

Rank-76323 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(32) is 1141933093

General information

Number of lines	27
Number of points	1249
Number of singular points	0
Number of Eckardt points	5
Number of double points	120
Number of single points	636
Number of points off lines	488
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^{27}
Type of lines on points	$3^5, 2^{120}, 1^{636}, 0^{488}$

Singular Points

The surface has 0 singular points:

The 27 Lines

The lines and their Pluecker coordinates are:

$$\begin{aligned}\ell_0 = a_1 &= \left[\begin{array}{cccc} 1 & 0 & \eta^{29} & \eta^{30} \\ 0 & 1 & \eta & \eta^2 \end{array} \right]_{618475} = \left[\begin{array}{cccc} 1 & 0 & 9 & 18 \\ 0 & 1 & 2 & 4 \end{array} \right]_{618475} = \mathbf{Pl}(9, 0, 18, 2, 16, 1)_{562682} \\ \ell_1 = a_2 &= \left[\begin{array}{cccc} 1 & 0 & \eta^{27} & \eta^{29} \\ 0 & 1 & \eta^2 & \eta^4 \end{array} \right]_{316559} = \left[\begin{array}{cccc} 1 & 0 & 11 & 9 \\ 0 & 1 & 4 & 16 \end{array} \right]_{316559} = \mathbf{Pl}(11, 0, 9, 4, 13, 1)_{463909}\end{aligned}$$

$$\begin{aligned}
\ell_2 = a_3 &= \begin{bmatrix} 1 & 0 & \eta^{23} & \eta^{27} \\ 0 & 1 & \eta^4 & \eta^8 \end{bmatrix}_{388351} = \begin{bmatrix} 1 & 0 & 15 & 11 \\ 0 & 1 & 16 & 13 \end{bmatrix}_{388351} = \mathbf{Pl}(15, 0, 11, 16, 27, 1)_{922343} \\
\ell_3 = a_4 &= \begin{bmatrix} 1 & \eta & 0 & 0 \\ 0 & 0 & 1 & \eta^{16} \end{bmatrix}_{3165} = \begin{bmatrix} 1 & 2 & 0 & 0 \\ 0 & 0 & 1 & 27 \end{bmatrix}_{3165} = \mathbf{Pl}(0, 0, 31, 27, 31, 1)_{1054532} \\
\ell_4 = a_5 &= \begin{bmatrix} 1 & \eta^{16} & 0 & 0 \\ 0 & 0 & 1 & \eta^8 \end{bmatrix}_{29576} = \begin{bmatrix} 1 & 27 & 0 & 0 \\ 0 & 0 & 1 & 13 \end{bmatrix}_{29576} = \mathbf{Pl}(0, 0, 15, 13, 15, 1)_{529748} \\
\ell_5 = a_6 &= \begin{bmatrix} 1 & 0 & \eta^8 & \eta^4 \\ 0 & 1 & \eta^{28} & \eta^{25} \end{bmatrix}_{555747} = \begin{bmatrix} 1 & 0 & 13 & 16 \\ 0 & 1 & 22 & 25 \end{bmatrix}_{555747} = \mathbf{Pl}(12, 7, 16, 11, 19, 1)_{676220} \\
\ell_6 = b_1 &= \begin{bmatrix} 1 & 0 & \eta^2 & \eta \\ 0 & 1 & \eta^7 & \eta^{14} \end{bmatrix}_{72824} = \begin{bmatrix} 1 & 0 & 4 & 2 \\ 0 & 1 & 20 & 29 \end{bmatrix}_{72824} = \mathbf{Pl}(5, 23, 2, 18, 14, 1)_{499420} \\
\ell_7 = b_2 &= \begin{bmatrix} 1 & 0 & \eta^{19} & \eta^{25} \\ 0 & 1 & \eta^{30} & \eta^{29} \end{bmatrix}_{852248} = \begin{bmatrix} 1 & 0 & 6 & 25 \\ 0 & 1 & 18 & 9 \end{bmatrix}_{852248} = \mathbf{Pl}(7, 12, 25, 10, 17, 1)_{619175} \\
\ell_8 = b_3 &= \begin{bmatrix} 1 & 0 & \eta & \eta^{16} \\ 0 & 1 & \eta^{19} & \eta^7 \end{bmatrix}_{916008} = \begin{bmatrix} 1 & 0 & 2 & 27 \\ 0 & 1 & 6 & 20 \end{bmatrix}_{916008} = \mathbf{Pl}(3, 28, 27, 31, 10, 1)_{391600} \\
\ell_9 = b_4 &= \begin{bmatrix} 1 & \eta^{16} & 0 & \eta \\ 0 & 0 & 1 & \eta^8 \end{bmatrix}_{97224} = \begin{bmatrix} 1 & 27 & 0 & 2 \\ 0 & 0 & 1 & 13 \end{bmatrix}_{97224} = \mathbf{Pl}(0, 27, 15, 13, 15, 1)_{529806} \\
\ell_{10} = b_5 &= \begin{bmatrix} 1 & \eta & 0 & \eta^2 \\ 0 & 0 & 1 & \eta^{16} \end{bmatrix}_{138461} = \begin{bmatrix} 1 & 2 & 0 & 4 \\ 0 & 0 & 1 & 27 \end{bmatrix}_{138461} = \mathbf{Pl}(0, 2, 31, 27, 31, 1)_{1054565} \\
\ell_{11} = b_6 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_0 = \mathbf{Pl}(1, 0, 0, 0, 0, 0)_0 \\
\ell_{12} = c_{12} &= \begin{bmatrix} 1 & \eta^8 & 0 & \eta^{16} \\ 0 & 0 & 1 & \eta^4 \end{bmatrix}_{928029} = \begin{bmatrix} 1 & 13 & 0 & 27 \\ 0 & 0 & 1 & 16 \end{bmatrix}_{928029} = \mathbf{Pl}(0, 13, 11, 16, 11, 1)_{398596} \\
\ell_{13} = c_{13} &= \begin{bmatrix} 1 & \eta^4 & 0 & \eta^8 \\ 0 & 0 & 1 & \eta^2 \end{bmatrix}_{457652} = \begin{bmatrix} 1 & 16 & 0 & 13 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{457652} = \mathbf{Pl}(0, 16, 9, 4, 9, 1)_{333001} \\
\ell_{14} = c_{14} &= \begin{bmatrix} 1 & 0 & \eta^{28} & \eta^{14} \\ 0 & 1 & \eta^{23} & \eta^{15} \end{bmatrix}_{1005157} = \begin{bmatrix} 1 & 0 & 22 & 29 \\ 0 & 1 & 15 & 31 \end{bmatrix}_{1005157} = \mathbf{Pl}(23, 5, 29, 19, 3, 1)_{164762} \\
\ell_{15} = c_{15} &= \begin{bmatrix} 1 & 0 & \eta^{16} & \eta^8 \\ 0 & 1 & \eta^{25} & \eta^{19} \end{bmatrix}_{468468} = \begin{bmatrix} 1 & 0 & 27 & 13 \\ 0 & 1 & 25 & 6 \end{bmatrix}_{468468} = \mathbf{Pl}(26, 21, 13, 15, 8, 1)_{313069} \\
\ell_{16} = c_{16} &= \begin{bmatrix} 1 & \eta^2 & 0 & 0 \\ 0 & 0 & 1 & \eta \end{bmatrix}_{5254} = \begin{bmatrix} 1 & 4 & 0 & 0 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{5254} = \mathbf{Pl}(0, 0, 18, 2, 18, 1)_{628145} \\
\ell_{17} = c_{23} &= \begin{bmatrix} 1 & \eta^2 & 0 & \eta^4 \\ 0 & 0 & 1 & \eta \end{bmatrix}_{546438} = \begin{bmatrix} 1 & 4 & 0 & 16 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{546438} = \mathbf{Pl}(0, 4, 18, 2, 18, 1)_{628180} \\
\ell_{18} = c_{24} &= \begin{bmatrix} 1 & 0 & \eta^7 & \eta^{19} \\ 0 & 1 & \eta^{29} & \eta^{27} \end{bmatrix}_{224445} = \begin{bmatrix} 1 & 0 & 20 & 6 \\ 0 & 1 & 9 & 11 \end{bmatrix}_{224445} = \mathbf{Pl}(21, 26, 6, 14, 12, 1)_{438118} \\
\ell_{19} = c_{25} &= \begin{bmatrix} 1 & 0 & \eta^{25} & \eta^{28} \\ 0 & 1 & \eta^{15} & \eta^{30} \end{bmatrix}_{771160} = \begin{bmatrix} 1 & 0 & 25 & 22 \\ 0 & 1 & 31 & 18 \end{bmatrix}_{771160} = \mathbf{Pl}(24, 17, 22, 8, 5, 1)_{223136} \\
\ell_{20} = c_{26} &= \begin{bmatrix} 1 & \eta^4 & 0 & 0 \\ 0 & 0 & 1 & \eta^2 \end{bmatrix}_{17940} = \begin{bmatrix} 1 & 16 & 0 & 0 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{17940} = \mathbf{Pl}(0, 0, 9, 4, 9, 1)_{332954} \\
\ell_{21} = c_{34} &= \begin{bmatrix} 1 & 0 & \eta^4 & \eta^2 \\ 0 & 1 & \eta^{14} & \eta^{28} \end{bmatrix}_{152941} = \begin{bmatrix} 1 & 0 & 16 & 4 \\ 0 & 1 & 29 & 22 \end{bmatrix}_{152941} = \mathbf{Pl}(17, 24, 4, 9, 30, 1)_{1025564} \\
\ell_{22} = c_{35} &= \begin{bmatrix} 1 & 0 & \eta^{14} & \eta^7 \\ 0 & 1 & \eta^{27} & \eta^{23} \end{bmatrix}_{707624} = \begin{bmatrix} 1 & 0 & 29 & 20 \\ 0 & 1 & 11 & 15 \end{bmatrix}_{707624} = \mathbf{Pl}(28, 3, 20, 30, 26, 1)_{909232}
\end{aligned}$$

$$\begin{aligned}
\ell_{23} = c_{36} &= \begin{bmatrix} 1 & \eta^8 & 0 & 0 \\ 0 & 0 & 1 & \eta^4 \end{bmatrix}_{14781} = \begin{bmatrix} 1 & 13 & 0 & 0 \\ 0 & 0 & 1 & 16 \end{bmatrix}_{14781} = \mathbf{PI}(0, 0, 11, 16, 11, 1)_{398552} \\
\ell_{24} = c_{45} &= \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1083424} = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1083424} = \mathbf{PI}(0, 1, 0, 0, 0, 0)_1 \\
\ell_{25} = c_{46} &= \begin{bmatrix} 1 & 0 & \eta^{30} & \eta^{15} \\ 0 & 1 & \eta^{16} & \eta \end{bmatrix}_{1067661} = \begin{bmatrix} 1 & 0 & 18 & 31 \\ 0 & 1 & 27 & 2 \end{bmatrix}_{1067661} = \mathbf{PI}(18, 0, 31, 27, 4, 1)_{170678} \\
\ell_{26} = c_{56} &= \begin{bmatrix} 1 & 0 & \eta^{15} & \eta^{23} \\ 0 & 1 & \eta^8 & \eta^{16} \end{bmatrix}_{541004} = \begin{bmatrix} 1 & 0 & 31 & 15 \\ 0 & 1 & 13 & 27 \end{bmatrix}_{541004} = \mathbf{PI}(31, 0, 15, 13, 2, 1)_{104211}
\end{aligned}$$

Rank of lines: (618475, 316559, 388351, 3165, 29576, 555747, 72824, 852248, 916008, 97224, 138461, 0, 928029, 457652, 1005157, 468468, 5254, 546438, 224445, 771160, 17940, 152941, 707624, 14781, 1083424, 1067661, 541004)

Rank of points on Klein quadric: (562682, 463909, 922343, 1054532, 529748, 676220, 499420, 619175, 391600, 529806, 1054565, 0, 398596, 333001, 164762, 313069, 628145, 628180, 438118, 223136, 332954, 1025564, 909232, 398552, 1, 170678, 104211)

Eckardt Points

The surface has 5 Eckardt points:

$$\begin{aligned}
0 : E_{13,26,45} &= c_{13} \cap c_{26} \cap c_{45} = P_{10273} = \mathbf{P}(0, 0, \eta^{29}, 1) = \mathbf{P}(0, 0, 9, 1), \\
1 : E_{12,36,45} &= c_{12} \cap c_{36} \cap c_{45} = P_{12321} = \mathbf{P}(0, 0, \eta^{27}, 1) = \mathbf{P}(0, 0, 11, 1), \\
2 : E_{54} &= a_5 \cap b_4 \cap c_{45} = P_{16417} = \mathbf{P}(0, 0, \eta^{23}, 1) = \mathbf{P}(0, 0, 15, 1), \\
3 : E_{16,23,45} &= c_{16} \cap c_{23} \cap c_{45} = P_{19489} = \mathbf{P}(0, 0, \eta^{30}, 1) = \mathbf{P}(0, 0, 18, 1), \\
4 : E_{45} &= a_4 \cap b_5 \cap c_{45} = P_{32801} = \mathbf{P}(0, 0, \eta^{15}, 1) = \mathbf{P}(0, 0, 31, 1).
\end{aligned}$$

Double Points

The surface has 120 Double points:

The double points on the surface are:

