474} = (1, 13, 5, 1)$ lies on line ℓ_4
 229 : $P_{25730} = (1, 17, 5, 1)$ lies on line ℓ_9
 230 : $P_{26157} = (44, 23, 5, 1)$ lies on line ℓ_6
 231 : $P_{26242} = (1, 25, 5, 1)$ lies on line ℓ_8
 232 : $P_{27665} = (16, 47, 5, 1)$ lies on line ℓ_5
 233 : $P_{28050} = (17, 53, 5, 1)$ lies on line ℓ_{11}
 234 : $P_{28866} = (1, 2, 6, 1)$ lies on line ℓ_9
 235 : $P_{28936} = (7, 3, 6, 1)$ lies on line ℓ_3
 236 : $P_{29612} = (43, 13, 6, 1)$ lies on line ℓ_{11}
 237 : $P_{29954} = (1, 19, 6, 1)$ lies on line ℓ_4
 238 : $P_{30210} = (1, 23, 6, 1)$ lies on line ℓ_8
 239 : $P_{31497} = (8, 43, 6, 1)$ lies on line ℓ_6
 240 : $P_{31592} = (39, 44, 6, 1)$ lies on line ℓ_7
 241 : $P_{31841} = (32, 48, 6, 1)$ lies on line ℓ_{10}
 242 : $P_{32357} = (36, 56, 6, 1)$ lies on line ℓ_5
 243 : $P_{32894} = (61, 0, 7, 1)$ lies on line ℓ_{10}
 244 : $P_{33206} = (53, 5, 7, 1)$ lies on line ℓ_3
 245 : $P_{34434} = (1, 25, 7, 1)$ lies on line ℓ_4
 246 : $P_{35650} = (1, 44, 7, 1)$ lies on line ℓ_9
 247 : $P_{36034} = (1, 50, 7, 1)$ lies on line ℓ_8
 248 : $P_{36209} = (48, 52, 7, 1)$ lies on line ℓ_7
 249 : $P_{36248} = (23, 53, 7, 1)$ lies on line ℓ_5
 250 : $P_{36606} = (61, 58, 7, 1)$ lies on line ℓ_{11}
 251 : $P_{36885} = (20, 63, 7, 1)$ lies on line ℓ_6
 252 : $P_{37186} = (1, 4, 8, 1)$ lies on line ℓ_8
 253 : $P_{38082} = (1, 18, 8, 1)$ lies on line ℓ_9
 254 : $P_{38850} = (1, 30, 8, 1)$ lies on line ℓ_4
 255 : $P_{38960} = (47, 31, 8, 1)$ lies on line ℓ_7
 256 : $P_{38962} = (49, 31, 8, 1)$ lies on line ℓ_5
 257 : $P_{39022} = (45, 32, 8, 1)$ lies on line ℓ_{11}

258 : $P_{39453} = (28, 39, 8, 1)$ lies on line ℓ_3
 259 : $P_{40068} = (3, 49, 8, 1)$ lies on line ℓ_6
 260 : $P_{40486} = (37, 55, 8, 1)$ lies on line ℓ_{10}
 261 : $P_{42179} = (2, 18, 9, 1)$ lies on line ℓ_5
 262 : $P_{42306} = (1, 20, 9, 1)$ lies on line ℓ_4
 263 : $P_{42556} = (59, 23, 9, 1)$ lies on line ℓ_{11}
 264 : $P_{43138} = (1, 33, 9, 1)$ lies on line ℓ_8
 265 : $P_{43183} = (46, 33, 9, 1)$ lies on line ℓ_3
 266 : $P_{43424} = (31, 37, 9, 1)$ lies on line ℓ_6
 267 : $P_{44866} = (1, 60, 9, 1)$ lies on line ℓ_9
 268 : $P_{45495} = (54, 5, 10, 1)$ lies on line ℓ_5
 269 : $P_{45762} = (1, 10, 10, 1)$ lies on line ℓ_4
 270 : $P_{46780} = (59, 25, 10, 1)$ lies on line ℓ_6
 271 : $P_{47898} = (25, 43, 10, 1)$ lies on line ℓ_3
 272 : $P_{48608} = (31, 54, 10, 1)$ lies on line ℓ_{10}
 273 : $P_{49218} = (1, 0, 11, 1)$ lies on line ℓ_4
 274 : $P_{49282} = (1, 1, 11, 1)$ lies on line ℓ_9
 275 : $P_{49603} = (2, 6, 11, 1)$ lies on line ℓ_{10}
 276 : $P_{49734} = (5, 8, 11, 1)$ lies on line ℓ_5
 277 : $P_{49858} = (1, 10, 11, 1)$ lies on line ℓ_8
 278 : $P_{50088} = (39, 13, 11, 1)$ lies on line ℓ_6
 279 : $P_{50776} = (23, 24, 11, 1)$ lies on line ℓ_{11}
 280 : $P_{52140} = (43, 45, 11, 1)$ lies on line ℓ_3
 281 : $P_{52759} = (22, 55, 11, 1)$ lies on line ℓ_7
 282 : $P_{53331} = (18, 0, 12, 1)$ lies on line ℓ_6
 283 : $P_{53890} = (1, 9, 12, 1)$ lies on line ℓ_9
 284 : $P_{55251} = (18, 30, 12, 1)$ lies on line ℓ_7
 285 : $P_{56128} = (63, 43, 12, 1)$ lies on line ℓ_5
 286 : $P_{56578} = (1, 51, 12, 1)$ lies on line ℓ_8
 287 : $P_{56753} = (48, 53, 12, 1)$ lies on line ℓ_{10}
 288 : $P_{56770} = (1, 54, 12, 1)$ lies on line ℓ_4
 289 : $P_{57301} = (20, 62, 12, 1)$ lies on line ℓ_{11}
 290 : $P_{57367} = (22, 63, 12, 1)$ lies on line ℓ_3
 291 : $P_{57774} = (45, 5, 13, 1)$ lies on line ℓ_{10}
 292 : $P_{57798} = (5, 6, 13, 1)$ lies on line ℓ_7
 293 : $P_{57987} = (2, 9, 13, 1)$ lies on line ℓ_{11}
 294 : $P_{58703} = (14, 20, 13, 1)$ lies on line ℓ_6
 295 : $P_{58818} = (1, 22, 13, 1)$ lies on line ℓ_8
 296 : $P_{59853} = (12, 38, 13, 1)$ lies on line ℓ_5
 297 : $P_{59906} = (1, 39, 13, 1)$ lies on line ℓ_9
 298 : $P_{61093} = (36, 57, 13, 1)$ lies on line ℓ_3
 299 : $P_{61250} = (1, 60, 13, 1)$ lies on line ℓ_4
 300 : $P_{63042} = (1, 24, 14, 1)$ lies on line ℓ_8
 301 : $P_{63682} = (1, 34, 14, 1)$ lies on line ℓ_4
 302 : $P_{64107} = (42, 40, 14, 1)$ lies on line ℓ_6
 303 : $P_{64509} = (60, 46, 14, 1)$ lies on line ℓ_7
 304 : $P_{64788} = (19, 51, 14, 1)$ lies on line ℓ_3
 305 : $P_{64834} = (1, 52, 14, 1)$ lies on line ℓ_9
 306 : $P_{64843} = (10, 52, 14, 1)$ lies on line ℓ_{10}
 307 : $P_{65880} = (23, 4, 15, 1)$ lies on line ℓ_{10}
 308 : $P_{66031} = (46, 6, 15, 1)$ lies on line ℓ_{11}
 309 : $P_{67266} = (1, 26, 15, 1)$ lies on line ℓ_9
 310 : $P_{68162} = (1, 40, 15, 1)$ lies on line ℓ_4
 311 : $P_{69026} = (33, 53, 15, 1)$ lies on line ℓ_3

