Rank-76355 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

$$X_0^2X_3 + X_1^2X_3 + X_1X_2^2 + X_0X_3^2 + X_0X_1X_2 = 0$$

(0, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 1, 0, 1, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(16) is 303108373

General information

Number of lines	27
Number of points	369
Number of singular points	0
Number of Eckardt points	5
Number of double points	120
Number of single points	204
Number of points off lines	40
Number of Hesse planes	0
Number of axes	0
Type of points on lines	17^{27}
Type of lines on points	3^5, 2^{120}, 1^{204}, 0^{40}

Singular Points

The surface has 0 singular points:

The 27 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = a_1 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{256} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{256} = \mathbf{Pl}(0,0,1,0,0,0)_2$$

$$\ell_1 = a_2 = \begin{bmatrix} 1 & \delta^{14} & 0 & 0 \\ 0 & 0 & 1 & \delta^7 \end{bmatrix}_{3539} = \begin{bmatrix} 1 & 12 & 0 & 0 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{3539} = \mathbf{Pl}(0,0,14,7,14,1)_{62869}$$

$$\ell_2 = a_3 = \left[\begin{array}{cccc} 1 & \delta^{13} & 0 & 0 \\ 0 & 0 & 1 & \delta^{14} \end{array}\right]_{1906} = \left[\begin{array}{cccc} 1 & 6 & 0 & 0 \\ 0 & 0 & 1 & 12 \end{array}\right]_{1906} = \mathbf{Pl}(0,0,2,12,2,1)_{13537}$$

$$\ell_3 = a_4 = \left[\begin{array}{cccc} 1 & 0 & \delta^{4} & 1 \\ 0 & 1 & \delta^{11} & \delta^{7} \end{array}\right]_{6950} = \left[\begin{array}{cccc} 1 & 0 & 9 & 1 \\ 0 & 1 & 13 & 7 \end{array}\right]_{6950} = \mathbf{Pl}(14,0,9,13,8,1)_{38248}$$

$$\ell_4 = a_5 = \left[\begin{array}{cccc} 1 & \delta^{11} & 0 & 0 \\ 0 & 0 & 1 & \delta^{13} \end{array}\right]_{3811} = \left[\begin{array}{cccc} 1 & 13 & 0 & 0 \\ 0 & 0 & 1 & 6 \end{array}\right]_{3811} = \mathbf{Pl}(0,0,4,6,4,1)_{21759}$$

$$\ell_5 = a_6 = \left[\begin{array}{cccc} 1 & \delta^{7} & 0 & \delta^{11} \\ 0 & 0 & 1 & \delta^{11} \end{array}\right]_{58964} = \left[\begin{array}{cccc} 1 & 7 & 0 & 13 \\ 0 & 0 & 1 & 13 \end{array}\right]_{58964} = \mathbf{Pl}(0,9,9,13,9,1)_{42338}$$

$$\ell_6 = b_1 = \left[\begin{array}{cccc} 1 & 0 & \delta^{3} & 1 \\ 0 & 1 & \delta^{11} & \delta^{7} \end{array}\right]_{6677} = \left[\begin{array}{cccc} 1 & 0 & 8 & 1 \\ 0 & 1 & 13 & 7 \end{array}\right]_{6677} = \mathbf{Pl}(13,9,8,3,9,1)_{44013}$$

$$\ell_7 = b_2 = \left[\begin{array}{cccc} 1 & 0 & \delta^{7} & 0 \\ 0 & 1 & \delta^{10} & \delta^{5} \end{array}\right]_{2097} = \left[\begin{array}{cccc} 1 & 0 & 7 & 0 \\ 0 & 1 & 10 & 11 \end{array}\right]_{2097} = \mathbf{Pl}(10,11,11,0,6,1)_{29535}$$

$$\ell_8 = b_3 = \left[\begin{array}{cccc} 1 & 0 & \delta^{5} & 0 \\ 0 & 1 & 1 & 1 \end{array}\right]_{3020} = \left[\begin{array}{cccc} 1 & 0 & 11 & 0 \\ 0 & 1 & 1 & 1 \end{array}\right]_{3020} = \mathbf{Pl}(1,1,1,0,10,1)_{45696}$$

$$\ell_9 = b_4 = \left[\begin{array}{cccc} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{70160} = \left[\begin{array}{cccc} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{70160} = \mathbf{Pl}(0,1,0,0,0,0)_{1}$$