$$\begin{aligned}
P_{20410} &= (25, 28, 18, 1) = \ell_0 \cap \ell_7 = a_1 \cap b_2 \\
P_{19531} &= (10, 1, 18, 1) = \ell_0 \cap \ell_8 = a_1 \cap b_3 \\
P_{19833} &= (24, 10, 18, 1) = \ell_0 \cap \ell_9 = a_1 \cap b_4 \\
P_{19990} &= (21, 15, 18, 1) = \ell_0 \cap \ell_{10} = a_1 \cap b_5 \\
P_{12} &= (8, 1, 0, 0) = \ell_0 \cap \ell_{11} = a_1 \cap b_6 \\
P_{20285} &= (28, 24, 18, 1) = \ell_0 \cap \ell_{12} = a_1 \cap c_{12} \\
P_{20434} &= (17, 29, 18, 1) = \ell_0 \cap \ell_{13} = a_1 \cap c_{13} \\
P_{20023} &= (22, 16, 18, 1) = \ell_0 \cap \ell_{14} = a_1 \cap c_{14} \\
P_{20357} &= (4, 27, 18, 1) = \ell_0 \cap \ell_{15} = a_1 \cap c_{15} \\
P_{19571} &= (18, 2, 18, 1) = \ell_0 \cap \ell_{16} = a_1 \cap c_{16} \\
P_{10319} &= (14, 1, 9, 1) = \ell_1 \cap \ell_6 = a_2 \cap b_1 \\
P_{10353} &= (16, 2, 9, 1) = \ell_1 \cap \ell_8 = a_2 \cap b_3 \\
P_{10520} &= (23, 7, 9, 1) = \ell_1 \cap \ell_9 = a_2 \cap b_4 \\
P_{10728} &= (7, 14, 9, 1) = \ell_1 \cap \ell_{10} = a_2 \cap b_5 \\
P_{14} &= (10, 1, 0, 0) = \ell_1 \cap \ell_{11} = a_2 \cap b_6 \\
P_{10989} &= (12, 22, 9, 1) = \ell_1 \cap \ell_{12} = a_2 \cap c_{12} \\
P_{11293} &= (28, 31, 9, 1) = \ell_1 \cap \ell_{17} = a_2 \cap c_{23} \\
P_{11015} &= (6, 23, 9, 1) = \ell_1 \cap \ell_{18} = a_2 \cap c_{24} \\
P_{10714} &= (25, 13, 9, 1) = \ell_1 \cap \ell_{19} = a_2 \cap c_{25} \\
P_{10410} &= (9, 4, 9, 1) = \ell_1 \cap \ell_{20} = a_2 \cap c_{26} \\
P_{12462} &= (13, 4, 11, 1) = \ell_2 \cap \ell_6 = a_3 \cap b_1 \\
P_{13191} &= (6, 27, 11, 1) = \ell_2 \cap \ell_7 = a_3 \cap b_2 \\
P_{13147} &= (26, 25, 11, 1) = \ell_2 \cap \ell_9 = a_3 \cap b_4 \\
P_{13017} &= (24, 21, 11, 1) = \ell_2 \cap \ell_{10} = a_3 \cap b_5 \\
P_{18} &= (14, 1, 0, 0) = \ell_2 \cap \ell_{11} = a_3 \cap b_6 \\
P_{12920} &= (23, 18, 11, 1) = \ell_2 \cap \ell_{13} = a_3 \cap c_{13} \\
P_{13302} &= (21, 30, 11, 1) = \ell_2 \cap \ell_{17} = a_3 \cap c_{23} \\
P_{12383} &= (30, 1, 11, 1) = \ell_2 \cap \ell_{21} = a_3 \cap c_{34} \\
P_{13109} &= (20, 24, 11, 1) = \ell_2 \cap \ell_{22} = a_3 \cap c_{35} \\
P_{12844} &= (11, 16, 11, 1) = \ell_2 \cap \ell_{23} = a_3 \cap c_{36} \\
P_{32916} &= (19, 3, 31, 1) = \ell_3 \cap \ell_6 = a_4 \cap b_1 \\
P_{32977} &= (16, 5, 31, 1) = \ell_3 \cap \ell_7 = a_4 \cap b_2 \\
P_{33321} &= (8, 16, 31, 1) = \ell_3 \cap \ell_8 = a_4 \cap b_3 \\
P_{22} &= (18, 1, 0, 0) = \ell_3 \cap \ell_{11} = a_4 \cap b_6 \\
P_{33711} &= (14, 28, 31, 1) = \ell_3 \cap \ell_{14} = a_4 \cap c_{14} \\
P_{33516} &= (11, 22, 31, 1) = \ell_3 \cap \ell_{18} = a_4 \cap c_{24} \\
P_{33776} &= (15, 30, 31, 1) = \ell_3 \cap \ell_{21} = a_4 \cap c_{34} \\
P_{33696} &= (31, 27, 31, 1) = \ell_3 \cap \ell_{25} = a_4 \cap c_{46} \\
P_{16876} &= (11, 14, 15, 1) = \ell_4 \cap \ell_6 = a_5 \cap b_1 \\
P_{17354} &= (9, 29, 15, 1) = \ell_4 \cap \ell_7 = a_5 \cap b_2
\end{aligned}$$

$$\begin{aligned}
P_{17279} &= (30, 26, 15, 1) = \ell_4 \cap \ell_8 = a_5 \cap b_3 \\
P_{35} &= (31, 1, 0, 0) = \ell_4 \cap \ell_{11} = a_5 \cap b_6 \\
P_{16564} &= (19, 4, 15, 1) = \ell_4 \cap \ell_{15} = a_5 \cap c_{15} \\
P_{16517} &= (4, 3, 15, 1) = \ell_4 \cap \ell_{19} = a_5 \cap c_{25} \\
P_{17099} &= (10, 21, 15, 1) = \ell_4 \cap \ell_{22} = a_5 \cap c_{35} \\
P_{16848} &= (15, 13, 15, 1) = \ell_4 \cap \ell_{26} = a_5 \cap c_{56} \\
P_{5656} &= (23, 15, 4, 1) = \ell_5 \cap \ell_6 = a_6 \cap b_1 \\
P_{32489} &= (8, 22, 30, 1) = \ell_5 \cap \ell_7 = a_6 \cap b_2 \\
P_{14952} &= (7, 18, 13, 1) = \ell_5 \cap \ell_8 = a_6 \cap b_3 \\
P_{19330} &= (1, 27, 17, 1) = \ell_5 \cap \ell_9 = a_6 \cap b_4 \\
P_{23341} &= (12, 24, 21, 1) = \ell_5 \cap \ell_{10} = a_6 \cap b_5 \\
P_{20128} &= (31, 19, 18, 1) = \ell_5 \cap \ell_{16} = a_6 \cap c_{16} \\
P_{10827} &= (10, 17, 9, 1) = \ell_5 \cap \ell_{20} = a_6 \cap c_{26} \\
P_{12415} &= (30, 2, 11, 1) = \ell_5 \cap \ell_{23} = a_6 \cap c_{36} \\
P_{33219} &= (2, 13, 31, 1) = \ell_5 \cap \ell_{25} = a_6 \cap c_{46} \\
P_{16468} &= (19, 1, 15, 1) = \ell_5 \cap \ell_{26} = a_6 \cap c_{56} \\
P_{26534} &= (5, 28, 24, 1) = \ell_6 \cap \ell_{12} = b_1 \cap c_{12} \\
P_{4642} &= (1, 16, 3, 1) = \ell_6 \cap \ell_{13} = b_1 \cap c_{13} \\
P_{11967} &= (30, 20, 10, 1) = \ell_6 \cap \ell_{14} = b_1 \cap c_{14} \\
P_{29014} &= (21, 9, 27, 1) = \ell_6 \cap \ell_{15} = b_1 \cap c_{15} \\
P_{19915} &= (10, 13, 18, 1) = \ell_6 \cap \ell_{16} = b_1 \cap c_{16} \\
P_{30430} &= (29, 21, 28, 1) = \ell_7 \cap \ell_{12} = b_2 \cap c_{12} \\
P_{15858} &= (17, 14, 14, 1) = \ell_7 \cap \ell_{17} = b_2 \cap c_{23} \\
P_{30950} &= (5, 6, 29, 1) = \ell_7 \cap \ell_{18} = b_2 \cap c_{24} \\
P_{22340} &= (3, 25, 20, 1) = \ell_7 \cap \ell_{19} = b_2 \cap c_{25} \\
P_{11060} &= (19, 24, 9, 1) = \ell_7 \cap \ell_{20} = b_2 \cap c_{26} \\
P_{25284} &= (3, 21, 23, 1) = \ell_8 \cap \ell_{13} = b_3 \cap c_{13} \\
P_{27810} &= (1, 4, 26, 1) = \ell_8 \cap \ell_{17} = b_3 \cap c_{23} \\
P_{3485} &= (28, 11, 2, 1) = \ell_8 \cap \ell_{21} = b_3 \cap c_{34} \\
P_{9455} &= (14, 6, 8, 1) = \ell_8 \cap \ell_{22} = b_3 \cap c_{35} \\
P_{12650} &= (9, 10, 11, 1) = \ell_8 \cap \ell_{23} = b_3 \cap c_{36} \\
P_{9508} &= (3, 8, 8, 1) = \ell_9 \cap \ell_{14} = b_4 \cap c_{14} \\
P_{25527} &= (22, 28, 23, 1) = \ell_9 \cap \ell_{18} = b_4 \cap c_{24} \\
P_{8978} &= (17, 23, 7, 1) = \ell_9 \cap \ell_{21} = b_4 \cap c_{34} \\
P_{33160} &= (7, 11, 31, 1) = \ell_9 \cap \ell_{25} = b_4 \cap c_{46} \\
P_{13410} &= (1, 2, 12, 1) = \ell_{10} \cap \ell_{15} = b_5 \cap c_{15} \\
P_{11622} &= (5, 10, 10, 1) = \ell_{10} \cap \ell_{19} = b_5 \cap c_{25} \\
P_{26394} &= (25, 23, 24, 1) = \ell_{10} \cap \ell_{22} = b_5 \cap c_{35} \\
P_{16612} &= (3, 6, 15, 1) = \ell_{10} \cap \ell_{26} = b_5 \cap c_{56} \\
P_{13} &= (9, 1, 0, 0) = \ell_{11} \cap \ell_{16} = b_6 \cap c_{16} \\
P_{15} &= (11, 1, 0, 0) = \ell_{11} \cap \ell_{20} = b_6 \cap c_{26}
\end{aligned}$$

$$\begin{aligned}
P_{19} &= (15, 1, 0, 0) = \ell_{11} \cap \ell_{23} = b_6 \cap c_{36} \\
P_{23} &= (19, 1, 0, 0) = \ell_{11} \cap \ell_{25} = b_6 \cap c_{46} \\
P_{34} &= (30, 1, 0, 0) = \ell_{11} \cap \ell_{26} = b_6 \cap c_{56} \\
P_{6594} &= (1, 13, 5, 1) = \ell_{12} \cap \ell_{21} = c_{12} \cap c_{34} \\
P_{21147} &= (26, 19, 19, 1) = \ell_{12} \cap \ell_{22} = c_{12} \cap c_{35} \\
P_{33080} &= (23, 8, 31, 1) = \ell_{12} \cap \ell_{25} = c_{12} \cap c_{46} \\
P_{16729} &= (24, 9, 15, 1) = \ell_{12} \cap \ell_{26} = c_{12} \cap c_{56} \\
P_{32749} &= (12, 30, 30, 1) = \ell_{13} \cap \ell_{18} = c_{13} \cap c_{24} \\
P_{22805} &= (20, 7, 21, 1) = \ell_{13} \cap \ell_{19} = c_{13} \cap c_{25} \\
P_{33558} &= (21, 23, 31, 1) = \ell_{13} \cap \ell_{25} = c_{13} \cap c_{46} \\
P_{17053} &= (28, 19, 15, 1) = \ell_{13} \cap \ell_{26} = c_{13} \cap c_{56} \\
P_{8999} &= (6, 24, 7, 1) = \ell_{14} \cap \ell_{17} = c_{14} \cap c_{23} \\
P_{7931} &= (26, 22, 6, 1) = \ell_{14} \cap \ell_{19} = c_{14} \cap c_{25} \\
P_{10496} &= (31, 6, 9, 1) = \ell_{14} \cap \ell_{20} = c_{14} \cap c_{26} \\
P_{27597} &= (12, 29, 25, 1) = \ell_{14} \cap \ell_{22} = c_{14} \cap c_{35} \\
P_{13155} &= (2, 26, 11, 1) = \ell_{14} \cap \ell_{23} = c_{14} \cap c_{36} \\
P_{16670} &= (29, 7, 15, 1) = \ell_{14} \cap \ell_{26} = c_{14} \cap c_{56} \\
P_{29979} &= (26, 7, 28, 1) = \ell_{15} \cap \ell_{17} = c_{15} \cap c_{23} \\
P_{21323} &= (10, 25, 19, 1) = \ell_{15} \cap \ell_{18} = c_{15} \cap c_{24} \\
P_{10547} &= (18, 8, 9, 1) = \ell_{15} \cap \ell_{20} = c_{15} \cap c_{26} \\
P_{18457} &= (24, 31, 16, 1) = \ell_{15} \cap \ell_{21} = c_{15} \cap c_{34} \\
P_{12719} &= (14, 12, 11, 1) = \ell_{15} \cap \ell_{23} = c_{15} \cap c_{36} \\
P_{32841} &= (8, 1, 31, 1) = \ell_{15} \cap \ell_{25} = c_{15} \cap c_{46} \\
P_{20046} &= (13, 17, 18, 1) = \ell_{16} \cap \ell_{18} = c_{16} \cap c_{24} \\
P_{20255} &= (30, 23, 18, 1) = \ell_{16} \cap \ell_{19} = c_{16} \cap c_{25} \\
P_{19657} &= (8, 5, 18, 1) = \ell_{16} \cap \ell_{21} = c_{16} \cap c_{34} \\
P_{20304} &= (15, 25, 18, 1) = \ell_{16} \cap \ell_{22} = c_{16} \cap c_{35} \\
P_{33446} &= (5, 20, 31, 1) = \ell_{17} \cap \ell_{25} = c_{23} \cap c_{46} \\
P_{17320} &= (7, 28, 15, 1) = \ell_{17} \cap \ell_{26} = c_{23} \cap c_{56} \\
P_{24242} &= (17, 20, 22, 1) = \ell_{18} \cap \ell_{22} = c_{24} \cap c_{35} \\
P_{12553} &= (8, 7, 11, 1) = \ell_{18} \cap \ell_{23} = c_{24} \cap c_{36} \\
P_{16501} &= (20, 2, 15, 1) = \ell_{18} \cap \ell_{26} = c_{24} \cap c_{56} \\
P_{16340} &= (19, 29, 14, 1) = \ell_{19} \cap \ell_{21} = c_{25} \cap c_{34} \\
P_{12979} &= (18, 20, 11, 1) = \ell_{19} \cap \ell_{23} = c_{25} \cap c_{36} \\
P_{33495} &= (22, 21, 31, 1) = \ell_{19} \cap \ell_{25} = c_{25} \cap c_{46} \\
P_{11151} &= (14, 27, 9, 1) = \ell_{20} \cap \ell_{21} = c_{26} \cap c_{34} \\
P_{10684} &= (27, 12, 9, 1) = \ell_{20} \cap \ell_{22} = c_{26} \cap c_{35} \\
P_{16956} &= (27, 16, 15, 1) = \ell_{21} \cap \ell_{26} = c_{34} \cap c_{56} \\
P_{32958} &= (29, 4, 31, 1) = \ell_{22} \cap \ell_{25} = c_{35} \cap c_{46}
\end{aligned}$$

Single Points

The surface has 636 single points:

The single points on the surface are:

- 0 : $P_0 = (1, 0, 0, 0)$ lies on line b_6
- 1 : $P_1 = (0, 1, 0, 0)$ lies on line b_6
- 2 : $P_2 = (0, 0, 1, 0)$ lies on line c_{45}
- 3 : $P_3 = (0, 0, 0, 1)$ lies on line c_{45}
- 4 : $P_5 = (1, 1, 0, 0)$ lies on line b_6
- 5 : $P_6 = (2, 1, 0, 0)$ lies on line b_6

- 6 : $P_7 = (3, 1, 0, 0)$ lies on line b_6
- 7 : $P_8 = (4, 1, 0, 0)$ lies on line b_6
- 8 : $P_9 = (5, 1, 0, 0)$ lies on line b_6
- 9 : $P_{10} = (6, 1, 0, 0)$ lies on line b_6
- 10 : $P_{11} = (7, 1, 0, 0)$ lies on line b_6
- 11 : $P_{16} = (12, 1, 0, 0)$ lies on line b_6