312 : $P_{69100} = (43, 54, 15, 1)$ lies on line ℓ_7
 313 : $P_{69452} = (11, 60, 15, 1)$ lies on line ℓ_5
 314 : $P_{69495} = (54, 60, 15, 1)$ lies on line ℓ_6
 315 : $P_{69506} = (1, 61, 15, 1)$ lies on line ℓ_8
 316 : $P_{69974} = (21, 4, 16, 1)$ lies on line ℓ_5
 317 : $P_{70041} = (24, 5, 16, 1)$ lies on line ℓ_{11}
 318 : $P_{71042} = (1, 21, 16, 1)$ lies on line ℓ_8
 319 : $P_{71137} = (32, 22, 16, 1)$ lies on line ℓ_3
 320 : $P_{71299} = (2, 25, 16, 1)$ lies on line ℓ_7
 321 : $P_{72322} = (1, 41, 16, 1)$ lies on line ℓ_9
 322 : $P_{72514} = (1, 44, 16, 1)$ lies on line ℓ_4
 323 : $P_{73029} = (4, 52, 16, 1)$ lies on line ℓ_6
 324 : $P_{73531} = (58, 59, 16, 1)$ lies on line ℓ_{10}
 325 : $P_{73878} = (21, 1, 17, 1)$ lies on line ℓ_7
 326 : $P_{74242} = (1, 7, 17, 1)$ lies on line ℓ_9
 327 : $P_{74407} = (38, 9, 17, 1)$ lies on line ℓ_5
 328 : $P_{74536} = (39, 11, 17, 1)$ lies on line ℓ_{10}
 329 : $P_{74835} = (18, 16, 17, 1)$ lies on line ℓ_3
 330 : $P_{75865} = (24, 32, 17, 1)$ lies on line ℓ_6
 331 : $P_{76226} = (1, 38, 17, 1)$ lies on line ℓ_4
 332 : $P_{76866} = (1, 48, 17, 1)$ lies on line ℓ_8
 333 : $P_{77007} = (14, 50, 17, 1)$ lies on line ℓ_{11}
 334 : $P_{78581} = (52, 10, 18, 1)$ lies on line ℓ_{11}
 335 : $P_{79170} = (1, 20, 18, 1)$ lies on line ℓ_9
 336 : $P_{79590} = (37, 26, 18, 1)$ lies on line ℓ_3
 337 : $P_{79741} = (60, 28, 18, 1)$ lies on line ℓ_6
 338 : $P_{79827} = (18, 30, 18, 1)$ lies on line ℓ_5
 339 : $P_{80557} = (44, 41, 18, 1)$ lies on line ℓ_7
 340 : $P_{81474} = (1, 56, 18, 1)$ lies on line ℓ_4
 341 : $P_{81601} = (0, 58, 18, 1)$ lies on line ℓ_{10}
 342 : $P_{81858} = (1, 62, 18, 1)$ lies on line ℓ_8
 343 : $P_{82529} = (32, 8, 19, 1)$ lies on line ℓ_6
 344 : $P_{82654} = (29, 10, 19, 1)$ lies on line ℓ_{10}
 345 : $P_{83234} = (33, 19, 19, 1)$ lies on line ℓ_5
 346 : $P_{83714} = (1, 27, 19, 1)$ lies on line ℓ_8
 347 : $P_{83800} = (23, 28, 19, 1)$ lies on line ℓ_3
 348 : $P_{85180} = (59, 49, 19, 1)$ lies on line ℓ_7
 349 : $P_{85186} = (1, 50, 19, 1)$ lies on line ℓ_4
 350 : $P_{85698} = (1, 58, 19, 1)$ lies on line ℓ_9
 351 : $P_{85923} = (34, 61, 19, 1)$ lies on line ℓ_{11}
 352 : $P_{86338} = (1, 4, 20, 1)$ lies on line ℓ_4
 353 : $P_{86422} = (21, 5, 20, 1)$ lies on line ℓ_6
 354 : $P_{87019} = (42, 14, 20, 1)$ lies on line ℓ_3
 355 : $P_{87680} = (63, 24, 20, 1)$ lies on line ℓ_7
 356 : $P_{87842} = (33, 27, 20, 1)$ lies on line ℓ_{11}
 357 : $P_{88258} = (1, 34, 20, 1)$ lies on line ℓ_8
 358 : $P_{89180} = (27, 48, 20, 1)$ lies on line ℓ_5
 359 : $P_{89282} = (1, 50, 20, 1)$ lies on line ℓ_9
 360 : $P_{89776} = (47, 57, 20, 1)$ lies on line ℓ_{10}
 361 : $P_{90217} = (40, 0, 21, 1)$ lies on line ℓ_7
 362 : $P_{90626} = (1, 7, 21, 1)$ lies on line ℓ_8
 363 : $P_{90713} = (24, 8, 21, 1)$ lies on line ℓ_3
 364 : $P_{90803} = (50, 9, 21, 1)$ lies on line ℓ_{10}
 365 : $P_{91074} = (1, 14, 21, 1)$ lies on line ℓ_4