$$\ell_{10} = b_5 = \left[\begin{array}{cccc} 1 & 0 & \delta^{11} & 0 \\ 0 & 1 & \delta^{5} & \delta^{10} \end{array}\right]_{3720} = \left[\begin{array}{cccc} 1 & 0 & 13 & 0 \\ 0 & 1 & 11 & 10 \end{array}\right]_{3720} = \mathbf{Pl}(11,10,10,0,12,1)_{54001}$$

$$\ell_{11} = b_6 = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{array}\right]_{0} = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{array}\right]_{0} = \mathbf{Pl}(1,0,0,0,0,0)_{0}$$

$$\ell_{12} = c_{12} = \left[\begin{array}{cccc} 1 & 0 & \delta^{13} & 0 \\ 0 & 1 & \delta^{10} & \delta^{5} \end{array}\right]_{1824} = \left[\begin{array}{cccc} 1 & 0 & 6 & 0 \\ 0 & 1 & 10 & 11 \end{array}\right]_{1824} = \mathbf{Pl}(10,11,11,0,7,1)_{33615}$$

$$\ell_{13} = c_{13} = \left[\begin{array}{cccc} 1 & 0 & \delta^{10} & 0 \\ 0 & 1 & 1 & 1 \end{array}\right]_{2747} = \left[\begin{array}{cccc} 1 & 0 & 10 & 0 \\ 0 & 1 & 1 & 1 \end{array}\right]_{2747} = \mathbf{Pl}(1,1,1,0,11,1)_{49776}$$

$$\ell_{14} = c_{14} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{array}\right]_{4624} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{array}\right]_{4624} = \mathbf{Pl}(0,1,1,0,0,0)_{18}$$

$$\ell_{15} = c_{15} = \left[\begin{array}{cccc} 1 & 0 & \delta^{14} & 0 \\ 0 & 1 & \delta^{5} & \delta^{10} \end{array}\right]_{3447} = \left[\begin{array}{cccc} 1 & 0 & 12 & 0 \\ 0 & 1 & 11 & 10 \end{array}\right]_{3447} = \mathbf{Pl}(11,10,10,0,13,1)_{58081}$$

$$\ell_{16} = c_{16} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{array}\right]_{273} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 0 \end{array}\right]_{273} = \mathbf{Pl}(1,0,0,0,0,1)_{4626}$$

$$\ell_{17} = c_{23} = \left[\begin{array}{cccc} 1 & 0 & \delta^{9} & 1 \\ 0 & 1 & \delta^{13} & \delta^{11} \end{array}\right]_{5947} = \left[\begin{array}{cccc} 1 & 0 & 5 & 1 \\ 0 & 1 & 6 & 13 \end{array}\right]_{5947} = \mathbf{Pl}(6,4,5,15,4,1)_{23156}$$

$$\ell_{18} = c_{24} = \left[\begin{array}{cccc} 1 & \delta^{14} & 0 & \delta^{7} \\ 0 & 0 & 1 & \delta^{7} \end{array}\right]_{34115} = \left[\begin{array}{cccc} 1 & 12 & 0 & 7 \\ 0 & 0 & 1 & 7 \end{array}\right]_{34115} = \mathbf{Pl}(0,14,14,7,14,1)_{62898}$$

$$\ell_{19} = c_{25} = \left[\begin{array}{cccc} 1 & 0 & \delta^{12} & 1 \\ 0 & 1 & \delta^{14} & \delta^{13} \end{array}\right]_{5295} = \left[\begin{array}{cccc} 1 & 0 & 3 & 1 \\ 0 & 1 & 12 & 6 \end{array}\right]_{5295} = \mathbf{Pl}(12,2,3,8,2,1)_{14507}$$

$$\ell_{20} = c_{26} = \left[\begin{array}{cccc} 1 & 0 & \delta^{8} & 1 \\ 0 & 1 & \delta^{7} & \delta^{14} \end{array}\right]_{8389} = \left[\begin{array}{cccc} 1 & 0 & 14 & 1 \\ 0 & 1 & 7 & 12 \end{array}\right]_{8389} = \mathbf{Pl}(2,0,14,7,15,1)_{66951}$$

$$\ell_{21} = c_{34} = \left[\begin{array}{cccc} 1 & \delta^{13} & 0 & \delta^{14} \\ 0 & 0 & 1 & \delta^{14} \end{array}\right]_{54322} = \left[\begin{array}{cccc} 1 & 6 & 0 & 12 \\ 0 & 0 & 1 & 12 \end{array}\right]_{54322} = \mathbf{Pl}(0,2,2,12,2,1)_{13554}$$