12 : $P_{17} = (13, 1, 0, 0)$ lies on line b_6
 13 : $P_{20} = (16, 1, 0, 0)$ lies on line b_6
 14 : $P_{21} = (17, 1, 0, 0)$ lies on line b_6
 15 : $P_{24} = (20, 1, 0, 0)$ lies on line b_6
 16 : $P_{25} = (21, 1, 0, 0)$ lies on line b_6
 17 : $P_{26} = (22, 1, 0, 0)$ lies on line b_6
 18 : $P_{27} = (23, 1, 0, 0)$ lies on line b_6
 19 : $P_{28} = (24, 1, 0, 0)$ lies on line b_6
 20 : $P_{29} = (25, 1, 0, 0)$ lies on line b_6
 21 : $P_{30} = (26, 1, 0, 0)$ lies on line b_6
 22 : $P_{31} = (27, 1, 0, 0)$ lies on line b_6
 23 : $P_{32} = (28, 1, 0, 0)$ lies on line b_6
 24 : $P_{33} = (29, 1, 0, 0)$ lies on line b_6
 25 : $P_{113} = (14, 2, 1, 0)$ lies on line c_{15}
 26 : $P_{193} = (30, 4, 1, 0)$ lies on line b_3
 27 : $P_{298} = (7, 8, 1, 0)$ lies on line c_{24}
 28 : $P_{348} = (25, 9, 1, 0)$ lies on line c_{13}
 29 : $P_{376} = (21, 10, 1, 0)$ lies on line c_{35}
 30 : $P_{393} = (6, 11, 1, 0)$ lies on line c_{12}
 31 : $P_{459} = (8, 13, 1, 0)$ lies on line c_{34}
 32 : $P_{511} = (28, 14, 1, 0)$ lies on line c_{14}
 33 : $P_{535} = (20, 15, 1, 0)$ lies on line b_4
 34 : $P_{566} = (19, 16, 1, 0)$ lies on line b_1
 35 : $P_{633} = (22, 18, 1, 0)$ lies on line c_{23}
 36 : $P_{667} = (24, 19, 1, 0)$ lies on line b_2
 37 : $P_{909} = (10, 27, 1, 0)$ lies on line a_6
 38 : $P_{1018} = (23, 30, 1, 0)$ lies on line c_{25}
 39 : $P_{1056} = (29, 31, 1, 0)$ lies on line b_5
 40 : $P_{1159} = (5, 3, 0, 1)$ lies on line b_3
 41 : $P_{1235} = (17, 5, 0, 1)$ lies on line b_1
 42 : $P_{1303} = (21, 7, 0, 1)$ lies on line b_2
 43 : $P_{1357} = (11, 9, 0, 1)$ lies on line c_{23}
 44 : $P_{1425} = (15, 11, 0, 1)$ lies on line c_{13}
 45 : $P_{1468} = (26, 12, 0, 1)$ lies on line a_6
 46 : $P_{1569} = (31, 15, 0, 1)$ lies on line c_{12}
 47 : $P_{1614} = (12, 17, 0, 1)$ lies on line c_{34}
 48 : $P_{1643} = (9, 18, 0, 1)$ lies on line b_5
 49 : $P_{1758} = (28, 21, 0, 1)$ lies on line c_{24}
 50 : $P_{1818} = (24, 23, 0, 1)$ lies on line c_{14}
 51 : $P_{1833} = (7, 24, 0, 1)$ lies on line c_{25}
 52 : $P_{1893} = (3, 26, 0, 1)$ lies on line c_{15}
 53 : $P_{1977} = (23, 28, 0, 1)$ lies on line c_{35}
 54 : $P_{2068} = (18, 31, 0, 1)$ lies on line b_4
 55 : $P_{2082} = (0, 0, 1, 1)$ lies on line c_{45}
 56 : $P_{2167} = (22, 2, 1, 1)$ lies on line c_{13}
 57 : $P_{2234} = (25, 4, 1, 1)$ lies on line c_{12}
 58 : $P_{2289} = (16, 6, 1, 1)$ lies on line c_{25}
 59 : $P_{2332} = (27, 7, 1, 1)$ lies on line b_3
 60 : $P_{2517} = (20, 13, 1, 1)$ lies on line b_5
 61 : $P_{2599} = (6, 16, 1, 1)$ lies on line b_4
 62 : $P_{2734} = (13, 20, 1, 1)$ lies on line b_2
 63 : $P_{2755} = (2, 21, 1, 1)$ lies on line b_1
 64 : $P_{2787} = (2, 22, 1, 1)$ lies on line c_{35}
 65 : $P_{2833} = (16, 23, 1, 1)$ lies on line a_6

66 : $P_{2862} = (13, 24, 1, 1)$ lies on line c_{15}
 67 : $P_{2885} = (4, 25, 1, 1)$ lies on line c_{14}
 68 : $P_{2974} = (29, 27, 1, 1)$ lies on line c_{23}
 69 : $P_{2981} = (4, 28, 1, 1)$ lies on line c_{34}
 70 : $P_{3036} = (27, 29, 1, 1)$ lies on line c_{24}
 71 : $P_{3105} = (0, 0, 2, 1)$ lies on line c_{45}
 72 : $P_{3123} = (18, 0, 2, 1)$ lies on line b_1
 73 : $P_{3149} = (12, 1, 2, 1)$ lies on line c_{25}
 74 : $P_{3168} = (31, 1, 2, 1)$ lies on line b_4
 75 : $P_{3233} = (0, 4, 2, 1)$ lies on line b_2
 76 : $P_{3283} = (18, 5, 2, 1)$ lies on line c_{24}
 77 : $P_{3363} = (2, 8, 2, 1)$ lies on line c_{23}
 78 : $P_{3385} = (24, 8, 2, 1)$ lies on line c_{35}
 79 : $P_{3415} = (22, 9, 2, 1)$ lies on line b_5
 80 : $P_{3462} = (5, 11, 2, 1)$ lies on line c_{14}
 81 : $P_{3924} = (19, 25, 2, 1)$ lies on line c_{12}
 82 : $P_{3929} = (24, 25, 2, 1)$ lies on line c_{13}
 83 : $P_{4096} = (31, 30, 2, 1)$ lies on line c_{15}
 84 : $P_{4111} = (14, 31, 2, 1)$ lies on line a_6
 85 : $P_{4129} = (0, 0, 3, 1)$ lies on line c_{45}
 86 : $P_{4206} = (13, 2, 3, 1)$ lies on line c_{35}
 87 : $P_{4261} = (4, 4, 3, 1)$ lies on line a_6
 88 : $P_{4314} = (25, 5, 3, 1)$ lies on line c_{14}
 89 : $P_{4341} = (20, 6, 3, 1)$ lies on line c_{34}
 90 : $P_{4566} = (21, 13, 3, 1)$ lies on line c_{24}
 91 : $P_{4588} = (11, 14, 3, 1)$ lies on line b_4
 92 : $P_{4611} = (2, 15, 3, 1)$ lies on line b_3
 93 : $P_{4726} = (21, 18, 3, 1)$ lies on line c_{12}
 94 : $P_{4844} = (11, 22, 3, 1)$ lies on line b_5
 95 : $P_{4889} = (24, 23, 3, 1)$ lies on line b_2
 96 : $P_{4981} = (20, 26, 3, 1)$ lies on line c_{23}
 97 : $P_{5042} = (17, 28, 3, 1)$ lies on line c_{15}
 98 : $P_{5148} = (27, 31, 3, 1)$ lies on line c_{25}
 99 : $P_{5153} = (0, 0, 4, 1)$ lies on line c_{45}
 100 : $P_{5162} = (9, 0, 4, 1)$ lies on line c_{34}
 101 : $P_{5203} = (18, 1, 4, 1)$ lies on line b_5
 102 : $P_{5211} = (26, 1, 4, 1)$ lies on line b_2
 103 : $P_{5352} = (7, 6, 4, 1)$ lies on line c_{12}
 104 : $P_{5353} = (8, 6, 4, 1)$ lies on line b_4
 105 : $P_{5477} = (4, 10, 4, 1)$ lies on line c_{13}
 106 : $P_{5480} = (7, 10, 4, 1)$ lies on line c_{14}
 107 : $P_{5530} = (25, 11, 4, 1)$ lies on line c_{23}
 108 : $P_{5650} = (17, 15, 4, 1)$ lies on line c_{25}
 109 : $P_{5665} = (0, 16, 4, 1)$ lies on line c_{24}
 110 : $P_{5706} = (9, 17, 4, 1)$ lies on line c_{35}
 111 : $P_{5759} = (30, 18, 4, 1)$ lies on line c_{15}
 112 : $P_{5779} = (18, 19, 4, 1)$ lies on line b_3
 113 : $P_{6177} = (0, 0, 5, 1)$ lies on line c_{45}
 114 : $P_{6302} = (29, 3, 5, 1)$ lies on line c_{13}
 115 : $P_{6332} = (27, 4, 5, 1)$ lies on line c_{14}
 116 : $P_{6493} = (28, 9, 5, 1)$ lies on line b_4
 117 : $P_{6705} = (16, 16, 5, 1)$ lies on line c_{15}
 118 : $P_{6727} = (6, 17, 5, 1)$ lies on line c_{25}
 119 : $P_{6755} = (2, 18, 5, 1)$ lies on line b_2

120 : $P_{6846} = (29, 20, 5, 1)$ lies on line a_6
 121 : $P_{6925} = (12, 23, 5, 1)$ lies on line b_3
 122 : $P_{6952} = (7, 24, 5, 1)$ lies on line c_{24}
 123 : $P_{6992} = (15, 25, 5, 1)$ lies on line c_{23}
 124 : $P_{7069} = (28, 27, 5, 1)$ lies on line c_{35}
 125 : $P_{7152} = (15, 30, 5, 1)$ lies on line b_5
 126 : $P_{7173} = (4, 31, 5, 1)$ lies on line b_1
 127 : $P_{7201} = (0, 0, 6, 1)$ lies on line c_{45}
 128 : $P_{7215} = (14, 0, 6, 1)$ lies on line c_{24}
 129 : $P_{7280} = (15, 2, 6, 1)$ lies on line b_2
 130 : $P_{7367} = (6, 5, 6, 1)$ lies on line c_{35}
 131 : $P_{7537} = (16, 10, 6, 1)$ lies on line c_{23}
 132 : $P_{7541} = (20, 10, 6, 1)$ lies on line b_1
 133 : $P_{7724} = (11, 16, 6, 1)$ lies on line c_{12}
 134 : $P_{7907} = (2, 22, 6, 1)$ lies on line c_{15}
 135 : $P_{7974} = (5, 24, 6, 1)$ lies on line b_4
 136 : $P_{7988} = (19, 24, 6, 1)$ lies on line c_{13}
 137 : $P_{8046} = (13, 26, 6, 1)$ lies on line b_5
 138 : $P_{8058} = (25, 26, 6, 1)$ lies on line c_{34}
 139 : $P_{8076} = (11, 27, 6, 1)$ lies on line b_3
 140 : $P_{8100} = (3, 28, 6, 1)$ lies on line a_6
 141 : $P_{8225} = (0, 0, 7, 1)$ lies on line c_{45}
 142 : $P_{8401} = (16, 5, 7, 1)$ lies on line b_5
 143 : $P_{8458} = (9, 7, 7, 1)$ lies on line a_6
 144 : $P_{8490} = (9, 8, 7, 1)$ lies on line c_{24}
 145 : $P_{8494} = (13, 8, 7, 1)$ lies on line c_{25}
 146 : $P_{8724} = (19, 15, 7, 1)$ lies on line c_{35}
 147 : $P_{8779} = (10, 17, 7, 1)$ lies on line c_{13}
 148 : $P_{8792} = (23, 17, 7, 1)$ lies on line b_2
 149 : $P_{8877} = (12, 20, 7, 1)$ lies on line c_{15}
 150 : $P_{9064} = (7, 26, 7, 1)$ lies on line b_1
 151 : $P_{9102} = (13, 27, 7, 1)$ lies on line c_{12}
 152 : $P_{9238} = (21, 31, 7, 1)$ lies on line b_3
 153 : $P_{9249} = (0, 0, 8, 1)$ lies on line c_{45}
 154 : $P_{9562} = (25, 9, 8, 1)$ lies on line c_{13}
 155 : $P_{9569} = (0, 10, 8, 1)$ lies on line a_6
 156 : $P_{9597} = (28, 10, 8, 1)$ lies on line c_{15}
 157 : $P_{9612} = (11, 11, 8, 1)$ lies on line b_2
 158 : $P_{9675} = (10, 13, 8, 1)$ lies on line c_{23}
 159 : $P_{9819} = (26, 17, 8, 1)$ lies on line b_5
 160 : $P_{9822} = (29, 17, 8, 1)$ lies on line b_1
 161 : $P_{9871} = (14, 19, 8, 1)$ lies on line c_{25}
 162 : $P_{9959} = (6, 22, 8, 1)$ lies on line c_{34}
 163 : $P_{10187} = (10, 29, 8, 1)$ lies on line c_{12}
 164 : $P_{10242} = (1, 31, 8, 1)$ lies on line c_{24}
 165 : $P_{10277} = (4, 0, 9, 1)$ lies on line a_2
 166 : $P_{10316} = (11, 1, 9, 1)$ lies on line c_{26}
 167 : $P_{10359} = (22, 2, 9, 1)$ lies on line c_{26}
 168 : $P_{10395} = (26, 3, 9, 1)$ lies on line a_2
 169 : $P_{10398} = (29, 3, 9, 1)$ lies on line c_{26}
 170 : $P_{10435} = (2, 5, 9, 1)$ lies on line c_{26}
 171 : $P_{10436} = (3, 5, 9, 1)$ lies on line a_2
 172 : $P_{10494} = (29, 6, 9, 1)$ lies on line a_2
 173 : $P_{10517} = (20, 7, 9, 1)$ lies on line c_{26}

174 : $P_{10559} = (30, 8, 9, 1)$ lies on line a_2
 175 : $P_{10581} = (20, 9, 9, 1)$ lies on line a_2
 176 : $P_{10586} = (25, 9, 9, 1)$ lies on line c_{26}
 177 : $P_{10597} = (4, 10, 9, 1)$ lies on line c_{26}
 178 : $P_{10603} = (10, 10, 9, 1)$ lies on line a_2
 179 : $P_{10625} = (0, 11, 9, 1)$ lies on line a_2
 180 : $P_{10640} = (15, 11, 9, 1)$ lies on line c_{26}
 181 : $P_{10676} = (19, 12, 9, 1)$ lies on line a_2
 182 : $P_{10705} = (16, 13, 9, 1)$ lies on line c_{26}
 183 : $P_{10734} = (13, 14, 9, 1)$ lies on line c_{26}
 184 : $P_{10759} = (6, 15, 9, 1)$ lies on line c_{26}
 185 : $P_{10766} = (13, 15, 9, 1)$ lies on line a_2
 186 : $P_{10786} = (1, 16, 9, 1)$ lies on line c_{26}
 187 : $P_{10806} = (21, 16, 9, 1)$ lies on line a_2
 188 : $P_{10848} = (31, 17, 9, 1)$ lies on line a_2
 189 : $P_{10850} = (1, 18, 9, 1)$ lies on line a_2
 190 : $P_{10872} = (23, 18, 9, 1)$ lies on line c_{26}
 191 : $P_{10892} = (11, 19, 9, 1)$ lies on line a_2
 192 : $P_{10909} = (28, 19, 9, 1)$ lies on line c_{26}
 193 : $P_{10921} = (8, 20, 9, 1)$ lies on line c_{26}
 194 : $P_{10937} = (24, 20, 9, 1)$ lies on line a_2
 195 : $P_{10948} = (3, 21, 9, 1)$ lies on line c_{26}
 196 : $P_{10963} = (18, 21, 9, 1)$ lies on line a_2
 197 : $P_{11007} = (30, 22, 9, 1)$ lies on line c_{26}
 198 : $P_{11030} = (21, 23, 9, 1)$ lies on line c_{26}
 199 : $P_{11056} = (15, 24, 9, 1)$ lies on line a_2
 200 : $P_{11078} = (5, 25, 9, 1)$ lies on line a_2
 201 : $P_{11097} = (24, 25, 9, 1)$ lies on line c_{26}
 202 : $P_{11110} = (5, 26, 9, 1)$ lies on line c_{26}
 203 : $P_{11132} = (27, 26, 9, 1)$ lies on line a_2
 204 : $P_{11154} = (17, 27, 9, 1)$ lies on line a_2
 205 : $P_{11171} = (2, 28, 9, 1)$ lies on line a_2
 206 : $P_{11195} = (26, 28, 9, 1)$ lies on line c_{26}
 207 : $P_{11209} = (8, 29, 9, 1)$ lies on line a_2
 208 : $P_{11218} = (17, 29, 9, 1)$ lies on line c_{26}
 209 : $P_{11245} = (12, 30, 9, 1)$ lies on line c_{26}
 210 : $P_{11255} = (22, 30, 9, 1)$ lies on line a_2
 211 : $P_{11272} = (7, 31, 9, 1)$ lies on line c_{26}
 212 : $P_{11297} = (0, 0, 10, 1)$ lies on line c_{45}
 213 : $P_{11583} = (30, 8, 10, 1)$ lies on line b_2
 214 : $P_{11655} = (6, 11, 10, 1)$ lies on line c_{12}
 215 : $P_{11684} = (3, 12, 10, 1)$ lies on line c_{23}
 216 : $P_{11703} = (22, 12, 10, 1)$ lies on line c_{34}
 217 : $P_{11745} = (0, 14, 10, 1)$ lies on line c_{15}
 218 : $P_{11768} = (23, 14, 10, 1)$ lies on line b_3
 219 : $P_{11792} = (15, 15, 10, 1)$ lies on line c_{24}
 220 : $P_{11874} = (1, 18, 10, 1)$ lies on line c_{35}
 221 : $P_{12015} = (14, 22, 10, 1)$ lies on line b_4
 222 : $P_{12117} = (20, 25, 10, 1)$ lies on line a_6
 223 : $P_{12175} = (14, 27, 10, 1)$ lies on line c_{13}
 224 : $P_{12337} = (16, 0, 11, 1)$ lies on line a_3
 225 : $P_{12368} = (15, 1, 11, 1)$ lies on line c_{36}
 226 : $P_{12397} = (12, 2, 11, 1)$ lies on line a_3
 227 : $P_{12419} = (2, 3, 11, 1)$ lies on line a_3