366 : $P_{91274} = (9, 17, 21, 1)$ lies on line ℓ_6
 367 : $P_{91970} = (1, 28, 21, 1)$ lies on line ℓ_9
 368 : $P_{93048} = (55, 44, 21, 1)$ lies on line ℓ_{11}
 369 : $P_{94121} = (40, 61, 21, 1)$ lies on line ℓ_5
 370 : $P_{94448} = (47, 2, 22, 1)$ lies on line ℓ_3
 371 : $P_{94850} = (1, 9, 22, 1)$ lies on line ℓ_8
 372 : $P_{95234} = (1, 15, 22, 1)$ lies on line ℓ_9
 373 : $P_{95298} = (1, 16, 22, 1)$ lies on line ℓ_4
 374 : $P_{95566} = (13, 20, 22, 1)$ lies on line ℓ_{11}
 375 : $P_{96850} = (17, 40, 22, 1)$ lies on line ℓ_7
 376 : $P_{96989} = (28, 42, 22, 1)$ lies on line ℓ_5
 377 : $P_{97198} = (45, 45, 22, 1)$ lies on line ℓ_6
 378 : $P_{97878} = (21, 56, 22, 1)$ lies on line ℓ_{10}
 379 : $P_{98654} = (29, 4, 23, 1)$ lies on line ℓ_3
 380 : $P_{98889} = (8, 8, 23, 1)$ lies on line ℓ_{10}
 381 : $P_{100034} = (1, 26, 23, 1)$ lies on line ℓ_4
 382 : $P_{100482} = (1, 33, 23, 1)$ lies on line ℓ_9
 383 : $P_{100636} = (27, 35, 23, 1)$ lies on line ℓ_{11}
 384 : $P_{100912} = (47, 39, 23, 1)$ lies on line ℓ_5
 385 : $P_{101186} = (1, 44, 23, 1)$ lies on line ℓ_8
 386 : $P_{101447} = (6, 48, 23, 1)$ lies on line ℓ_7
 387 : $P_{102066} = (49, 57, 23, 1)$ lies on line ℓ_6
 388 : $P_{103306} = (9, 13, 24, 1)$ lies on line ℓ_5
 389 : $P_{104130} = (1, 26, 24, 1)$ lies on line ℓ_8
 390 : $P_{104218} = (25, 27, 24, 1)$ lies on line ℓ_7
 391 : $P_{104322} = (1, 29, 24, 1)$ lies on line ℓ_4
 392 : $P_{104450} = (1, 31, 24, 1)$ lies on line ℓ_9
 393 : $P_{104949} = (52, 38, 24, 1)$ lies on line ℓ_3
 394 : $P_{106023} = (38, 55, 24, 1)$ lies on line ℓ_6
 395 : $P_{106124} = (11, 57, 24, 1)$ lies on line ℓ_{11}
 396 : $P_{106513} = (16, 63, 24, 1)$ lies on line ℓ_{10}
 397 : $P_{106619} = (58, 0, 25, 1)$ lies on line ℓ_5
 398 : $P_{106767} = (14, 3, 25, 1)$ lies on line ℓ_7
 399 : $P_{107486} = (29, 14, 25, 1)$ lies on line ℓ_{11}
 400 : $P_{107534} = (13, 15, 25, 1)$ lies on line ℓ_{10}
 401 : $P_{108034} = (1, 23, 25, 1)$ lies on line ℓ_4
 402 : $P_{108615} = (6, 32, 25, 1)$ lies on line ℓ_3
 403 : $P_{108859} = (58, 35, 25, 1)$ lies on line ℓ_6
 404 : $P_{109698} = (1, 49, 25, 1)$ lies on line ℓ_9
 405 : $P_{110594} = (1, 63, 25, 1)$ lies on line ℓ_8
 406 : $P_{111234} = (1, 9, 26, 1)$ lies on line ℓ_4
 407 : $P_{112143} = (14, 23, 26, 1)$ lies on line ℓ_5
 408 : $P_{112671} = (30, 31, 26, 1)$ lies on line ℓ_6
 409 : $P_{112834} = (1, 34, 26, 1)$ lies on line ℓ_9
 410 : $P_{113394} = (49, 42, 26, 1)$ lies on line ℓ_3
 411 : $P_{113464} = (55, 43, 26, 1)$ lies on line ℓ_7
 412 : $P_{113794} = (1, 49, 26, 1)$ lies on line ℓ_8
 413 : $P_{114152} = (39, 54, 26, 1)$ lies on line ℓ_{11}
 414 : $P_{114667} = (42, 62, 26, 1)$ lies on line ℓ_{10}
 415 : $P_{114866} = (49, 1, 27, 1)$ lies on line ℓ_{11}
 416 : $P_{114946} = (1, 3, 27, 1)$ lies on line ℓ_4
 417 : $P_{115459} = (2, 11, 27, 1)$ lies on line ℓ_6
 418 : $P_{115522} = (1, 12, 27, 1)$ lies on line ℓ_9
 419 : $P_{115704} = (55, 14, 27, 1)$ lies on line ℓ_{10}