$$\ell_{22} = c_{35} = \left[\begin{array}{cccc} 1 & 0 & \delta^{6} & 1 \\ 0 & 1 & \delta^{7} & \delta^{14} \end{array}\right]_{8662} = \left[\begin{array}{cccc} 1 & 0 & 15 & 1 \\ 0 & 1 & 7 & 12 \end{array}\right]_{8662} = \mathbf{Pl}(7,14,15,5,14,1)_{65907}$$

$$\ell_{23} = c_{36} = \left[\begin{array}{cccc} 1 & 0 & \delta & 1 \\ 0 & 1 & \delta^{14} & \delta^{13} \end{array}\right]_{5022} = \left[\begin{array}{cccc} 1 & 0 & 2 & 1 \\ 0 & 1 & 12 & 6 \end{array}\right]_{5022} = \mathbf{Pl}(4,0,2,12,3,1)_{17621}$$

$$\ell_{24} = c_{45} = \left[\begin{array}{cccc} 1 & \delta^{11} & 0 & \delta^{13} \\ 0 & 0 & 1 & \delta^{13} \end{array}\right]_{30019} = \left[\begin{array}{cccc} 1 & 13 & 0 & 6 \\ 0 & 0 & 1 & 6 \end{array}\right]_{30019} = \mathbf{Pl}(0,4,4,6,4,1)_{21778}$$

$$\ell_{25} = c_{46} = \left[\begin{array}{cccc} 1 & \delta^{7} & 0 & 0 \\ 0 & 0 & 1 & \delta^{11} \end{array}\right]_{2180} = \left[\begin{array}{cccc} 1 & 7 & 0 & 0 \\ 0 & 0 & 1 & 13 \end{array}\right]_{2180} = \mathbf{Pl}(0,0,9,13,9,1)_{42314}$$

$$\ell_{26} = c_{56} = \left[\begin{array}{cccc} 1 & 0 & \delta^{2} & 1 \\ 0 & 1 & \delta^{13} & \delta^{11} \end{array}\right]_{5674} = \left[\begin{array}{cccc} 1 & 0 & 4 & 1 \\ 0 & 1 & 6 & 13 \end{array}\right]_{5674} = \mathbf{Pl}(9,0,4,6,5,1)_{25848}$$

Rank of lines: (256, 3539, 1906, 6950, 3811, 58964, 6677, 2097, 3020, 70160, 3720, 0, 1824, 2747, 4624, 3447, 273, 5947, 34115, 5295, 8389, 54322, 8662, 5022, 30019, 2180, 5674)
Rank of points on Klein quadric: (2, 62869, 13537, 38248, 21759, 42338, 44013, 29535, 45696, 1, 54001, 0, 33615, 49776, 18, 58081, 4626, 23156, 62898, 14507, 66951, 13554, 65907, 17621, 21778, 42314, 25848)

Eckardt Points

The surface has 5 Eckardt points:
$0 : E_{14} = a_1 \cap b_4 \cap c_{14} = P_2 = \mathbf{P}(0,0,1,0) = \mathbf{P}(0,0,1,0)$,
$1 : E_{34} = a_3 \cap b_4 \cap c_{34} = P_{785} = \mathbf{P}(0,0,\delta,1) = \mathbf{P}(0,0,2,1)$,
$2 : E_{54} = a_5 \cap b_4 \cap c_{45} = P_{1297} = \mathbf{P}(0,0,\delta^2,1) = \mathbf{P}(0,0,4,1)$,
$3 : E_{64} = a_6 \cap b_4 \cap c_{46} = P_{2577} = \mathbf{P}(0,0,\delta^4,1) = \mathbf{P}(0,0,9,1)$,
$4 : E_{24} = a_2 \cap b_4 \cap c_{24} = P_{3857} = \mathbf{P}(0,0,\delta^8,1) = \mathbf{P}(0,0,14,1)$.