228 : $P_{12434} = (17, 3, 11, 1)$ lies on line c_{36}
 229 : $P_{12474} = (25, 4, 11, 1)$ lies on line c_{36}
 230 : $P_{12484} = (3, 5, 11, 1)$ lies on line a_3
 231 : $P_{12503} = (22, 5, 11, 1)$ lies on line c_{36}
 232 : $P_{12520} = (7, 6, 11, 1)$ lies on line c_{36}
 233 : $P_{12530} = (17, 6, 11, 1)$ lies on line a_3
 234 : $P_{12576} = (31, 7, 11, 1)$ lies on line a_3
 235 : $P_{12592} = (15, 8, 11, 1)$ lies on line a_3
 236 : $P_{12600} = (23, 8, 11, 1)$ lies on line c_{36}
 237 : $P_{12610} = (1, 9, 11, 1)$ lies on line a_3
 238 : $P_{12633} = (24, 9, 11, 1)$ lies on line c_{36}
 239 : $P_{12660} = (19, 10, 11, 1)$ lies on line a_3
 240 : $P_{12679} = (6, 11, 11, 1)$ lies on line c_{36}
 241 : $P_{12702} = (29, 11, 11, 1)$ lies on line a_3
 242 : $P_{12723} = (18, 12, 11, 1)$ lies on line a_3
 243 : $P_{12738} = (1, 13, 11, 1)$ lies on line c_{36}
 244 : $P_{12765} = (28, 13, 11, 1)$ lies on line a_3
 245 : $P_{12783} = (14, 14, 11, 1)$ lies on line a_3
 246 : $P_{12785} = (16, 14, 11, 1)$ lies on line c_{36}
 247 : $P_{12801} = (0, 15, 11, 1)$ lies on line a_3
 248 : $P_{12832} = (31, 15, 11, 1)$ lies on line c_{36}
 249 : $P_{12869} = (4, 17, 11, 1)$ lies on line c_{36}
 250 : $P_{12870} = (5, 17, 11, 1)$ lies on line a_3
 251 : $P_{12918} = (21, 18, 11, 1)$ lies on line c_{36}
 252 : $P_{12954} = (25, 19, 11, 1)$ lies on line a_3
 253 : $P_{12955} = (26, 19, 11, 1)$ lies on line c_{36}
 254 : $P_{12983} = (22, 20, 11, 1)$ lies on line a_3
 255 : $P_{13022} = (29, 21, 11, 1)$ lies on line c_{36}
 256 : $P_{13035} = (10, 22, 11, 1)$ lies on line a_3
 257 : $P_{13037} = (12, 22, 11, 1)$ lies on line c_{36}
 258 : $P_{13060} = (3, 23, 11, 1)$ lies on line c_{36}
 259 : $P_{13061} = (4, 23, 11, 1)$ lies on line a_3
 260 : $P_{13117} = (28, 24, 11, 1)$ lies on line c_{36}
 261 : $P_{13140} = (19, 25, 11, 1)$ lies on line c_{36}
 262 : $P_{13161} = (8, 26, 11, 1)$ lies on line a_3
 263 : $P_{13198} = (13, 27, 11, 1)$ lies on line c_{36}
 264 : $P_{13222} = (5, 28, 11, 1)$ lies on line c_{36}
 265 : $P_{13226} = (9, 28, 11, 1)$ lies on line a_3
 266 : $P_{13256} = (7, 29, 11, 1)$ lies on line a_3
 267 : $P_{13259} = (10, 29, 11, 1)$ lies on line c_{36}
 268 : $P_{13308} = (27, 30, 11, 1)$ lies on line c_{36}
 269 : $P_{13333} = (20, 31, 11, 1)$ lies on line c_{36}
 270 : $P_{13340} = (27, 31, 11, 1)$ lies on line a_3
 271 : $P_{13345} = (0, 0, 12, 1)$ lies on line c_{45}
 272 : $P_{13497} = (24, 4, 12, 1)$ lies on line c_{25}
 273 : $P_{13572} = (3, 7, 12, 1)$ lies on line c_{34}
 274 : $P_{13619} = (18, 8, 12, 1)$ lies on line c_{13}
 275 : $P_{13646} = (13, 9, 12, 1)$ lies on line a_6
 276 : $P_{13713} = (16, 11, 12, 1)$ lies on line c_{35}
 277 : $P_{13765} = (4, 13, 12, 1)$ lies on line b_2
 278 : $P_{13849} = (24, 15, 12, 1)$ lies on line c_{23}
 279 : $P_{13914} = (25, 17, 12, 1)$ lies on line b_4
 280 : $P_{14003} = (18, 20, 12, 1)$ lies on line c_{12}
 281 : $P_{14045} = (28, 21, 12, 1)$ lies on line c_{14}
 282 : $P_{14074} = (25, 22, 12, 1)$ lies on line b_3
 283 : $P_{14206} = (29, 26, 12, 1)$ lies on line c_{24}
 284 : $P_{14236} = (27, 27, 12, 1)$ lies on line b_1
 285 : $P_{14369} = (0, 0, 13, 1)$ lies on line c_{45}
 286 : $P_{14384} = (15, 0, 13, 1)$ lies on line c_{15}
 287 : $P_{14406} = (5, 1, 13, 1)$ lies on line c_{35}
 288 : $P_{14412} = (11, 1, 13, 1)$ lies on line c_{13}
 289 : $P_{14700} = (11, 10, 13, 1)$ lies on line c_{34}
 290 : $P_{14729} = (8, 11, 13, 1)$ lies on line b_1
 291 : $P_{14971} = (26, 18, 13, 1)$ lies on line c_{24}
 292 : $P_{15216} = (15, 26, 13, 1)$ lies on line c_{25}
 293 : $P_{15233} = (0, 27, 13, 1)$ lies on line c_{14}
 294 : $P_{15311} = (14, 29, 13, 1)$ lies on line c_{23}
 295 : $P_{15325} = (28, 29, 13, 1)$ lies on line b_5
 296 : $P_{15342} = (13, 30, 13, 1)$ lies on line b_4
 297 : $P_{15357} = (28, 30, 13, 1)$ lies on line b_2
 298 : $P_{15381} = (20, 31, 13, 1)$ lies on line c_{12}
 299 : $P_{15393} = (0, 0, 14, 1)$ lies on line c_{45}
 300 : $P_{15487} = (30, 2, 14, 1)$ lies on line c_{12}
 301 : $P_{15614} = (29, 6, 14, 1)$ lies on line c_{15}
 302 : $P_{15682} = (1, 9, 14, 1)$ lies on line c_{14}
 303 : $P_{15732} = (19, 10, 14, 1)$ lies on line c_{24}
 304 : $P_{15893} = (20, 15, 14, 1)$ lies on line b_4
 305 : $P_{16223} = (30, 25, 14, 1)$ lies on line b_5
 306 : $P_{16230} = (5, 26, 14, 1)$ lies on line c_{13}
 307 : $P_{16250} = (25, 26, 14, 1)$ lies on line a_6
 308 : $P_{16353} = (0, 30, 14, 1)$ lies on line b_3
 309 : $P_{16377} = (24, 30, 14, 1)$ lies on line b_1
 310 : $P_{16416} = (31, 31, 14, 1)$ lies on line c_{35}
 311 : $P_{16430} = (13, 0, 15, 1)$ lies on line c_{56}
 312 : $P_{16480} = (31, 1, 15, 1)$ lies on line a_5
 313 : $P_{16508} = (27, 2, 15, 1)$ lies on line a_5
 314 : $P_{16523} = (10, 3, 15, 1)$ lies on line c_{56}
 315 : $P_{16571} = (26, 4, 15, 1)$ lies on line c_{56}
 316 : $P_{16581} = (4, 5, 15, 1)$ lies on line c_{56}
 317 : $P_{16589} = (12, 5, 15, 1)$ lies on line a_5
 318 : $P_{16617} = (8, 6, 15, 1)$ lies on line a_5
 319 : $P_{16664} = (23, 7, 15, 1)$ lies on line a_5
 320 : $P_{16676} = (3, 8, 15, 1)$ lies on line a_5
 321 : $P_{16679} = (6, 8, 15, 1)$ lies on line c_{56}
 322 : $P_{16733} = (28, 9, 15, 1)$ lies on line a_5
 323 : $P_{16761} = (24, 10, 15, 1)$ lies on line a_5
 324 : $P_{16768} = (31, 10, 15, 1)$ lies on line c_{56}
 325 : $P_{16770} = (1, 11, 15, 1)$ lies on line c_{56}
 326 : $P_{16776} = (7, 11, 15, 1)$ lies on line a_5
 327 : $P_{16817} = (16, 12, 15, 1)$ lies on line a_5
 328 : $P_{16818} = (17, 12, 15, 1)$ lies on line c_{56}
 329 : $P_{16873} = (8, 14, 15, 1)$ lies on line c_{56}
 330 : $P_{16917} = (20, 15, 15, 1)$ lies on line a_5
 331 : $P_{16919} = (22, 15, 15, 1)$ lies on line c_{56}
 332 : $P_{16935} = (6, 16, 15, 1)$ lies on line a_5
 333 : $P_{16966} = (5, 17, 15, 1)$ lies on line c_{56}
 334 : $P_{16986} = (25, 17, 15, 1)$ lies on line a_5
 335 : $P_{16995} = (2, 18, 15, 1)$ lies on line c_{56}

336 : $P_{17022} = (29, 18, 15, 1)$ lies on line a_5
 337 : $P_{17027} = (2, 19, 15, 1)$ lies on line a_5
 338 : $P_{17069} = (12, 20, 15, 1)$ lies on line c_{56}
 339 : $P_{17078} = (21, 20, 15, 1)$ lies on line a_5
 340 : $P_{17107} = (18, 21, 15, 1)$ lies on line c_{56}
 341 : $P_{17135} = (14, 22, 15, 1)$ lies on line a_5
 342 : $P_{17142} = (21, 22, 15, 1)$ lies on line c_{56}
 343 : $P_{17164} = (11, 23, 15, 1)$ lies on line c_{56}
 344 : $P_{17170} = (17, 23, 15, 1)$ lies on line a_5
 345 : $P_{17190} = (5, 24, 15, 1)$ lies on line a_5
 346 : $P_{17201} = (16, 24, 15, 1)$ lies on line c_{56}
 347 : $P_{17231} = (14, 25, 15, 1)$ lies on line c_{56}
 348 : $P_{17243} = (26, 25, 15, 1)$ lies on line a_5
 349 : $P_{17258} = (9, 26, 15, 1)$ lies on line c_{56}
 350 : $P_{17282} = (1, 27, 15, 1)$ lies on line a_5
 351 : $P_{17304} = (23, 27, 15, 1)$ lies on line c_{56}
 352 : $P_{17335} = (22, 28, 15, 1)$ lies on line a_5
 353 : $P_{17370} = (25, 29, 15, 1)$ lies on line c_{56}
 354 : $P_{17390} = (13, 30, 15, 1)$ lies on line a_5
 355 : $P_{17407} = (30, 30, 15, 1)$ lies on line c_{56}
 356 : $P_{17409} = (0, 31, 15, 1)$ lies on line c_{56}
 357 : $P_{17427} = (18, 31, 15, 1)$ lies on line a_5
 358 : $P_{17441} = (0, 0, 16, 1)$ lies on line c_{45}
 359 : $P_{17452} = (11, 0, 16, 1)$ lies on line a_6
 360 : $P_{17476} = (3, 1, 16, 1)$ lies on line c_{24}
 361 : $P_{17482} = (9, 1, 16, 1)$ lies on line c_{23}
 362 : $P_{17706} = (9, 8, 16, 1)$ lies on line b_1
 363 : $P_{17748} = (19, 9, 16, 1)$ lies on line b_3
 364 : $P_{17836} = (11, 12, 16, 1)$ lies on line c_{14}
 365 : $P_{17857} = (0, 13, 16, 1)$ lies on line c_{35}
 366 : $P_{17905} = (16, 14, 16, 1)$ lies on line c_{12}
 367 : $P_{17910} = (21, 14, 16, 1)$ lies on line c_{25}
 368 : $P_{17927} = (6, 15, 16, 1)$ lies on line c_{13}
 369 : $P_{18091} = (10, 20, 16, 1)$ lies on line b_5
 370 : $P_{18102} = (21, 20, 16, 1)$ lies on line b_4
 371 : $P_{18445} = (12, 31, 16, 1)$ lies on line b_2
 372 : $P_{18465} = (0, 0, 17, 1)$ lies on line c_{45}
 373 : $P_{18552} = (23, 2, 17, 1)$ lies on line c_{14}
 374 : $P_{18647} = (22, 5, 17, 1)$ lies on line c_{12}
 375 : $P_{18688} = (31, 6, 17, 1)$ lies on line c_{13}
 376 : $P_{18710} = (21, 7, 17, 1)$ lies on line c_{35}
 377 : $P_{18757} = (4, 9, 17, 1)$ lies on line c_{24}
 378 : $P_{18840} = (23, 11, 17, 1)$ lies on line b_5
 379 : $P_{18869} = (20, 12, 17, 1)$ lies on line b_2
 380 : $P_{18894} = (13, 13, 17, 1)$ lies on line b_3
 381 : $P_{18979} = (2, 16, 17, 1)$ lies on line c_{25}
 382 : $P_{19057} = (16, 18, 17, 1)$ lies on line c_{34}
 383 : $P_{19104} = (31, 19, 17, 1)$ lies on line c_{23}
 384 : $P_{19259} = (26, 24, 17, 1)$ lies on line b_1
 385 : $P_{19415} = (22, 29, 17, 1)$ lies on line c_{15}
 386 : $P_{19491} = (2, 0, 18, 1)$ lies on line a_1
 387 : $P_{19530} = (9, 1, 18, 1)$ lies on line c_{16}
 388 : $P_{19611} = (26, 3, 18, 1)$ lies on line a_1
 389 : $P_{19612} = (27, 3, 18, 1)$ lies on line c_{16}
 390 : $P_{19618} = (1, 4, 18, 1)$ lies on line c_{16}
 391 : $P_{19624} = (7, 4, 18, 1)$ lies on line a_1
 392 : $P_{19664} = (15, 5, 18, 1)$ lies on line a_1
 393 : $P_{19700} = (19, 6, 18, 1)$ lies on line c_{16}
 394 : $P_{19704} = (23, 6, 18, 1)$ lies on line a_1
 395 : $P_{19739} = (26, 7, 18, 1)$ lies on line c_{16}
 396 : $P_{19744} = (31, 7, 18, 1)$ lies on line a_1
 397 : $P_{19747} = (2, 8, 18, 1)$ lies on line c_{16}
 398 : $P_{19753} = (8, 8, 18, 1)$ lies on line a_1
 399 : $P_{19777} = (0, 9, 18, 1)$ lies on line a_1
 400 : $P_{19788} = (11, 9, 18, 1)$ lies on line c_{16}
 401 : $P_{19825} = (16, 10, 18, 1)$ lies on line c_{16}
 402 : $P_{19857} = (16, 11, 18, 1)$ lies on line a_1
 403 : $P_{19866} = (25, 11, 18, 1)$ lies on line c_{16}
 404 : $P_{19876} = (3, 12, 18, 1)$ lies on line c_{16}
 405 : $P_{19886} = (13, 12, 18, 1)$ lies on line a_1
 406 : $P_{19910} = (5, 13, 18, 1)$ lies on line a_1
 407 : $P_{19954} = (17, 14, 18, 1)$ lies on line c_{16}
 408 : $P_{19966} = (29, 14, 18, 1)$ lies on line a_1
 409 : $P_{19993} = (24, 15, 18, 1)$ lies on line c_{16}
 410 : $P_{20005} = (4, 16, 18, 1)$ lies on line c_{16}
 411 : $P_{20063} = (30, 17, 18, 1)$ lies on line a_1
 412 : $P_{20071} = (6, 18, 18, 1)$ lies on line a_1
 413 : $P_{20087} = (22, 18, 18, 1)$ lies on line c_{16}
 414 : $P_{20111} = (14, 19, 18, 1)$ lies on line a_1
 415 : $P_{20134} = (5, 20, 18, 1)$ lies on line c_{16}
 416 : $P_{20148} = (19, 20, 18, 1)$ lies on line a_1
 417 : $P_{20173} = (12, 21, 18, 1)$ lies on line c_{16}
 418 : $P_{20188} = (27, 21, 18, 1)$ lies on line a_1
 419 : $P_{20196} = (3, 22, 18, 1)$ lies on line a_1
 420 : $P_{20216} = (23, 22, 18, 1)$ lies on line c_{16}
 421 : $P_{20236} = (11, 23, 18, 1)$ lies on line a_1
 422 : $P_{20263} = (6, 24, 18, 1)$ lies on line c_{16}
 423 : $P_{20309} = (20, 25, 18, 1)$ lies on line a_1
 424 : $P_{20333} = (12, 26, 18, 1)$ lies on line a_1
 425 : $P_{20341} = (20, 26, 18, 1)$ lies on line c_{16}
 426 : $P_{20382} = (29, 27, 18, 1)$ lies on line c_{16}
 427 : $P_{20392} = (7, 28, 18, 1)$ lies on line c_{16}
 428 : $P_{20431} = (14, 29, 18, 1)$ lies on line c_{16}
 429 : $P_{20458} = (9, 30, 18, 1)$ lies on line a_1
 430 : $P_{20470} = (21, 30, 18, 1)$ lies on line c_{16}
 431 : $P_{20482} = (1, 31, 18, 1)$ lies on line a_1
 432 : $P_{20509} = (28, 31, 18, 1)$ lies on line c_{16}
 433 : $P_{20513} = (0, 0, 19, 1)$ lies on line c_{45}
 434 : $P_{20685} = (12, 5, 19, 1)$ lies on line b_4
 435 : $P_{20693} = (20, 5, 19, 1)$ lies on line b_3
 436 : $P_{20769} = (0, 8, 19, 1)$ lies on line c_{34}
 437 : $P_{20790} = (21, 8, 19, 1)$ lies on line a_6
 438 : $P_{20810} = (9, 9, 19, 1)$ lies on line c_{25}
 439 : $P_{20994} = (1, 15, 19, 1)$ lies on line b_2
 440 : $P_{21033} = (8, 16, 19, 1)$ lies on line b_5
 441 : $P_{21111} = (22, 18, 19, 1)$ lies on line c_{23}
 442 : $P_{21161} = (8, 20, 19, 1)$ lies on line c_{13}
 443 : $P_{21466} = (25, 29, 19, 1)$ lies on line b_1