420 : $P_{116034} = (1, 20, 27, 1)$ lies on line ℓ_8
 421 : $P_{116478} = (61, 26, 27, 1)$ lies on line ℓ_5
 422 : $P_{117572} = (3, 44, 27, 1)$ lies on line ℓ_3
 423 : $P_{118049} = (32, 51, 27, 1)$ lies on line ℓ_7
 424 : $P_{119106} = (1, 4, 28, 1)$ lies on line ℓ_9
 425 : $P_{119288} = (55, 6, 28, 1)$ lies on line ℓ_6
 426 : $P_{120549} = (36, 26, 28, 1)$ lies on line ℓ_7
 427 : $P_{121395} = (50, 39, 28, 1)$ lies on line ℓ_{11}
 428 : $P_{121730} = (1, 45, 28, 1)$ lies on line ℓ_8
 429 : $P_{122242} = (1, 53, 28, 1)$ lies on line ℓ_4
 430 : $P_{122504} = (7, 57, 28, 1)$ lies on line ℓ_5
 431 : $P_{122758} = (5, 61, 28, 1)$ lies on line ℓ_{10}
 432 : $P_{122879} = (62, 62, 28, 1)$ lies on line ℓ_3
 433 : $P_{123124} = (51, 2, 29, 1)$ lies on line ℓ_7
 434 : $P_{123458} = (1, 8, 29, 1)$ lies on line ℓ_8
 435 : $P_{123801} = (24, 13, 29, 1)$ lies on line ℓ_{10}
 436 : $P_{124005} = (36, 16, 29, 1)$ lies on line ℓ_{11}
 437 : $P_{124140} = (43, 18, 29, 1)$ lies on line ℓ_6
 438 : $P_{125634} = (1, 42, 29, 1)$ lies on line ℓ_9
 439 : $P_{126325} = (52, 52, 29, 1)$ lies on line ℓ_5
 440 : $P_{126541} = (12, 56, 29, 1)$ lies on line ℓ_3
 441 : $P_{126978} = (1, 63, 29, 1)$ lies on line ℓ_4
 442 : $P_{127426} = (1, 6, 30, 1)$ lies on line ℓ_8
 443 : $P_{129154} = (1, 33, 30, 1)$ lies on line ℓ_4
 444 : $P_{129281} = (0, 35, 30, 1)$ lies on line ℓ_5
 445 : $P_{129631} = (30, 40, 30, 1)$ lies on line ℓ_{11}
 446 : $P_{129739} = (10, 42, 30, 1)$ lies on line ℓ_7
 447 : $P_{130000} = (15, 46, 30, 1)$ lies on line ℓ_6
 448 : $P_{130300} = (59, 50, 30, 1)$ lies on line ℓ_3
 449 : $P_{130690} = (1, 57, 30, 1)$ lies on line ℓ_9
 450 : $P_{130944} = (63, 60, 30, 1)$ lies on line ℓ_{10}
 451 : $P_{131939} = (34, 12, 31, 1)$ lies on line ℓ_{10}
 452 : $P_{132610} = (1, 23, 31, 1)$ lies on line ℓ_9
 453 : $P_{133129} = (8, 31, 31, 1)$ lies on line ℓ_{11}
 454 : $P_{133378} = (1, 35, 31, 1)$ lies on line ℓ_8
 455 : $P_{133890} = (1, 43, 31, 1)$ lies on line ℓ_4
 456 : $P_{134132} = (51, 46, 31, 1)$ lies on line ℓ_5
 457 : $P_{134366} = (29, 50, 31, 1)$ lies on line ℓ_7
 458 : $P_{134474} = (9, 52, 31, 1)$ lies on line ℓ_3
 459 : $P_{134868} = (19, 58, 31, 1)$ lies on line ℓ_6
 460 : $P_{137477} = (4, 35, 32, 1)$ lies on line ℓ_{10}
 461 : $P_{137858} = (1, 41, 32, 1)$ lies on line ℓ_4
 462 : $P_{138196} = (19, 46, 32, 1)$ lies on line ℓ_{11}
 463 : $P_{138493} = (60, 50, 32, 1)$ lies on line ℓ_5
 464 : $P_{138754} = (1, 55, 32, 1)$ lies on line ℓ_8
 465 : $P_{139202} = (1, 62, 32, 1)$ lies on line ℓ_9
 466 : $P_{139211} = (10, 62, 32, 1)$ lies on line ℓ_6
 467 : $P_{140207} = (46, 13, 33, 1)$ lies on line ℓ_7
 468 : $P_{140354} = (1, 16, 33, 1)$ lies on line ℓ_9
 469 : $P_{140482} = (1, 18, 33, 1)$ lies on line ℓ_8
 470 : $P_{140556} = (11, 19, 33, 1)$ lies on line ℓ_3
 471 : $P_{140570} = (25, 19, 33, 1)$ lies on line ℓ_{10}
 472 : $P_{140934} = (5, 25, 33, 1)$ lies on line ℓ_{11}
 473 : $P_{141570} = (1, 35, 33, 1)$ lies on line ℓ_4