Double Points

The surface has 120 Double points:
The double points on the surface are:

$P_{33} = (14,0,1,0) = \ell_0 \cap \ell_7 = a_1 \cap b_2$
$P_{29} = (10,0,1,0) = \ell_0 \cap \ell_8 = a_1 \cap b_3$
$P_{28} = (9,0,1,0) = \ell_0 \cap \ell_{10} = a_1 \cap b_5$
$P_{0} = (1,0,0,0) = \ell_0 \cap \ell_{11} = a_1 \cap b_6$
$P_{23} = (4,0,1,0) = \ell_0 \cap \ell_{12} = a_1 \cap c_{12}$
$P_{30} = (11,0,1,0) = \ell_0 \cap \ell_{13} = a_1 \cap c_{13}$
$P_{21} = (2,0,1,0) = \ell_0 \cap \ell_{15} = a_1 \cap c_{15}$
$P_{20} = (1,0,1,0) = \ell_0 \cap \ell_{16} = a_1 \cap c_{16}$
$P_{4104} = (7,15,14,1) = \ell_1 \cap \ell_6 = a_2 \cap b_1$
$P_{3875} = (2,1,14,1) = \ell_1 \cap \ell_8 = a_2 \cap b_3$
$P_{4048} = (15,11,14,1) = \ell_1 \cap \ell_{10} = a_2 \cap b_5$
$P_{6} = (2,1,0,0) = \ell_1 \cap \ell_{11} = a_2 \cap b_6$
$P_{4030} = (13,10,14,1) = \ell_1 \cap \ell_{12} = a_2 \cap c_{12}$
$P_{3947} = (10,5,14,1) = \ell_1 \cap \ell_{17} = a_2 \cap c_{23}$
$P_{3965} = (12,6,14,1) = \ell_1 \cap \ell_{19} = a_2 \cap c_{25}$
$P_{3983} = (14,7,14,1) = \ell_1 \cap \ell_{20} = a_2 \cap c_{26}$
$P_{924} = (11,8,2,1) = \ell_2 \cap \ell_6 = a_3 \cap b_1$
$P_{948} = (3,10,2,1) = \ell_2 \cap \ell_7 = a_3 \cap b_2$
$P_{968} = (7,11,2,1) = \ell_2 \cap \ell_{10} = a_3 \cap b_5$
$P_{8} = (4,1,0,0) = \ell_2 \cap \ell_{11} = a_3 \cap b_6$
$P_{805} = (4,1,2,1) = \ell_2 \cap \ell_{13} = a_3 \cap c_{13}$
$P_{999} = (6,13,2,1) = \ell_2 \cap \ell_{17} = a_3 \cap c_{23}$
$P_{845} = (12,3,2,1) = \ell_2 \cap \ell_{22} = a_3 \cap c_{35}$
$P_{979} = (2,12,2,1) = \ell_2 \cap \ell_{23} = a_3 \cap c_{36}$
$P_{2801} = (0,14,9,1) = \ell_3 \cap \ell_6 = a_4 \cap b_1$
$P_{2742} = (5,10,9,1) = \ell_3 \cap \ell_7 = a_4 \cap b_2$
$P_{2599} = (6,1,9,1) = \ell_3 \cap \ell_8 = a_4 \cap b_3$
$P_{2755} = (2,11,9,1) = \ell_3 \cap \ell_{10} = a_4 \cap b_5$
$P_{11} = (7,1,0,0) = \ell_3 \cap \ell_{11} = a_4 \cap b_6$
$P_{2578} = (1,0,9,1) = \ell_3 \cap \ell_{14} = a_4 \cap c_{14}$
$P_{2824} = (7,15,9,1) = \ell_3 \cap \ell_{18} = a_4 \cap c_{24}$
$P_{2716} = (11,8,9,1) = \ell_3 \cap \ell_{21} = a_4 \cap c_{34}$
$P_{2702} = (13,7,9,1) = \ell_3 \cap \ell_{24} = a_4 \cap c_{45}$
$P_{2794} = (9,13,9,1) = \ell_3 \cap \ell_{25} = a_4 \cap c_{46}$
$P_{1422} = (13,7,4,1) = \ell_4 \cap \ell_6 = a_5 \cap b_1$
$P_{1469} = (12,10,4,1) = \ell_4 \cap \ell_7 = a_5 \cap b_2$
$P_{1322} = (9,1,4,1) = \ell_4 \cap \ell_8 = a_5 \cap b_3$
$P_{13} = (9,1,0,0) = \ell_4 \cap \ell_{11} = a_5 \cap b_6$
$P_{1478} = (5,11,4,1) = \ell_4 \cap \ell_{15} = a_5 \cap c_{15}$
$P_{1383} = (6,5,4,1) = \ell_4 \cap \ell_{19} = a_5 \cap c_{25}$
$P_{1547} = (10,15,4,1) = \ell_4 \cap \ell_{22} = a_5 \cap c_{35}$
$P_{1397} = (4,6,4,1) = \ell_4 \cap \ell_{26} = a_5 \cap c_{56}$
$P_{491} = (9,13,0,1) = \ell_5 \cap \ell_6 = a_6 \cap b_1$
$P_{697} = (8,10,1,1) = \ell_5 \cap \ell_7 = a_6 \cap b_2$