444 : $P_{21483} = (10, 30, 19, 1)$ lies on line c_{14}
 445 : $P_{21537} = (0, 0, 20, 1)$ lies on line c_{45}
 446 : $P_{21567} = (30, 0, 20, 1)$ lies on line c_{35}
 447 : $P_{21616} = (15, 2, 20, 1)$ lies on line b_1
 448 : $P_{21639} = (6, 3, 20, 1)$ lies on line a_6
 449 : $P_{21660} = (27, 3, 20, 1)$ lies on line c_{23}
 450 : $P_{21696} = (31, 4, 20, 1)$ lies on line c_{24}
 451 : $P_{21769} = (8, 7, 20, 1)$ lies on line c_{12}
 452 : $P_{21778} = (17, 7, 20, 1)$ lies on line b_5
 453 : $P_{21968} = (15, 13, 20, 1)$ lies on line b_4
 454 : $P_{21998} = (13, 14, 20, 1)$ lies on line c_{13}
 455 : $P_{22014} = (29, 14, 20, 1)$ lies on line c_{34}
 456 : $P_{22101} = (20, 17, 20, 1)$ lies on line c_{14}
 457 : $P_{22278} = (5, 23, 20, 1)$ lies on line c_{15}
 458 : $P_{22341} = (4, 25, 20, 1)$ lies on line b_3
 459 : $P_{22561} = (0, 0, 21, 1)$ lies on line c_{45}
 460 : $P_{22652} = (27, 2, 21, 1)$ lies on line b_4
 461 : $P_{22678} = (21, 3, 21, 1)$ lies on line c_{34}
 462 : $P_{22892} = (11, 10, 21, 1)$ lies on line c_{35}
 463 : $P_{22908} = (27, 10, 21, 1)$ lies on line b_2
 464 : $P_{22959} = (14, 12, 21, 1)$ lies on line c_{12}
 465 : $P_{22969} = (24, 12, 21, 1)$ lies on line c_{24}
 466 : $P_{23118} = (13, 17, 21, 1)$ lies on line c_{23}
 467 : $P_{23165} = (28, 18, 21, 1)$ lies on line b_1
 468 : $P_{23244} = (11, 21, 21, 1)$ lies on line c_{15}
 469 : $P_{23515} = (26, 29, 21, 1)$ lies on line b_3
 470 : $P_{23561} = (8, 31, 21, 1)$ lies on line c_{14}
 471 : $P_{23585} = (0, 0, 22, 1)$ lies on line c_{45}
 472 : $P_{23593} = (8, 0, 22, 1)$ lies on line c_{25}
 473 : $P_{23667} = (18, 2, 22, 1)$ lies on line c_{23}
 474 : $P_{23821} = (12, 7, 22, 1)$ lies on line b_1
 475 : $P_{24010} = (9, 13, 22, 1)$ lies on line c_{14}
 476 : $P_{24115} = (18, 16, 22, 1)$ lies on line a_6
 477 : $P_{24133} = (4, 17, 22, 1)$ lies on line c_{12}
 478 : $P_{24158} = (29, 17, 22, 1)$ lies on line b_3
 479 : $P_{24195} = (2, 19, 22, 1)$ lies on line b_4
 480 : $P_{24218} = (25, 19, 22, 1)$ lies on line c_{15}
 481 : $P_{24238} = (13, 20, 22, 1)$ lies on line c_{34}
 482 : $P_{24439} = (22, 26, 22, 1)$ lies on line b_2
 483 : $P_{24495} = (14, 28, 22, 1)$ lies on line b_5
 484 : $P_{24507} = (26, 28, 22, 1)$ lies on line c_{13}
 485 : $P_{24609} = (0, 0, 23, 1)$ lies on line c_{45}
 486 : $P_{24724} = (19, 3, 23, 1)$ lies on line b_5
 487 : $P_{24726} = (21, 3, 23, 1)$ lies on line c_{14}
 488 : $P_{24911} = (14, 9, 23, 1)$ lies on line b_2
 489 : $P_{24985} = (24, 11, 23, 1)$ lies on line a_6
 490 : $P_{25125} = (4, 16, 23, 1)$ lies on line c_{23}
 491 : $P_{25176} = (23, 17, 23, 1)$ lies on line c_{15}
 492 : $P_{25376} = (31, 23, 23, 1)$ lies on line b_1
 493 : $P_{25414} = (5, 25, 23, 1)$ lies on line c_{34}
 494 : $P_{25443} = (2, 26, 23, 1)$ lies on line c_{12}
 495 : $P_{25573} = (4, 30, 23, 1)$ lies on line c_{35}
 496 : $P_{25600} = (31, 30, 23, 1)$ lies on line c_{25}
 497 : $P_{25633} = (0, 0, 24, 1)$ lies on line c_{45}

498 : $P_{25733} = (4, 3, 24, 1)$ lies on line b_4
 499 : $P_{25801} = (8, 5, 24, 1)$ lies on line c_{23}
 500 : $P_{25821} = (28, 5, 24, 1)$ lies on line c_{25}
 501 : $P_{25842} = (17, 6, 24, 1)$ lies on line a_6
 502 : $P_{26015} = (30, 11, 24, 1)$ lies on line c_{24}
 503 : $P_{26041} = (24, 12, 24, 1)$ lies on line b_3
 504 : $P_{26065} = (16, 13, 24, 1)$ lies on line c_{13}
 505 : $P_{26120} = (7, 15, 24, 1)$ lies on line c_{15}
 506 : $P_{26257} = (16, 19, 24, 1)$ lies on line c_{14}
 507 : $P_{26259} = (18, 19, 24, 1)$ lies on line b_2
 508 : $P_{26419} = (18, 24, 24, 1)$ lies on line c_{34}
 509 : $P_{26657} = (0, 0, 25, 1)$ lies on line c_{45}
 510 : $P_{26667} = (10, 0, 25, 1)$ lies on line b_2
 511 : $P_{26778} = (25, 3, 25, 1)$ lies on line c_{24}
 512 : $P_{26794} = (9, 4, 25, 1)$ lies on line c_{13}
 513 : $P_{26917} = (4, 8, 25, 1)$ lies on line b_5
 514 : $P_{26919} = (6, 8, 25, 1)$ lies on line b_3
 515 : $P_{27057} = (16, 12, 25, 1)$ lies on line b_4
 516 : $P_{27063} = (22, 12, 25, 1)$ lies on line b_1
 517 : $P_{27082} = (9, 13, 25, 1)$ lies on line c_{15}
 518 : $P_{27355} = (26, 21, 25, 1)$ lies on line c_{34}
 519 : $P_{27396} = (3, 23, 25, 1)$ lies on line c_{12}
 520 : $P_{27423} = (30, 23, 25, 1)$ lies on line c_{23}
 521 : $P_{27532} = (11, 27, 25, 1)$ lies on line c_{25}
 522 : $P_{27612} = (27, 29, 25, 1)$ lies on line a_6
 523 : $P_{27681} = (0, 0, 26, 1)$ lies on line c_{45}
 524 : $P_{27747} = (2, 2, 26, 1)$ lies on line c_{34}
 525 : $P_{27799} = (22, 3, 26, 1)$ lies on line c_{35}
 526 : $P_{28010} = (9, 10, 26, 1)$ lies on line c_{12}
 527 : $P_{28060} = (27, 11, 26, 1)$ lies on line c_{15}
 528 : $P_{28071} = (6, 12, 26, 1)$ lies on line b_5
 529 : $P_{28174} = (13, 15, 26, 1)$ lies on line c_{14}
 530 : $P_{28200} = (7, 16, 26, 1)$ lies on line b_2
 531 : $P_{28358} = (5, 21, 26, 1)$ lies on line a_6
 532 : $P_{28487} = (6, 25, 26, 1)$ lies on line b_1
 533 : $P_{28561} = (16, 27, 26, 1)$ lies on line c_{24}
 534 : $P_{28600} = (23, 28, 26, 1)$ lies on line c_{25}
 535 : $P_{28618} = (9, 29, 26, 1)$ lies on line b_4
 536 : $P_{28680} = (7, 31, 26, 1)$ lies on line c_{13}
 537 : $P_{28705} = (0, 0, 27, 1)$ lies on line c_{45}
 538 : $P_{28736} = (31, 0, 27, 1)$ lies on line b_3
 539 : $P_{28752} = (15, 1, 27, 1)$ lies on line c_{12}
 540 : $P_{28754} = (17, 1, 27, 1)$ lies on line c_{14}
 541 : $P_{28769} = (0, 2, 27, 1)$ lies on line c_{25}
 542 : $P_{28832} = (31, 3, 27, 1)$ lies on line b_2
 543 : $P_{28996} = (3, 9, 27, 1)$ lies on line c_{35}
 544 : $P_{29168} = (15, 14, 27, 1)$ lies on line a_6
 545 : $P_{29195} = (10, 15, 27, 1)$ lies on line c_{34}
 546 : $P_{29310} = (29, 18, 27, 1)$ lies on line b_4
 547 : $P_{29336} = (23, 19, 27, 1)$ lies on line c_{24}
 548 : $P_{29340} = (27, 19, 27, 1)$ lies on line b_5
 549 : $P_{29432} = (23, 22, 27, 1)$ lies on line c_{23}
 550 : $P_{29439} = (30, 22, 27, 1)$ lies on line c_{13}
 551 : $P_{29729} = (0, 0, 28, 1)$ lies on line c_{45}