474 : $P_{142039} = (22, 42, 33, 1)$ lies on line ℓ_6
 475 : $P_{143376} = (15, 63, 33, 1)$ lies on line ℓ_5
 476 : $P_{143618} = (1, 3, 34, 1)$ lies on line ℓ_9
 477 : $P_{144883} = (50, 22, 34, 1)$ lies on line ℓ_6
 478 : $P_{145085} = (60, 25, 34, 1)$ lies on line ℓ_3
 479 : $P_{145218} = (1, 28, 34, 1)$ lies on line ℓ_8
 480 : $P_{145600} = (63, 33, 34, 1)$ lies on line ℓ_{11}
 481 : $P_{145663} = (62, 34, 34, 1)$ lies on line ℓ_{10}
 482 : $P_{145816} = (23, 37, 34, 1)$ lies on line ℓ_7
 483 : $P_{146044} = (59, 40, 34, 1)$ lies on line ℓ_5
 484 : $P_{147330} = (1, 61, 34, 1)$ lies on line ℓ_4
 485 : $P_{147695} = (46, 2, 35, 1)$ lies on line ℓ_6
 486 : $P_{148708} = (35, 18, 35, 1)$ lies on line ℓ_{10}
 487 : $P_{148970} = (41, 22, 35, 1)$ lies on line ℓ_{11}
 488 : $P_{149519} = (14, 31, 35, 1)$ lies on line ℓ_3
 489 : $P_{149897} = (8, 37, 35, 1)$ lies on line ℓ_5
 490 : $P_{150402} = (1, 45, 35, 1)$ lies on line ℓ_9
 491 : $P_{151042} = (1, 55, 35, 1)$ lies on line ℓ_4
 492 : $P_{151170} = (1, 57, 35, 1)$ lies on line ℓ_8
 493 : $P_{151425} = (0, 61, 35, 1)$ lies on line ℓ_7
 494 : $P_{151618} = (1, 0, 36, 1)$ lies on line ℓ_8
 495 : $P_{151682} = (1, 1, 36, 1)$ lies on line ℓ_4
 496 : $P_{152051} = (50, 6, 36, 1)$ lies on line ℓ_5
 497 : $P_{152500} = (51, 13, 36, 1)$ lies on line ℓ_3
 498 : $P_{152604} = (27, 15, 36, 1)$ lies on line ℓ_6
 499 : $P_{152901} = (4, 20, 36, 1)$ lies on line ℓ_7
 500 : $P_{153746} = (17, 33, 36, 1)$ lies on line ℓ_{10}
 501 : $P_{153986} = (1, 37, 36, 1)$ lies on line ℓ_9
 502 : $P_{154731} = (42, 48, 36, 1)$ lies on line ℓ_{11}
 503 : $P_{156221} = (60, 7, 37, 1)$ lies on line ℓ_{11}
 504 : $P_{156500} = (19, 12, 37, 1)$ lies on line ℓ_7
 505 : $P_{156813} = (12, 17, 37, 1)$ lies on line ℓ_{10}
 506 : $P_{157448} = (7, 27, 37, 1)$ lies on line ℓ_6
 507 : $P_{158082} = (1, 37, 37, 1)$ lies on line ℓ_8
 508 : $P_{159927} = (54, 1, 38, 1)$ lies on line ℓ_3
 509 : $P_{161154} = (1, 21, 38, 1)$ lies on line ℓ_4
 510 : $P_{161346} = (1, 24, 38, 1)$ lies on line ℓ_9
 511 : $P_{161654} = (53, 28, 38, 1)$ lies on line ℓ_5
 512 : $P_{161900} = (43, 32, 38, 1)$ lies on line ℓ_{10}
 513 : $P_{162155} = (42, 36, 38, 1)$ lies on line ℓ_7
 514 : $P_{162340} = (35, 39, 38, 1)$ lies on line ℓ_6
 515 : $P_{162562} = (1, 43, 38, 1)$ lies on line ℓ_8
 516 : $P_{163847} = (6, 63, 38, 1)$ lies on line ℓ_{11}
 517 : $P_{164357} = (4, 7, 39, 1)$ lies on line ℓ_3
 518 : $P_{164433} = (16, 8, 39, 1)$ lies on line ℓ_{11}
 519 : $P_{164802} = (1, 14, 39, 1)$ lies on line ℓ_8
 520 : $P_{164983} = (54, 16, 39, 1)$ lies on line ℓ_{10}
 521 : $P_{164999} = (6, 17, 39, 1)$ lies on line ℓ_5
 522 : $P_{165890} = (1, 31, 39, 1)$ lies on line ℓ_4
 523 : $P_{167232} = (63, 51, 39, 1)$ lies on line ℓ_6
 524 : $P_{167362} = (1, 54, 39, 1)$ lies on line ℓ_9
 525 : $P_{167806} = (61, 60, 39, 1)$ lies on line ℓ_7
 526 : $P_{168514} = (1, 8, 40, 1)$ lies on line ℓ_9
 527 : $P_{169153} = (0, 18, 40, 1)$ lies on line ℓ_{11}

528 : $P_{169507} = (34, 23, 40, 1)$ lies on line ℓ_7
 529 : $P_{169538} = (1, 24, 40, 1)$ lies on line ℓ_4
 530 : $P_{170414} = (45, 37, 40, 1)$ lies on line ℓ_3
 531 : $P_{170543} = (46, 39, 40, 1)$ lies on line ℓ_{10}
 532 : $P_{171586} = (1, 56, 40, 1)$ lies on line ℓ_8
 533 : $P_{171809} = (32, 59, 40, 1)$ lies on line ℓ_5
 534 : $P_{171945} = (40, 61, 40, 1)$ lies on line ℓ_6
 535 : $P_{173110} = (53, 15, 41, 1)$ lies on line ℓ_7
 536 : $P_{173250} = (1, 18, 41, 1)$ lies on line ℓ_4
 537 : $P_{173620} = (51, 23, 41, 1)$ lies on line ℓ_{10}
 538 : $P_{173954} = (1, 29, 41, 1)$ lies on line ℓ_8
 539 : $P_{174368} = (31, 35, 41, 1)$ lies on line ℓ_3
 540 : $P_{174487} = (22, 37, 41, 1)$ lies on line ℓ_{11}
 541 : $P_{174530} = (1, 38, 41, 1)$ lies on line ℓ_9
 542 : $P_{174773} = (52, 41, 41, 1)$ lies on line ℓ_6
 543 : $P_{175572} = (19, 54, 41, 1)$ lies on line ℓ_5
 544 : $P_{176962} = (1, 12, 42, 1)$ lies on line ℓ_4
 545 : $P_{177410} = (1, 19, 42, 1)$ lies on line ℓ_8
 546 : $P_{177553} = (16, 21, 42, 1)$ lies on line ℓ_6
 547 : $P_{178093} = (44, 29, 42, 1)$ lies on line ℓ_{11}
 548 : $P_{178344} = (39, 33, 42, 1)$ lies on line ℓ_5
 549 : $P_{178645} = (20, 38, 42, 1)$ lies on line ℓ_{10}
 550 : $P_{178701} = (12, 39, 42, 1)$ lies on line ℓ_7
 551 : $P_{178857} = (40, 41, 42, 1)$ lies on line ℓ_3
 552 : $P_{179586} = (1, 53, 42, 1)$ lies on line ℓ_9
 553 : $P_{180365} = (12, 1, 43, 1)$ lies on line ℓ_6
 554 : $P_{180674} = (1, 6, 43, 1)$ lies on line ℓ_4
 555 : $P_{181706} = (9, 22, 43, 1)$ lies on line ℓ_{10}
 556 : $P_{182018} = (1, 27, 43, 1)$ lies on line ℓ_9
 557 : $P_{183035} = (58, 42, 43, 1)$ lies on line ℓ_{11}
 558 : $P_{183125} = (20, 44, 43, 1)$ lies on line ℓ_5
 559 : $P_{183323} = (26, 47, 43, 1)$ lies on line ℓ_3
 560 : $P_{183746} = (1, 54, 43, 1)$ lies on line ℓ_8
 561 : $P_{184348} = (27, 63, 43, 1)$ lies on line ℓ_7
 562 : $P_{185346} = (1, 15, 44, 1)$ lies on line ℓ_8
 563 : $P_{185391} = (46, 15, 44, 1)$ lies on line ℓ_5
 564 : $P_{185602} = (1, 19, 44, 1)$ lies on line ℓ_9
 565 : $P_{185824} = (31, 22, 44, 1)$ lies on line ℓ_7
 566 : $P_{186812} = (59, 37, 44, 1)$ lies on line ℓ_{10}
 567 : $P_{187458} = (1, 48, 44, 1)$ lies on line ℓ_4
 568 : $P_{188328} = (39, 61, 44, 1)$ lies on line ℓ_3
 569 : $P_{188638} = (29, 2, 45, 1)$ lies on line ℓ_5
 570 : $P_{189385} = (8, 14, 45, 1)$ lies on line ℓ_7
 571 : $P_{189863} = (38, 21, 45, 1)$ lies on line ℓ_{10}
 572 : $P_{190054} = (37, 24, 45, 1)$ lies on line ℓ_6
 573 : $P_{191170} = (1, 42, 45, 1)$ lies on line ℓ_8
 574 : $P_{192194} = (1, 58, 45, 1)$ lies on line ℓ_4
 575 : $P_{192278} = (21, 59, 45, 1)$ lies on line ℓ_3
 576 : $P_{192304} = (47, 59, 45, 1)$ lies on line ℓ_{11}
 577 : $P_{192386} = (1, 61, 45, 1)$ lies on line ℓ_9
 578 : $P_{192790} = (21, 3, 46, 1)$ lies on line ℓ_{11}
 579 : $P_{193962} = (41, 21, 46, 1)$ lies on line ℓ_5
 580 : $P_{195058} = (49, 38, 46, 1)$ lies on line ℓ_7
 581 : $P_{195522} = (1, 46, 46, 1)$ lies on line ℓ_9

582 : $P_{195747} = (34, 49, 46, 1)$ lies on line ℓ_3
 583 : $P_{196674} = (1, 0, 47, 1)$ lies on line ℓ_9
 584 : $P_{196738} = (1, 1, 47, 1)$ lies on line ℓ_8
 585 : $P_{197981} = (28, 20, 47, 1)$ lies on line ℓ_{10}
 586 : $P_{198235} = (26, 24, 47, 1)$ lies on line ℓ_5
 587 : $P_{199618} = (1, 46, 47, 1)$ lies on line ℓ_4
 588 : $P_{199774} = (29, 48, 47, 1)$ lies on line ℓ_6
 589 : $P_{200004} = (3, 52, 47, 1)$ lies on line ℓ_{11}
 590 : $P_{200209} = (16, 55, 47, 1)$ lies on line ℓ_3
 591 : $P_{200679} = (38, 62, 47, 1)$ lies on line ℓ_7
 592 : $P_{201872} = (15, 17, 48, 1)$ lies on line ℓ_7
 593 : $P_{202066} = (17, 20, 48, 1)$ lies on line ℓ_3
 594 : $P_{202821} = (4, 32, 48, 1)$ lies on line ℓ_5
 595 : $P_{203394} = (1, 41, 48, 1)$ lies on line ℓ_8
 596 : $P_{203458} = (1, 42, 48, 1)$ lies on line ℓ_4
 597 : $P_{203570} = (49, 43, 48, 1)$ lies on line ℓ_{10}
 598 : $P_{204034} = (1, 51, 48, 1)$ lies on line ℓ_9
 599 : $P_{204342} = (53, 55, 48, 1)$ lies on line ℓ_{11}
 600 : $P_{204400} = (47, 56, 48, 1)$ lies on line ℓ_6
 601 : $P_{204900} = (35, 0, 49, 1)$ lies on line ℓ_{11}
 602 : $P_{205465} = (24, 9, 49, 1)$ lies on line ℓ_7
 603 : $P_{205634} = (1, 12, 49, 1)$ lies on line ℓ_8
 604 : $P_{206052} = (35, 18, 49, 1)$ lies on line ℓ_3
 605 : $P_{206637} = (44, 27, 49, 1)$ lies on line ℓ_{10}
 606 : $P_{206722} = (1, 29, 49, 1)$ lies on line ℓ_9
 607 : $P_{206914} = (1, 32, 49, 1)$ lies on line ℓ_4
 608 : $P_{207732} = (51, 44, 49, 1)$ lies on line ℓ_6
 609 : $P_{207800} = (55, 45, 49, 1)$ lies on line ℓ_5
 610 : $P_{209090} = (1, 2, 50, 1)$ lies on line ℓ_8
 611 : $P_{209858} = (1, 14, 50, 1)$ lies on line ℓ_9
 612 : $P_{210008} = (23, 16, 50, 1)$ lies on line ℓ_6
 613 : $P_{210517} = (20, 24, 50, 1)$ lies on line ℓ_3
 614 : $P_{211106} = (33, 33, 50, 1)$ lies on line ℓ_7
 615 : $P_{211660} = (11, 42, 50, 1)$ lies on line ℓ_{10}
 616 : $P_{212570} = (25, 56, 50, 1)$ lies on line ℓ_{11}
 617 : $P_{212676} = (3, 58, 50, 1)$ lies on line ℓ_5
 618 : $P_{212930} = (1, 62, 50, 1)$ lies on line ℓ_4
 619 : $P_{213324} = (11, 4, 51, 1)$ lies on line ℓ_6
 620 : $P_{214032} = (15, 15, 51, 1)$ lies on line ℓ_{11}
 621 : $P_{214743} = (22, 26, 51, 1)$ lies on line ℓ_{10}
 622 : $P_{215015} = (38, 30, 51, 1)$ lies on line ℓ_3
 623 : $P_{215106} = (1, 32, 51, 1)$ lies on line ℓ_9
 624 : $P_{215554} = (1, 39, 51, 1)$ lies on line ℓ_8
 625 : $P_{216386} = (1, 52, 51, 1)$ lies on line ℓ_4
 626 : $P_{216625} = (48, 55, 51, 1)$ lies on line ℓ_5
 627 : $P_{216759} = (54, 57, 51, 1)$ lies on line ℓ_7
 628 : $P_{217282} = (1, 2, 52, 1)$ lies on line ℓ_4
 629 : $P_{217791} = (62, 9, 52, 1)$ lies on line ℓ_6
 630 : $P_{217948} = (27, 12, 52, 1)$ lies on line ℓ_3
 631 : $P_{218227} = (50, 16, 52, 1)$ lies on line ℓ_7
 632 : $P_{218443} = (10, 20, 52, 1)$ lies on line ℓ_5
 633 : $P_{219074} = (1, 30, 52, 1)$ lies on line ℓ_8
 634 : $P_{219714} = (1, 40, 52, 1)$ lies on line ℓ_9
 635 : $P_{219789} = (12, 41, 52, 1)$ lies on line ℓ_{11}