552 : $P_{29859} = (2, 4, 28, 1)$ lies on line b_5
 553 : $P_{29917} = (28, 5, 28, 1)$ lies on line a_6
 554 : $P_{30040} = (23, 9, 28, 1)$ lies on line c_{34}
 555 : $P_{30140} = (27, 12, 28, 1)$ lies on line c_{13}
 556 : $P_{30179} = (2, 14, 28, 1)$ lies on line c_{24}
 557 : $P_{30192} = (15, 14, 28, 1)$ lies on line c_{14}
 558 : $P_{30315} = (10, 18, 28, 1)$ lies on line c_{25}
 559 : $P_{30436} = (3, 22, 28, 1)$ lies on line b_1
 560 : $P_{30568} = (7, 26, 28, 1)$ lies on line c_{35}
 561 : $P_{30591} = (30, 26, 28, 1)$ lies on line b_4
 562 : $P_{30640} = (15, 28, 28, 1)$ lies on line b_3
 563 : $P_{30753} = (0, 0, 29, 1)$ lies on line c_{45}
 564 : $P_{30772} = (19, 0, 29, 1)$ lies on line c_{14}
 565 : $P_{30912} = (31, 4, 29, 1)$ lies on line c_{34}
 566 : $P_{30915} = (2, 5, 29, 1)$ lies on line c_{13}
 567 : $P_{30933} = (20, 5, 29, 1)$ lies on line c_{15}
 568 : $P_{30961} = (16, 6, 29, 1)$ lies on line b_1
 569 : $P_{31166} = (29, 12, 29, 1)$ lies on line c_{25}
 570 : $P_{31283} = (18, 16, 29, 1)$ lies on line c_{35}
 571 : $P_{31435} = (10, 21, 29, 1)$ lies on line b_4
 572 : $P_{31437} = (12, 21, 29, 1)$ lies on line c_{23}
 573 : $P_{31538} = (17, 24, 29, 1)$ lies on line b_3
 574 : $P_{31648} = (31, 27, 29, 1)$ lies on line b_5
 575 : $P_{31735} = (22, 30, 29, 1)$ lies on line a_6
 576 : $P_{31740} = (27, 30, 29, 1)$ lies on line c_{12}
 577 : $P_{31777} = (0, 0, 30, 1)$ lies on line c_{45}
 578 : $P_{31879} = (6, 3, 30, 1)$ lies on line c_{15}
 579 : $P_{31890} = (17, 3, 30, 1)$ lies on line c_{12}
 580 : $P_{31924} = (19, 4, 30, 1)$ lies on line b_4
 581 : $P_{31988} = (19, 6, 30, 1)$ lies on line c_{23}
 582 : $P_{32130} = (1, 11, 30, 1)$ lies on line c_{25}
 583 : $P_{32233} = (8, 14, 30, 1)$ lies on line c_{35}
 584 : $P_{32371} = (18, 18, 30, 1)$ lies on line c_{14}
 585 : $P_{32385} = (0, 19, 30, 1)$ lies on line b_1
 586 : $P_{32392} = (7, 19, 30, 1)$ lies on line c_{34}
 587 : $P_{32439} = (22, 20, 30, 1)$ lies on line b_3
 588 : $P_{32798} = (29, 31, 30, 1)$ lies on line b_5
 589 : $P_{32828} = (27, 0, 31, 1)$ lies on line c_{46}
 590 : $P_{32851} = (18, 1, 31, 1)$ lies on line a_4
 591 : $P_{32866} = (1, 2, 31, 1)$ lies on line a_4
 592 : $P_{32889} = (24, 2, 31, 1)$ lies on line c_{46}
 593 : $P_{32908} = (11, 3, 31, 1)$ lies on line c_{46}
 594 : $P_{32931} = (2, 4, 31, 1)$ lies on line a_4
 595 : $P_{32975} = (14, 5, 31, 1)$ lies on line c_{46}
 596 : $P_{32996} = (3, 6, 31, 1)$ lies on line a_4
 597 : $P_{33023} = (30, 6, 31, 1)$ lies on line c_{46}
 598 : $P_{33038} = (13, 7, 31, 1)$ lies on line c_{46}
 599 : $P_{33042} = (17, 7, 31, 1)$ lies on line a_4
 600 : $P_{33061} = (4, 8, 31, 1)$ lies on line a_4
 601 : $P_{33093} = (4, 9, 31, 1)$ lies on line c_{46}
 602 : $P_{33111} = (22, 9, 31, 1)$ lies on line a_4
 603 : $P_{33126} = (5, 10, 31, 1)$ lies on line a_4
 604 : $P_{33141} = (20, 10, 31, 1)$ lies on line c_{46}
 605 : $P_{33176} = (23, 11, 31, 1)$ lies on line a_4
 606 : $P_{33191} = (6, 12, 31, 1)$ lies on line a_4
 607 : $P_{33202} = (17, 12, 31, 1)$ lies on line c_{46}
 608 : $P_{33237} = (20, 13, 31, 1)$ lies on line a_4
 609 : $P_{33256} = (7, 14, 31, 1)$ lies on line a_4
 610 : $P_{33267} = (18, 14, 31, 1)$ lies on line c_{46}
 611 : $P_{33282} = (1, 15, 31, 1)$ lies on line c_{46}
 612 : $P_{33302} = (21, 15, 31, 1)$ lies on line a_4
 613 : $P_{33316} = (3, 16, 31, 1)$ lies on line c_{46}
 614 : $P_{33361} = (16, 17, 31, 1)$ lies on line c_{46}
 615 : $P_{33371} = (26, 17, 31, 1)$ lies on line a_4
 616 : $P_{33377} = (0, 18, 31, 1)$ lies on line c_{46}
 617 : $P_{33386} = (9, 18, 31, 1)$ lies on line a_4
 618 : $P_{33428} = (19, 19, 31, 1)$ lies on line c_{46}
 619 : $P_{33436} = (27, 19, 31, 1)$ lies on line a_4
 620 : $P_{33451} = (10, 20, 31, 1)$ lies on line a_4
 621 : $P_{33497} = (24, 21, 31, 1)$ lies on line a_4
 622 : $P_{33511} = (6, 22, 31, 1)$ lies on line c_{46}
 623 : $P_{33562} = (25, 23, 31, 1)$ lies on line a_4
 624 : $P_{33581} = (12, 24, 31, 1)$ lies on line a_4
 625 : $P_{33584} = (15, 24, 31, 1)$ lies on line c_{46}
 626 : $P_{33629} = (28, 25, 31, 1)$ lies on line c_{46}
 627 : $P_{33631} = (30, 25, 31, 1)$ lies on line a_4
 628 : $P_{33645} = (12, 26, 31, 1)$ lies on line c_{46}
 629 : $P_{33646} = (13, 26, 31, 1)$ lies on line a_4
 630 : $P_{33706} = (9, 28, 31, 1)$ lies on line c_{46}
 631 : $P_{33755} = (26, 29, 31, 1)$ lies on line c_{46}
 632 : $P_{33757} = (28, 29, 31, 1)$ lies on line a_4
 633 : $P_{33771} = (10, 30, 31, 1)$ lies on line c_{46}
 634 : $P_{33818} = (25, 31, 31, 1)$ lies on line c_{46}
 635 : $P_{33822} = (29, 31, 31, 1)$ lies on line a_4

The single points on the surface are:

Points on surface but on no line

The surface has 488 points not on any line:

The points on the surface but not on lines are:

0 : $P_{111} = (12, 2, 1, 0)$	54 : $P_{3406} = (13, 9, 2, 1)$
1 : $P_{189} = (26, 4, 1, 0)$	55 : $P_{3642} = (25, 16, 2, 1)$
2 : $P_{306} = (15, 8, 1, 0)$	56 : $P_{3644} = (27, 16, 2, 1)$
3 : $P_{339} = (16, 9, 1, 0)$	57 : $P_{3709} = (28, 18, 2, 1)$
4 : $P_{386} = (31, 10, 1, 0)$	58 : $P_{3849} = (8, 23, 2, 1)$
5 : $P_{400} = (13, 11, 1, 0)$	59 : $P_{3854} = (13, 23, 2, 1)$
6 : $P_{456} = (5, 13, 1, 0)$	60 : $P_{4036} = (3, 29, 2, 1)$
7 : $P_{501} = (18, 14, 1, 0)$	61 : $P_{4045} = (12, 29, 2, 1)$
8 : $P_{542} = (27, 15, 1, 0)$	62 : $P_{4084} = (19, 30, 2, 1)$
9 : $P_{550} = (3, 16, 1, 0)$	63 : $P_{4100} = (3, 31, 2, 1)$
10 : $P_{615} = (4, 18, 1, 0)$	64 : $P_{4157} = (28, 0, 3, 1)$
11 : $P_{654} = (11, 19, 1, 0)$	65 : $P_{4212} = (19, 2, 3, 1)$
12 : $P_{916} = (17, 27, 1, 0)$	66 : $P_{4285} = (28, 4, 3, 1)$
13 : $P_{1004} = (9, 30, 1, 0)$	67 : $P_{4289} = (0, 5, 3, 1)$
14 : $P_{1029} = (2, 31, 1, 0)$	68 : $P_{4335} = (14, 6, 3, 1)$
15 : $P_{1091} = (1, 1, 0, 1)$	69 : $P_{4515} = (2, 12, 3, 1)$
16 : $P_{1126} = (4, 2, 0, 1)$	70 : $P_{4531} = (18, 12, 3, 1)$
17 : $P_{1202} = (16, 4, 0, 1)$	71 : $P_{4549} = (4, 13, 3, 1)$
18 : $P_{1270} = (20, 6, 0, 1)$	72 : $P_{4602} = (25, 14, 3, 1)$
19 : $P_{1324} = (10, 8, 0, 1)$	73 : $P_{4626} = (17, 15, 3, 1)$
20 : $P_{1392} = (14, 10, 0, 1)$	74 : $P_{4654} = (13, 16, 3, 1)$
21 : $P_{1501} = (27, 13, 0, 1)$	75 : $P_{4676} = (3, 17, 3, 1)$
22 : $P_{1536} = (30, 14, 0, 1)$	76 : $P_{4687} = (14, 17, 3, 1)$
23 : $P_{1583} = (13, 16, 0, 1)$	77 : $P_{4732} = (27, 18, 3, 1)$
24 : $P_{1674} = (8, 19, 0, 1)$	78 : $P_{4834} = (1, 22, 3, 1)$
25 : $P_{1727} = (29, 20, 0, 1)$	79 : $P_{4884} = (19, 23, 3, 1)$
26 : $P_{1787} = (25, 22, 0, 1)$	80 : $P_{4979} = (18, 26, 3, 1)$
27 : $P_{1864} = (6, 25, 0, 1)$	81 : $P_{5145} = (24, 31, 3, 1)$
28 : $P_{1924} = (2, 27, 0, 1)$	82 : $P_{5319} = (6, 5, 4, 1)$
29 : $P_{2008} = (22, 29, 0, 1)$	83 : $P_{5323} = (10, 5, 4, 1)$
30 : $P_{2037} = (19, 30, 0, 1)$	84 : $P_{5464} = (23, 9, 4, 1)$
31 : $P_{2083} = (1, 0, 1, 1)$	85 : $P_{5532} = (27, 11, 4, 1)$
32 : $P_{2114} = (0, 1, 1, 1)$	86 : $P_{5571} = (2, 13, 4, 1)$
33 : $P_{2166} = (21, 2, 1, 1)$	87 : $P_{5575} = (6, 13, 4, 1)$
34 : $P_{2237} = (28, 4, 1, 1)$	88 : $P_{5690} = (25, 16, 4, 1)$
35 : $P_{2296} = (23, 6, 1, 1)$	89 : $P_{5714} = (17, 17, 4, 1)$
36 : $P_{2334} = (29, 7, 1, 1)$	90 : $P_{5734} = (5, 18, 4, 1)$
37 : $P_{2521} = (24, 13, 1, 1)$	91 : $P_{5769} = (8, 19, 4, 1)$
38 : $P_{2616} = (23, 16, 1, 1)$	92 : $P_{5827} = (2, 21, 4, 1)$
39 : $P_{2745} = (24, 20, 1, 1)$	93 : $P_{5855} = (30, 21, 4, 1)$
40 : $P_{2775} = (22, 21, 1, 1)$	94 : $P_{5862} = (5, 22, 4, 1)$
41 : $P_{2806} = (21, 22, 1, 1)$	95 : $P_{5883} = (26, 22, 4, 1)$
42 : $P_{2823} = (6, 23, 1, 1)$	96 : $P_{5931} = (10, 24, 4, 1)$
43 : $P_{2869} = (20, 24, 1, 1)$	97 : $P_{5948} = (27, 24, 4, 1)$
44 : $P_{2909} = (28, 25, 1, 1)$	98 : $P_{6200} = (23, 0, 5, 1)$
45 : $P_{2952} = (7, 27, 1, 1)$	99 : $P_{6282} = (9, 3, 5, 1)$
46 : $P_{3002} = (25, 28, 1, 1)$	100 : $P_{6313} = (8, 4, 5, 1)$
47 : $P_{3016} = (7, 29, 1, 1)$	101 : $P_{6467} = (2, 9, 5, 1)$
48 : $P_{3209} = (8, 3, 2, 1)$	102 : $P_{6566} = (5, 12, 5, 1)$
49 : $P_{3226} = (25, 3, 2, 1)$	103 : $P_{6591} = (30, 12, 5, 1)$
50 : $P_{3255} = (22, 4, 2, 1)$	104 : $P_{6620} = (27, 13, 5, 1)$
51 : $P_{3270} = (5, 5, 2, 1)$	105 : $P_{6712} = (23, 16, 5, 1)$
52 : $P_{3343} = (14, 7, 2, 1)$	106 : $P_{6721} = (0, 17, 5, 1)$
53 : $P_{3356} = (27, 7, 2, 1)$	107 : $P_{6760} = (7, 18, 5, 1)$

108 : $P_{6847} = (30, 20, 5, 1)$	162 : $P_{9946} = (25, 21, 8, 1)$
109 : $P_{6953} = (8, 24, 5, 1)$	163 : $P_{9947} = (26, 21, 8, 1)$
110 : $P_{6978} = (1, 25, 5, 1)$	164 : $P_{10084} = (3, 26, 8, 1)$
111 : $P_{7013} = (4, 26, 5, 1)$	165 : $P_{10096} = (15, 26, 8, 1)$
112 : $P_{7018} = (9, 26, 5, 1)$	166 : $P_{10130} = (17, 27, 8, 1)$
113 : $P_{7057} = (16, 27, 5, 1)$	167 : $P_{10141} = (28, 27, 8, 1)$
114 : $P_{7143} = (6, 30, 5, 1)$	168 : $P_{10178} = (1, 29, 8, 1)$
115 : $P_{7181} = (12, 31, 5, 1)$	169 : $P_{10249} = (8, 31, 8, 1)$
116 : $P_{7250} = (17, 1, 6, 1)$	170 : $P_{11322} = (25, 0, 10, 1)$
117 : $P_{7263} = (30, 1, 6, 1)$	171 : $P_{11373} = (12, 2, 10, 1)$
118 : $P_{7268} = (3, 2, 6, 1)$	172 : $P_{11384} = (23, 2, 10, 1)$
119 : $P_{7374} = (13, 5, 6, 1)$	173 : $P_{11398} = (5, 3, 10, 1)$
120 : $P_{7508} = (19, 9, 6, 1)$	174 : $P_{11424} = (31, 3, 10, 1)$
121 : $P_{7509} = (20, 9, 6, 1)$	175 : $P_{11568} = (15, 8, 10, 1)$
122 : $P_{7651} = (2, 14, 6, 1)$	176 : $P_{11639} = (22, 10, 10, 1)$
123 : $P_{7734} = (21, 16, 6, 1)$	177 : $P_{11669} = (20, 11, 10, 1)$
124 : $P_{7760} = (15, 17, 6, 1)$	178 : $P_{11802} = (25, 15, 10, 1)$
125 : $P_{7761} = (16, 17, 6, 1)$	179 : $P_{11883} = (10, 18, 10, 1)$
126 : $P_{7782} = (5, 18, 6, 1)$	180 : $P_{11956} = (19, 20, 10, 1)$
127 : $P_{7802} = (25, 18, 6, 1)$	181 : $P_{11988} = (19, 21, 10, 1)$
128 : $P_{7841} = (0, 20, 6, 1)$	182 : $P_{12000} = (31, 21, 10, 1)$
129 : $P_{7867} = (26, 20, 6, 1)$	183 : $P_{12002} = (1, 22, 10, 1)$
130 : $P_{7887} = (14, 21, 6, 1)$	184 : $P_{12173} = (12, 27, 10, 1)$
131 : $P_{7894} = (21, 21, 6, 1)$	185 : $P_{12196} = (3, 28, 10, 1)$
132 : $P_{8095} = (30, 27, 6, 1)$	186 : $P_{12199} = (6, 28, 10, 1)$
133 : $P_{8114} = (17, 28, 6, 1)$	187 : $P_{13352} = (7, 0, 12, 1)$
134 : $P_{8237} = (12, 0, 7, 1)$	188 : $P_{13413} = (4, 2, 12, 1)$
135 : $P_{8309} = (20, 2, 7, 1)$	189 : $P_{13449} = (8, 3, 12, 1)$
136 : $P_{8315} = (26, 2, 7, 1)$	190 : $P_{13453} = (12, 3, 12, 1)$
137 : $P_{8410} = (25, 5, 7, 1)$	191 : $P_{13500} = (27, 4, 12, 1)$
138 : $P_{8451} = (2, 7, 7, 1)$	192 : $P_{13518} = (13, 5, 12, 1)$
139 : $P_{8628} = (19, 12, 7, 1)$	193 : $P_{13520} = (15, 5, 12, 1)$
140 : $P_{8694} = (21, 14, 7, 1)$	194 : $P_{13630} = (29, 8, 12, 1)$
141 : $P_{8696} = (23, 14, 7, 1)$	195 : $P_{13636} = (3, 9, 12, 1)$
142 : $P_{8721} = (16, 15, 7, 1)$	196 : $P_{13725} = (28, 11, 12, 1)$
143 : $P_{8885} = (20, 20, 7, 1)$	197 : $P_{13775} = (14, 13, 12, 1)$
144 : $P_{8897} = (0, 21, 7, 1)$	198 : $P_{13841} = (16, 15, 12, 1)$
145 : $P_{8922} = (25, 21, 7, 1)$	199 : $P_{13904} = (15, 17, 12, 1)$
146 : $P_{8971} = (10, 23, 7, 1)$	200 : $P_{13986} = (1, 20, 12, 1)$
147 : $P_{9011} = (18, 24, 7, 1)$	201 : $P_{14031} = (14, 21, 12, 1)$
148 : $P_{9074} = (17, 26, 7, 1)$	202 : $P_{14057} = (8, 22, 12, 1)$
149 : $P_{9115} = (26, 27, 7, 1)$	203 : $P_{14177} = (0, 26, 12, 1)$
150 : $P_{9123} = (2, 28, 7, 1)$	204 : $P_{14216} = (7, 27, 12, 1)$
151 : $P_{9139} = (18, 28, 7, 1)$	205 : $P_{14449} = (16, 2, 13, 1)$
152 : $P_{9223} = (6, 31, 7, 1)$	206 : $P_{14462} = (29, 2, 13, 1)$
153 : $P_{9271} = (22, 0, 8, 1)$	207 : $P_{14566} = (5, 6, 13, 1)$
154 : $P_{9471} = (30, 6, 8, 1)$	208 : $P_{14573} = (12, 6, 13, 1)$
155 : $P_{9488} = (15, 7, 8, 1)$	209 : $P_{14703} = (14, 10, 13, 1)$
156 : $P_{9503} = (30, 7, 8, 1)$	210 : $P_{14733} = (12, 11, 13, 1)$
157 : $P_{9534} = (29, 8, 8, 1)$	211 : $P_{14782} = (29, 12, 13, 1)$
158 : $P_{9543} = (6, 9, 8, 1)$	212 : $P_{14783} = (30, 12, 13, 1)$
159 : $P_{9623} = (22, 11, 8, 1)$	213 : $P_{14856} = (7, 15, 13, 1)$
160 : $P_{9682} = (17, 13, 8, 1)$	214 : $P_{15045} = (4, 21, 13, 1)$
161 : $P_{9868} = (11, 19, 8, 1)$	215 : $P_{15071} = (30, 21, 13, 1)$