636 : $P_{219813} = (36, 41, 52, 1)$ lies on line ℓ_{10}
 637 : $P_{221634} = (1, 6, 53, 1)$ lies on line ℓ_9
 638 : $P_{221762} = (1, 8, 53, 1)$ lies on line ℓ_4
 639 : $P_{221798} = (37, 8, 53, 1)$ lies on line ℓ_7
 640 : $P_{221930} = (41, 10, 53, 1)$ lies on line ℓ_3
 641 : $P_{223139} = (34, 29, 53, 1)$ lies on line ℓ_6
 642 : $P_{223195} = (26, 30, 53, 1)$ lies on line ℓ_{11}
 643 : $P_{225026} = (1, 59, 53, 1)$ lies on line ℓ_8
 644 : $P_{225375} = (30, 0, 54, 1)$ lies on line ℓ_3
 645 : $P_{226254} = (13, 14, 54, 1)$ lies on line ℓ_5
 646 : $P_{226690} = (1, 21, 54, 1)$ lies on line ℓ_9
 647 : $P_{226754} = (1, 22, 54, 1)$ lies on line ℓ_4
 648 : $P_{227421} = (28, 32, 54, 1)$ lies on line ℓ_7
 649 : $P_{227463} = (6, 33, 54, 1)$ lies on line ℓ_6
 650 : $P_{227809} = (32, 38, 54, 1)$ lies on line ℓ_{11}
 651 : $P_{227935} = (30, 40, 54, 1)$ lies on line ℓ_{10}
 652 : $P_{228738} = (1, 53, 54, 1)$ lies on line ℓ_8
 653 : $P_{229695} = (62, 3, 55, 1)$ lies on line ℓ_5
 654 : $P_{229869} = (44, 6, 55, 1)$ lies on line ℓ_3
 655 : $P_{230466} = (1, 16, 55, 1)$ lies on line ℓ_8
 656 : $P_{230583} = (54, 17, 55, 1)$ lies on line ℓ_{11}
 657 : $P_{230980} = (3, 24, 55, 1)$ lies on line ℓ_{10}
 658 : $P_{231234} = (1, 28, 55, 1)$ lies on line ℓ_4
 659 : $P_{232859} = (26, 53, 55, 1)$ lies on line ℓ_6
 660 : $P_{233036} = (11, 56, 55, 1)$ lies on line ℓ_7
 661 : $P_{233218} = (1, 59, 55, 1)$ lies on line ℓ_9
 662 : $P_{233858} = (1, 5, 56, 1)$ lies on line ℓ_9
 663 : $P_{234279} = (38, 11, 56, 1)$ lies on line ℓ_{11}
 664 : $P_{234773} = (20, 19, 56, 1)$ lies on line ℓ_7
 665 : $P_{235266} = (1, 27, 56, 1)$ lies on line ℓ_4
 666 : $P_{235846} = (5, 36, 56, 1)$ lies on line ℓ_3
 667 : $P_{235970} = (1, 38, 56, 1)$ lies on line ℓ_8
 668 : $P_{236185} = (24, 41, 56, 1)$ lies on line ℓ_5
 669 : $P_{236572} = (27, 47, 56, 1)$ lies on line ℓ_{10}
 670 : $P_{237326} = (13, 59, 56, 1)$ lies on line ℓ_6
 671 : $P_{237826} = (1, 3, 57, 1)$ lies on line ℓ_8
 672 : $P_{238340} = (3, 11, 57, 1)$ lies on line ℓ_7
 673 : $P_{238722} = (1, 17, 57, 1)$ lies on line ℓ_4
 674 : $P_{239623} = (6, 31, 57, 1)$ lies on line ℓ_{10}
 675 : $P_{239864} = (55, 34, 57, 1)$ lies on line ℓ_3
 676 : $P_{239980} = (43, 36, 57, 1)$ lies on line ℓ_5
 677 : $P_{240386} = (1, 43, 57, 1)$ lies on line ℓ_9
 678 : $P_{240658} = (17, 47, 57, 1)$ lies on line ℓ_6
 679 : $P_{241521} = (48, 60, 57, 1)$ lies on line ℓ_{11}
 680 : $P_{241995} = (10, 4, 58, 1)$ lies on line ℓ_{11}
 681 : $P_{242562} = (1, 13, 58, 1)$ lies on line ℓ_8
 682 : $P_{242690} = (1, 15, 58, 1)$ lies on line ℓ_4
 683 : $P_{242998} = (53, 19, 58, 1)$ lies on line ℓ_6
 684 : $P_{244027} = (58, 35, 58, 1)$ lies on line ℓ_7