216 : $P_{15113} = (8, 23, 13, 1)$
 217 : $P_{15121} = (16, 23, 13, 1)$
 218 : $P_{15227} = (26, 26, 13, 1)$
 219 : $P_{15253} = (20, 27, 13, 1)$
 220 : $P_{15365} = (4, 31, 13, 1)$
 221 : $P_{15399} = (6, 0, 14, 1)$
 222 : $P_{15483} = (26, 2, 14, 1)$
 223 : $P_{15545} = (24, 4, 14, 1)$
 224 : $P_{15547} = (26, 4, 14, 1)$
 225 : $P_{15570} = (17, 5, 14, 1)$
 226 : $P_{15571} = (18, 5, 14, 1)$
 227 : $P_{15695} = (14, 9, 14, 1)$
 228 : $P_{15744} = (31, 10, 14, 1)$
 229 : $P_{15866} = (25, 14, 14, 1)$
 230 : $P_{15902} = (29, 15, 14, 1)$
 231 : $P_{16134} = (5, 23, 14, 1)$
 232 : $P_{16149} = (20, 23, 14, 1)$
 233 : $P_{16194} = (1, 25, 14, 1)$
 234 : $P_{16297} = (8, 28, 14, 1)$
 235 : $P_{16307} = (18, 28, 14, 1)$
 236 : $P_{16329} = (8, 29, 14, 1)$
 237 : $P_{16391} = (6, 31, 14, 1)$
 238 : $P_{17667} = (2, 7, 16, 1)$
 239 : $P_{17679} = (14, 7, 16, 1)$
 240 : $P_{17707} = (10, 8, 16, 1)$
 241 : $P_{17746} = (17, 9, 16, 1)$
 242 : $P_{17817} = (24, 11, 16, 1)$
 243 : $P_{17837} = (12, 12, 16, 1)$
 244 : $P_{17863} = (6, 13, 16, 1)$
 245 : $P_{17923} = (2, 15, 16, 1)$
 246 : $P_{17999} = (14, 17, 16, 1)$
 247 : $P_{18005} = (20, 17, 16, 1)$
 248 : $P_{18244} = (3, 25, 16, 1)$
 249 : $P_{18258} = (17, 25, 16, 1)$
 250 : $P_{18309} = (4, 27, 16, 1)$
 251 : $P_{18325} = (20, 27, 16, 1)$
 252 : $P_{18341} = (4, 28, 16, 1)$
 253 : $P_{18356} = (19, 28, 16, 1)$
 254 : $P_{18489} = (24, 0, 17, 1)$
 255 : $P_{18542} = (13, 2, 17, 1)$
 256 : $P_{18572} = (11, 3, 17, 1)$
 257 : $P_{18577} = (16, 3, 17, 1)$
 258 : $P_{18636} = (11, 5, 17, 1)$
 259 : $P_{18658} = (1, 6, 17, 1)$
 260 : $P_{18699} = (10, 7, 17, 1)$
 261 : $P_{18774} = (21, 9, 17, 1)$
 262 : $P_{18821} = (4, 11, 17, 1)$
 263 : $P_{18849} = (0, 12, 17, 1)$
 264 : $P_{18905} = (24, 13, 17, 1)$
 265 : $P_{18987} = (10, 16, 17, 1)$
 266 : $P_{19067} = (26, 18, 17, 1)$
 267 : $P_{19093} = (20, 19, 17, 1)$
 268 : $P_{19314} = (17, 26, 17, 1)$
 269 : $P_{19316} = (19, 26, 17, 1)$

270 : $P_{19331} = (2, 27, 17, 1)$
 271 : $P_{19412} = (19, 29, 17, 1)$
 272 : $P_{20542} = (29, 0, 19, 1)$
 273 : $P_{20749} = (12, 7, 19, 1)$
 274 : $P_{20759} = (22, 7, 19, 1)$
 275 : $P_{20830} = (29, 9, 19, 1)$
 276 : $P_{20908} = (11, 12, 19, 1)$
 277 : $P_{20923} = (26, 12, 19, 1)$
 278 : $P_{20934} = (5, 13, 19, 1)$
 279 : $P_{20950} = (21, 13, 19, 1)$
 280 : $P_{21012} = (19, 15, 19, 1)$
 281 : $P_{21030} = (5, 16, 19, 1)$
 282 : $P_{21114} = (25, 18, 19, 1)$
 283 : $P_{21141} = (20, 19, 19, 1)$
 284 : $P_{21154} = (1, 20, 19, 1)$
 285 : $P_{21292} = (11, 24, 19, 1)$
 286 : $P_{21295} = (14, 24, 19, 1)$
 287 : $P_{21327} = (14, 25, 19, 1)$
 288 : $P_{21482} = (9, 30, 19, 1)$
 289 : $P_{21581} = (12, 1, 20, 1)$
 290 : $P_{21588} = (19, 1, 20, 1)$
 291 : $P_{21620} = (19, 2, 20, 1)$
 292 : $P_{21670} = (5, 4, 20, 1)$
 293 : $P_{21831} = (6, 9, 20, 1)$
 294 : $P_{21842} = (17, 9, 20, 1)$
 295 : $P_{21897} = (8, 11, 20, 1)$
 296 : $P_{21918} = (29, 11, 20, 1)$
 297 : $P_{21934} = (13, 12, 20, 1)$
 298 : $P_{21952} = (31, 12, 20, 1)$
 299 : $P_{21981} = (28, 13, 20, 1)$
 300 : $P_{22108} = (27, 17, 20, 1)$
 301 : $P_{22285} = (12, 23, 20, 1)$
 302 : $P_{22461} = (28, 28, 20, 1)$
 303 : $P_{22463} = (30, 28, 20, 1)$
 304 : $P_{22465} = (0, 29, 20, 1)$
 305 : $P_{22468} = (3, 29, 20, 1)$
 306 : $P_{22501} = (4, 30, 20, 1)$
 307 : $P_{22587} = (26, 0, 21, 1)$
 308 : $P_{22628} = (3, 2, 21, 1)$
 309 : $P_{22669} = (12, 3, 21, 1)$
 310 : $P_{22692} = (3, 4, 21, 1)$
 311 : $P_{22718} = (29, 4, 21, 1)$
 312 : $P_{22794} = (9, 7, 21, 1)$
 313 : $P_{23111} = (6, 17, 21, 1)$
 314 : $P_{23157} = (20, 18, 21, 1)$
 315 : $P_{23237} = (4, 21, 21, 1)$
 316 : $P_{23301} = (4, 23, 21, 1)$
 317 : $P_{23306} = (9, 23, 21, 1)$
 318 : $P_{23343} = (14, 24, 21, 1)$
 319 : $P_{23401} = (8, 26, 21, 1)$
 320 : $P_{23457} = (0, 28, 21, 1)$
 321 : $P_{23463} = (6, 28, 21, 1)$
 322 : $P_{23518} = (29, 29, 21, 1)$
 323 : $P_{23545} = (24, 30, 21, 1)$

324 : $P_{23549} = (28, 30, 21, 1)$
 325 : $P_{23566} = (13, 31, 21, 1)$
 326 : $P_{23620} = (3, 1, 22, 1)$
 327 : $P_{23627} = (10, 1, 22, 1)$
 328 : $P_{23673} = (24, 2, 22, 1)$
 329 : $P_{23683} = (2, 3, 22, 1)$
 330 : $P_{23690} = (9, 3, 22, 1)$
 331 : $P_{23812} = (3, 7, 22, 1)$
 332 : $P_{23854} = (13, 8, 22, 1)$
 333 : $P_{24013} = (12, 13, 22, 1)$
 334 : $P_{24091} = (26, 15, 22, 1)$
 335 : $P_{24094} = (29, 15, 22, 1)$
 336 : $P_{24107} = (10, 16, 22, 1)$
 337 : $P_{24361} = (8, 24, 22, 1)$
 338 : $P_{24377} = (24, 24, 22, 1)$
 339 : $P_{24385} = (0, 25, 22, 1)$
 340 : $P_{24402} = (17, 25, 22, 1)$
 341 : $P_{24421} = (4, 26, 22, 1)$
 342 : $P_{24591} = (14, 31, 22, 1)$
 343 : $P_{24602} = (25, 31, 22, 1)$
 344 : $P_{24614} = (5, 0, 23, 1)$
 345 : $P_{24783} = (14, 5, 23, 1)$
 346 : $P_{24846} = (13, 7, 23, 1)$
 347 : $P_{24848} = (15, 7, 23, 1)$
 348 : $P_{24886} = (21, 8, 23, 1)$
 349 : $P_{24889} = (24, 8, 23, 1)$
 350 : $P_{24899} = (2, 9, 23, 1)$
 351 : $P_{24983} = (22, 11, 23, 1)$
 352 : $P_{25042} = (17, 13, 23, 1)$
 353 : $P_{25050} = (25, 13, 23, 1)$
 354 : $P_{25138} = (17, 16, 23, 1)$
 355 : $P_{25156} = (3, 17, 23, 1)$
 356 : $P_{25300} = (19, 21, 23, 1)$
 357 : $P_{25358} = (13, 23, 23, 1)$
 358 : $P_{25377} = (0, 24, 23, 1)$
 359 : $P_{25406} = (29, 24, 23, 1)$
 360 : $P_{25434} = (25, 25, 23, 1)$
 361 : $P_{25470} = (29, 26, 23, 1)$
 362 : $P_{25520} = (15, 28, 23, 1)$
 363 : $P_{25650} = (17, 0, 24, 1)$
 364 : $P_{25751} = (22, 3, 24, 1)$
 365 : $P_{25831} = (6, 6, 24, 1)$
 366 : $P_{25857} = (0, 7, 24, 1)$
 367 : $P_{25879} = (22, 7, 24, 1)$
 368 : $P_{25960} = (7, 10, 24, 1)$
 369 : $P_{25981} = (28, 10, 24, 1)$
 370 : $P_{25989} = (4, 11, 24, 1)$
 371 : $P_{26022} = (5, 12, 24, 1)$
 372 : $P_{26061} = (12, 13, 24, 1)$
 373 : $P_{26138} = (25, 15, 24, 1)$
 374 : $P_{26207} = (30, 17, 24, 1)$
 375 : $P_{26332} = (27, 21, 24, 1)$
 376 : $P_{26336} = (31, 21, 24, 1)$
 377 : $P_{26400} = (31, 23, 24, 1)$

378 : $P_{26428} = (27, 24, 24, 1)$
 379 : $P_{26503} = (6, 27, 24, 1)$
 380 : $P_{26509} = (12, 27, 24, 1)$
 381 : $P_{26537} = (8, 28, 24, 1)$
 382 : $P_{26694} = (5, 1, 25, 1)$
 383 : $P_{26703} = (14, 1, 25, 1)$
 384 : $P_{26769} = (16, 3, 25, 1)$
 385 : $P_{26792} = (7, 4, 25, 1)$
 386 : $P_{26821} = (4, 5, 25, 1)$
 387 : $P_{26828} = (11, 5, 25, 1)$
 388 : $P_{26849} = (0, 6, 25, 1)$
 389 : $P_{26861} = (12, 6, 25, 1)$
 390 : $P_{26888} = (7, 7, 25, 1)$
 391 : $P_{26891} = (10, 7, 25, 1)$
 392 : $P_{27004} = (27, 10, 25, 1)$
 393 : $P_{27087} = (14, 13, 25, 1)$
 394 : $P_{27239} = (6, 18, 25, 1)$
 395 : $P_{27263} = (30, 18, 25, 1)$
 396 : $P_{27334} = (5, 21, 25, 1)$
 397 : $P_{27547} = (26, 27, 25, 1)$
 398 : $P_{27652} = (3, 31, 25, 1)$
 399 : $P_{27671} = (22, 31, 25, 1)$
 400 : $P_{27702} = (21, 0, 26, 1)$
 401 : $P_{27766} = (21, 2, 26, 1)$
 402 : $P_{27777} = (0, 3, 26, 1)$
 403 : $P_{27825} = (16, 4, 26, 1)$
 404 : $P_{27851} = (10, 5, 26, 1)$
 405 : $P_{27867} = (26, 5, 26, 1)$
 406 : $P_{28023} = (22, 10, 26, 1)$
 407 : $P_{28038} = (5, 11, 26, 1)$
 408 : $P_{28096} = (31, 12, 26, 1)$
 409 : $P_{28184} = (23, 15, 26, 1)$
 410 : $P_{28195} = (2, 16, 26, 1)$
 411 : $P_{28252} = (27, 17, 26, 1)$
 412 : $P_{28256} = (31, 17, 26, 1)$
 413 : $P_{28491} = (10, 25, 26, 1)$
 414 : $P_{28575} = (30, 27, 26, 1)$
 415 : $P_{28607} = (30, 28, 26, 1)$
 416 : $P_{28610} = (1, 29, 26, 1)$
 417 : $P_{28686} = (13, 31, 26, 1)$
 418 : $P_{28798} = (29, 2, 27, 1)$
 419 : $P_{28804} = (3, 3, 27, 1)$
 420 : $P_{28846} = (13, 4, 27, 1)$
 421 : $P_{28855} = (22, 4, 27, 1)$
 422 : $P_{29183} = (30, 14, 27, 1)$
 423 : $P_{29211} = (26, 15, 27, 1)$
 424 : $P_{29297} = (16, 18, 27, 1)$
 425 : $P_{29362} = (17, 20, 27, 1)$
 426 : $P_{29371} = (26, 20, 27, 1)$
 427 : $P_{29483} = (10, 24, 27, 1)$
 428 : $P_{29486} = (13, 24, 27, 1)$
 429 : $P_{29556} = (19, 26, 27, 1)$
 430 : $P_{29559} = (22, 26, 27, 1)$
 431 : $P_{29617} = (16, 28, 27, 1)$