685 : $P_{244289} = (0, 40, 58, 1)$ lies on line ℓ_3
 686 : $P_{244706} = (33, 46, 58, 1)$ lies on line ℓ_{10}
 687 : $P_{245024} = (31, 51, 58, 1)$ lies on line ℓ_5
 688 : $P_{245314} = (1, 56, 58, 1)$ lies on line ℓ_9
 689 : $P_{246146} = (1, 5, 59, 1)$ lies on line ℓ_4
 690 : $P_{246314} = (41, 7, 59, 1)$ lies on line ℓ_6
 691 : $P_{247234} = (1, 22, 59, 1)$ lies on line ℓ_9
 692 : $P_{247805} = (60, 30, 59, 1)$ lies on line ℓ_{10}
 693 : $P_{248386} = (1, 40, 59, 1)$ lies on line ℓ_8
 694 : $P_{248819} = (50, 46, 59, 1)$ lies on line ℓ_3
 695 : $P_{249117} = (28, 51, 59, 1)$ lies on line ℓ_{11}
 696 : $P_{249646} = (45, 59, 59, 1)$ lies on line ℓ_7
 697 : $P_{249837} = (44, 62, 59, 1)$ lies on line ℓ_5
 698 : $P_{250589} = (28, 10, 60, 1)$ lies on line ℓ_6
 699 : $P_{251010} = (1, 17, 60, 1)$ lies on line ℓ_8
 700 : $P_{251114} = (41, 18, 60, 1)$ lies on line ℓ_7
 701 : $P_{251296} = (31, 21, 60, 1)$ lies on line ℓ_{11}
 702 : $P_{251799} = (22, 29, 60, 1)$ lies on line ℓ_5
 703 : $P_{251842} = (1, 30, 60, 1)$ lies on line ℓ_9
 704 : $P_{252815} = (14, 45, 60, 1)$ lies on line ℓ_{10}
 705 : $P_{253186} = (1, 51, 60, 1)$ lies on line ℓ_4
 706 : $P_{253776} = (15, 60, 60, 1)$ lies on line ℓ_3
 707 : $P_{254719} = (62, 10, 61, 1)$ lies on line ℓ_7
 708 : $P_{255078} = (37, 16, 61, 1)$ lies on line ℓ_5
 709 : $P_{255892} = (19, 29, 61, 1)$ lies on line ℓ_{10}
 710 : $P_{255937} = (0, 30, 61, 1)$ lies on line ℓ_6
 711 : $P_{256202} = (9, 34, 61, 1)$ lies on line ℓ_{11}
 712 : $P_{257090} = (1, 48, 61, 1)$ lies on line ℓ_9
 713 : $P_{257346} = (1, 52, 61, 1)$ lies on line ℓ_8
 714 : $P_{257666} = (1, 57, 61, 1)$ lies on line ℓ_4
 715 : $P_{257790} = (61, 58, 61, 1)$ lies on line ℓ_3
 716 : $P_{258578} = (17, 7, 62, 1)$ lies on line ℓ_5
 717 : $P_{259828} = (51, 26, 62, 1)$ lies on line ℓ_{11}
 718 : $P_{260296} = (7, 34, 62, 1)$ lies on line ℓ_7
 719 : $P_{260325} = (36, 34, 62, 1)$ lies on line ℓ_6
 720 : $P_{260354} = (1, 35, 62, 1)$ lies on line ℓ_9
 721 : $P_{260610} = (1, 39, 62, 1)$ lies on line ℓ_4
 722 : $P_{260981} = (52, 44, 62, 1)$ lies on line ℓ_{10}
 723 : $P_{261195} = (10, 48, 62, 1)$ lies on line ℓ_3
 724 : $P_{261826} = (1, 58, 62, 1)$ lies on line ℓ_8
 725 : $P_{262883} = (34, 10, 63, 1)$ lies on line ℓ_5
 726 : $P_{263042} = (1, 13, 63, 1)$ lies on line ℓ_9
 727 : $P_{264042} = (41, 28, 63, 1)$ lies on line ℓ_{10}
 728 : $P_{264194} = (1, 31, 63, 1)$ lies on line ℓ_8
 729 : $P_{265090} = (1, 45, 63, 1)$ lies on line ℓ_4
 730 : $P_{265126} = (37, 45, 63, 1)$ lies on line ℓ_{11}
 731 : $P_{265937} = (16, 58, 63, 1)$ lies on line ℓ_7

The single points on the surface are:

Points on surface but on no line

The surface has 3600 points not on any line:
Too many to print.

Line Intersection Graph

	0	1	2	3	4	5	6	7	8	9	10	11
0	0	1	1	0	1	0	0	1	0	0	0	1
1	1	0	1	1	0	1	0	0	1	0	0	0
2	1	1	0	0	0	0	1	0	0	1	1	0
3	0	1	0	0	1	1	1	1	0	1	0	0
4	1	0	0	1	0	1	1	0	1	1	1	0
5	0	1	0	1	1	0	0	0	0	1	1	1
6	0	0	1	1	1	0	0	0	1	0	1	1
7	1	0	0	1	0	0	0	0	1	1	1	1
8	0	1	0	0	1	0	1	1	0	1	1	1
9	0	0	1	1	1	1	0	1	1	0	0	1
10	0	0	1	0	1	1	1	1	1	0	0	0
11	1	0	0	0	0	1	1	1	1	1	0	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_1	ℓ_2	ℓ_4	ℓ_7	ℓ_{11}
in point	P_{3111}	P_{2382}	P_{707}	P_{1626}	P_{3609}

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_5	ℓ_8
in point	P_{3111}	P_{818}	P_{501}	P_{950}	P_{2435}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_6	ℓ_9	ℓ_{10}
in point	P_{2382}	P_{818}	P_{1375}	P_{3011}	P_{3168}

Line 3 intersects

Line	ℓ_1	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_9
in point	P_{501}	P_{156418}	P_{156418}	P_{265721}	P_{136634}	P_{156418}

Line 4 intersects

Line	ℓ_0	ℓ_3	ℓ_5	ℓ_6	ℓ_8	ℓ_9	ℓ_{10}
in point	P_{707}	P_{156418}	P_{156418}	P_{194882}	P_{194882}	P_{156418}	P_{194882}

Line 5 intersects

Line	ℓ_1	ℓ_3	ℓ_4	ℓ_9	ℓ_{10}	ℓ_{11}
in point	P_{950}	P_{156418}	P_{156418}	P_{156418}	P_{222906}	P_{64697}

Line 6 intersects

Line	ℓ_2	ℓ_3	ℓ_4	ℓ_8	ℓ_{10}	ℓ_{11}
in point	P_{1375}	P_{265721}	P_{194882}	P_{194882}	P_{194882}	P_{185210}

Line 7 intersects

Line	ℓ_0	ℓ_3	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}
in point	P_{1626}	P_{136634}	P_{48130}	P_{48130}	P_{41529}	P_{48130}

Line 8 intersects

Line	ℓ_1	ℓ_4	ℓ_6	ℓ_7	ℓ_9	ℓ_{10}	ℓ_{11}
in point	P_{2435}	P_{194882}	P_{194882}	P_{48130}	P_{48130}	P_{194882}	P_{48130}

Line 9 intersects

Line	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_7	ℓ_8	ℓ_{11}
in point	P_{3011}	P_{156418}	P_{156418}	P_{156418}	P_{48130}	P_{48130}	P_{48130}

Line 10 intersects

Line	ℓ_2	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8
in point	P_{3168}	P_{194882}	P_{222906}	P_{194882}	P_{41529}	P_{194882}

Line 11 intersects

Line	ℓ_0	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9
in point	P_{3609}	P_{64697}	P_{185210}	P_{48130}	P_{48130}	P_{48130}

The surface has 4353 points:

Too many to print.