432 : $P_{29620} = (19, 28, 27, 1)$
 433 : $P_{29718} = (21, 31, 27, 1)$
 434 : $P_{29732} = (3, 0, 28, 1)$
 435 : $P_{29835} = (10, 3, 28, 1)$
 436 : $P_{29862} = (5, 4, 28, 1)$
 437 : $P_{29915} = (26, 5, 28, 1)$
 438 : $P_{29983} = (30, 7, 28, 1)$
 439 : $P_{30046} = (29, 9, 28, 1)$
 440 : $P_{30133} = (20, 12, 28, 1)$
 441 : $P_{30246} = (5, 16, 28, 1)$
 442 : $P_{30263} = (22, 16, 28, 1)$
 443 : $P_{30332} = (27, 18, 28, 1)$
 444 : $P_{30344} = (7, 19, 28, 1)$
 445 : $P_{30360} = (23, 19, 28, 1)$
 446 : $P_{30412} = (11, 21, 28, 1)$
 447 : $P_{30455} = (22, 22, 28, 1)$
 448 : $P_{30465} = (0, 23, 28, 1)$
 449 : $P_{30485} = (20, 23, 28, 1)$
 450 : $P_{30508} = (11, 24, 28, 1)$
 451 : $P_{30513} = (16, 24, 28, 1)$
 452 : $P_{30641} = (16, 28, 28, 1)$
 453 : $P_{30793} = (8, 1, 29, 1)$
 454 : $P_{30811} = (26, 1, 29, 1)$
 455 : $P_{30889} = (8, 4, 29, 1)$
 456 : $P_{31117} = (12, 11, 29, 1)$
 457 : $P_{31125} = (20, 11, 29, 1)$
 458 : $P_{31139} = (2, 12, 29, 1)$
 459 : $P_{31243} = (10, 15, 29, 1)$
 460 : $P_{31255} = (22, 15, 29, 1)$

461 : $P_{31282} = (17, 16, 29, 1)$
 462 : $P_{31377} = (16, 19, 29, 1)$
 463 : $P_{31457} = (0, 22, 29, 1)$
 464 : $P_{31462} = (5, 22, 29, 1)$
 465 : $P_{31508} = (19, 23, 29, 1)$
 466 : $P_{31512} = (23, 23, 29, 1)$
 467 : $P_{31547} = (26, 24, 29, 1)$
 468 : $P_{31603} = (18, 26, 29, 1)$
 469 : $P_{31612} = (27, 26, 29, 1)$
 470 : $P_{31640} = (23, 27, 29, 1)$
 471 : $P_{31797} = (20, 0, 30, 1)$
 472 : $P_{31908} = (3, 4, 30, 1)$
 473 : $P_{31970} = (1, 6, 30, 1)$
 474 : $P_{32159} = (30, 11, 30, 1)$
 475 : $P_{32243} = (18, 14, 30, 1)$
 476 : $P_{32292} = (3, 16, 30, 1)$
 477 : $P_{32296} = (7, 16, 30, 1)$
 478 : $P_{32330} = (9, 17, 30, 1)$
 479 : $P_{32333} = (12, 17, 30, 1)$
 480 : $P_{32373} = (20, 18, 30, 1)$
 481 : $P_{32491} = (10, 22, 30, 1)$
 482 : $P_{32522} = (9, 23, 30, 1)$
 483 : $P_{32523} = (10, 23, 30, 1)$
 484 : $P_{32562} = (17, 24, 30, 1)$
 485 : $P_{32574} = (29, 24, 30, 1)$
 486 : $P_{32743} = (6, 30, 30, 1)$
 487 : $P_{32791} = (22, 31, 30, 1)$

Line Intersection Graph

		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
		a_1	a_2	a_3	a_4	a_5	a_6	b_1	b_2	b_3	b_4	b_5	b_6	c_{12}	c_{13}	c_{14}	c_{15}	c_{16}	c_{23}	c_{24}	c_{25}	c_{26}	c_{34}	c_{35}	c_{36}	c_{45}	c_{46}	c_{56}
0	a_1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
1	a_2	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0
2	a_3	0	0	0	0	0	0	1	1	0	1	1	1	0	1	0	0	0	1	0	0	0	1	1	1	0	0	0
3	a_4	0	0	0	0	0	0	1	1	1	0	1	1	0	0	1	0	0	0	1	0	0	1	0	0	1	1	0
4	a_5	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1
5	a_6	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	1
6	b_1	0	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
7	b_2	1	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0
8	b_3	1	1	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	1	1	0	0	0
9	b_4	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	1	0
10	b_5	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1
11	b_6	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	1
12	c_{12}	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
13	c_{13}	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1
14	c_{14}	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	1
15	c_{15}	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	1	1	0	1	0	1	0
16	c_{16}	1	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	1	1	1	0	1	1	0	1	0	0
17	c_{23}	0	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	1
18	c_{24}	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	1	0	0	0	0	0	1	1	0	0	1
19	c_{25}	0	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	0	0	0	0	1	0	1	0	1	0
20	c_{26}	0	1	0	0	0	1	0	1	0	0	0	1	0	1	1	1	0	0	0	0	0	1	1	0	1	0	0
21	c_{34}	0	0	1	1	0	0	0	0	1	1	0	0	1	0	0	1	1	0	0	1	1	0	0	0	0	0	1
22	c_{35}	0	0	1	0	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	1	0
23	c_{36}	0	0	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0	0	1	1	0	0	0	0	1	0	0
24	c_{45}	0	0	0	1	1	0	0	0	0	1	1	0	1	1	0	0	1	1	0	0	1	0	0	1	0	0	0
25	c_{46}	0	0	0	1	0	1	0	0	0	1	0	1	1	1	0	1	0	1	0	1	0	0	1	0	0	0	0
26	c_{56}	0	0	0	0	1	1	0	0	0	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}
in point	P_{20410}	P_{19531}	P_{19833}	P_{19990}	P_{12}	P_{20285}	P_{20434}	P_{20023}	P_{20357}	P_{19571}

Line 1 intersects

Line	ℓ_6	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{10319}	P_{10353}	P_{10520}	P_{10728}	P_{14}	P_{10989}	P_{11293}	P_{11015}	P_{10714}	P_{10410}

Line 2 intersects

Line	ℓ_6	ℓ_7	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{13}	ℓ_{17}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_{12462}	P_{13191}	P_{13147}	P_{13017}	P_{18}	P_{12920}	P_{13302}	P_{12383}	P_{13109}	P_{12844}

Line 3 intersects

Line	ℓ_6	ℓ_7	ℓ_8	ℓ_{10}	ℓ_{11}	ℓ_{14}	ℓ_{18}	ℓ_{21}	ℓ_{24}	ℓ_{25}
in point	P_{32916}	P_{32977}	P_{33321}	P_{32801}	P_{22}	P_{33711}	P_{33516}	P_{33776}	P_{32801}	P_{33696}

Line 4 intersects

Line	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{11}	ℓ_{15}	ℓ_{19}	ℓ_{22}	ℓ_{24}	ℓ_{26}
in point	P_{16876}	P_{17354}	P_{17279}	P_{16417}	P_{35}	P_{16564}	P_{16517}	P_{17099}	P_{16417}	P_{16848}

Line 5 intersects

Line	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{16}	ℓ_{20}	ℓ_{23}	ℓ_{25}	ℓ_{26}
in point	P_{5656}	P_{32489}	P_{14952}	P_{19330}	P_{23341}	P_{20128}	P_{10827}	P_{12415}	P_{33219}	P_{16468}

Line 6 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}
in point	P_{10319}	P_{12462}	P_{32916}	P_{16876}	P_{5656}	P_{26534}	P_{4642}	P_{11967}	P_{29014}	P_{19915}

Line 7 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_{12}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{20410}	P_{13191}	P_{32977}	P_{17354}	P_{32489}	P_{30430}	P_{15858}	P_{30950}	P_{22340}	P_{11060}

Line 8 intersects

Line	ℓ_0	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_{13}	ℓ_{17}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_{19531}	P_{10353}	P_{33321}	P_{17279}	P_{14952}	P_{25284}	P_{27810}	P_{3485}	P_{9455}	P_{12650}

Line 9 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_4	ℓ_5	ℓ_{14}	ℓ_{18}	ℓ_{21}	ℓ_{24}	ℓ_{25}
in point	P_{19833}	P_{10520}	P_{13147}	P_{16417}	P_{19330}	P_{9508}	P_{25527}	P_{8978}	P_{16417}	P_{33160}

Line 10 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_5	ℓ_{15}	ℓ_{19}	ℓ_{22}	ℓ_{24}	ℓ_{26}
in point	P_{19990}	P_{10728}	P_{13017}	P_{32801}	P_{23341}	P_{13410}	P_{11622}	P_{26394}	P_{32801}	P_{16612}

Line 11 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_{16}	ℓ_{20}	ℓ_{23}	ℓ_{25}	ℓ_{26}
in point	P_{12}	P_{14}	P_{18}	P_{22}	P_{35}	P_{13}	P_{15}	P_{19}	P_{23}	P_{34}

Line 12 intersects

Line	ℓ_0	ℓ_1	ℓ_6	ℓ_7	ℓ_{21}	ℓ_{22}	ℓ_{23}	ℓ_{24}	ℓ_{25}	ℓ_{26}
in point	P_{20285}	P_{10989}	P_{26534}	P_{30430}	P_{6594}	P_{21147}	P_{12321}	P_{12321}	P_{33080}	P_{16729}

Line 13 intersects

Line	ℓ_0	ℓ_2	ℓ_6	ℓ_8	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{24}	ℓ_{25}	ℓ_{26}
in point	P_{20434}	P_{12920}	P_{4642}	P_{25284}	P_{32749}	P_{22805}	P_{10273}	P_{10273}	P_{33558}	P_{17053}

Line 14 intersects

Line	ℓ_0	ℓ_3	ℓ_6	ℓ_9	ℓ_{17}	ℓ_{19}	ℓ_{20}	ℓ_{22}	ℓ_{23}	ℓ_{26}
in point	P_{20023}	P_{33711}	P_{11967}	P_{9508}	P_{8999}	P_{7931}	P_{10496}	P_{27597}	P_{13155}	P_{16670}

Line 15 intersects

Line	ℓ_0	ℓ_4	ℓ_6	ℓ_{10}	ℓ_{17}	ℓ_{18}	ℓ_{20}	ℓ_{21}	ℓ_{23}	ℓ_{25}
in point	P_{20357}	P_{16564}	P_{29014}	P_{13410}	P_{29979}	P_{21323}	P_{10547}	P_{18457}	P_{12719}	P_{32841}

Line 16 intersects

Line	ℓ_0	ℓ_5	ℓ_6	ℓ_{11}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{21}	ℓ_{22}	ℓ_{24}
in point	P_{19571}	P_{20128}	P_{19915}	P_{13}	P_{19489}	P_{20046}	P_{20255}	P_{19657}	P_{20304}	P_{19489}

Line 17 intersects

Line	ℓ_1	ℓ_2	ℓ_7	ℓ_8	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{24}	ℓ_{25}	ℓ_{26}
in point	P_{11293}	P_{13302}	P_{15858}	P_{27810}	P_{8999}	P_{29979}	P_{19489}	P_{19489}	P_{33446}	P_{17320}

Line 18 intersects

Line	ℓ_1	ℓ_3	ℓ_7	ℓ_9	ℓ_{13}	ℓ_{15}	ℓ_{16}	ℓ_{22}	ℓ_{23}	ℓ_{26}
in point	P_{11015}	P_{33516}	P_{30950}	P_{25527}	P_{32749}	P_{21323}	P_{20046}	P_{24242}	P_{12553}	P_{16501}

Line 19 intersects

Line	ℓ_1	ℓ_4	ℓ_7	ℓ_{10}	ℓ_{13}	ℓ_{14}	ℓ_{16}	ℓ_{21}	ℓ_{23}	ℓ_{25}
in point	P_{10714}	P_{16517}	P_{22340}	P_{11622}	P_{22805}	P_{7931}	P_{20255}	P_{16340}	P_{12979}	P_{33495}

Line 20 intersects

Line	ℓ_1	ℓ_5	ℓ_7	ℓ_{11}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{21}	ℓ_{22}	ℓ_{24}
in point	P_{10410}	P_{10827}	P_{11060}	P_{15}	P_{10273}	P_{10496}	P_{10547}	P_{11151}	P_{10684}	P_{10273}

Line 21 intersects

Line	ℓ_2	ℓ_3	ℓ_8	ℓ_9	ℓ_{12}	ℓ_{15}	ℓ_{16}	ℓ_{19}	ℓ_{20}	ℓ_{26}
in point	P_{12383}	P_{33776}	P_{3485}	P_{8978}	P_{6594}	P_{18457}	P_{19657}	P_{16340}	P_{11151}	P_{16956}

Line 22 intersects

Line	ℓ_2	ℓ_4	ℓ_8	ℓ_{10}	ℓ_{12}	ℓ_{14}	ℓ_{16}	ℓ_{18}	ℓ_{20}	ℓ_{25}
in point	P_{13109}	P_{17099}	P_{9455}	P_{26394}	P_{21147}	P_{27597}	P_{20304}	P_{24242}	P_{10684}	P_{32958}

Line 23 intersects

Line	ℓ_2	ℓ_5	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{14}	ℓ_{15}	ℓ_{18}	ℓ_{19}	ℓ_{24}
in point	P_{12844}	P_{12415}	P_{12650}	P_{19}	P_{12321}	P_{13155}	P_{12719}	P_{12553}	P_{12979}	P_{12321}

Line 24 intersects

Line	ℓ_3	ℓ_4	ℓ_9	ℓ_{10}	ℓ_{12}	ℓ_{13}	ℓ_{16}	ℓ_{17}	ℓ_{20}	ℓ_{23}
in point	P_{32801}	P_{16417}	P_{16417}	P_{32801}	P_{12321}	P_{10273}	P_{19489}	P_{19489}	P_{10273}	P_{12321}

Line 25 intersects

Line	ℓ_3	ℓ_5	ℓ_9	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{15}	ℓ_{17}	ℓ_{19}	ℓ_{22}
in point	P_{33696}	P_{33219}	P_{33160}	P_{23}	P_{33080}	P_{33558}	P_{32841}	P_{33446}	P_{33495}	P_{32958}

Line 26 intersects

Line	ℓ_4	ℓ_5	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{17}	ℓ_{18}	ℓ_{21}
in point	P_{16848}	P_{16468}	P_{16612}	P_{34}	P_{16729}	P_{17053}	P_{16670}	P_{17320}	P_{16501}	P_{16956}

The surface has 1249 points:

Too many to print.