$P_{2095} = (14,1,7,1) = \ell_5 \cap \ell_8 = a_6 \cap b_3$
$P_{4295} = (6,11,15,1) = \ell_5 \cap \ell_{10} = a_6 \cap b_5$
$P_{132} = (1,7,1,0) = \ell_5 \cap \ell_{16} = a_6 \cap c_{16}$
$P_{4056} = (7,12,14,1) = \ell_5 \cap \ell_{20} = a_6 \cap c_{26}$
$P_{844} = (11,3,2,1) = \ell_5 \cap \ell_{23} = a_6 \cap c_{36}$
$P_{1438} = (13,8,4,1) = \ell_5 \cap \ell_{26} = a_6 \cap c_{56}$
$P_{3510} = (5,10,12,1) = \ell_6 \cap \ell_{12} = b_1 \cap c_{12}$
$P_{4135} = (6,1,15,1) = \ell_6 \cap \ell_{13} = b_1 \cap c_{13}$
$P_{2322} = (1,0,8,1) = \ell_6 \cap \ell_{14} = b_1 \cap c_{14}$
$P_{3267} = (2,11,11,1) = \ell_6 \cap \ell_{15} = b_1 \cap c_{15}$
$P_{244} = (1,14,1,0) = \ell_6 \cap \ell_{16} = b_1 \cap c_{16}$
$P_{3249} = (0,10,11,1) = \ell_7 \cap \ell_{12} = b_2 \cap c_{12}$
$P_{3007} = (14,10,10,1) = \ell_7 \cap \ell_{17} = b_2 \cap c_{23}$
$P_{1214} = (13,10,3,1) = \ell_7 \cap \ell_{18} = b_2 \cap c_{24}$
$P_{3776} = (15,10,13,1) = \ell_7 \cap \ell_{19} = b_2 \cap c_{25}$
$P_{4021} = (4,10,14,1) = \ell_7 \cap \ell_{20} = b_2 \cap c_{26}$
$P_{546} = (0,1,1,1) = \ell_8 \cap \ell_{13} = b_3 \cap c_{13}$
$P_{2349} = (12,1,8,1) = \ell_8 \cap \ell_{17} = b_3 \cap c_{23}$
$P_{1829} = (4,1,6,1) = \ell_8 \cap \ell_{21} = b_3 \cap c_{34}$
$P_{1070} = (13,1,3,1) = \ell_8 \cap \ell_{22} = b_3 \cap c_{35}$
$P_{808} = (7,1,2,1) = \ell_8 \cap \ell_{23} = b_3 \cap c_{36}$
$P_{3009} = (0,11,10,1) = \ell_{10} \cap \ell_{15} = b_5 \cap c_{15}$
$P_{3274} = (9,11,11,1) = \ell_{10} \cap \ell_{19} = b_5 \cap c_{25}$
$P_{1993} = (8,11,6,1) = \ell_{10} \cap \ell_{22} = b_5 \cap c_{35}$
$P_{710} = (5,11,1,1) = \ell_{10} \cap \ell_{24} = b_5 \cap c_{45}$
$P_{1476} = (3,11,4,1) = \ell_{10} \cap \ell_{26} = b_5 \cap c_{56}$
$P_1 = (0,1,0,0) = \ell_{11} \cap \ell_{16} = b_6 \cap c_{16}$
$P_{16} = (12,1,0,0) = \ell_{11} \cap \ell_{20} = b_6 \cap c_{26}$
$P_{10} = (6,1,0,0) = \ell_{11} \cap \ell_{23} = b_6 \cap c_{36}$
$P_{18} = (14,1,0,0) = \ell_{11} \cap \ell_{25} = b_6 \cap c_{46}$
$P_{17} = (13,1,0,0) = \ell_{11} \cap \ell_{26} = b_6 \cap c_{56}$
$P_{692} = (3,10,1,1) = \ell_{12} \cap \ell_{21} = c_{12} \cap c_{34}$
$P_{2997} = (4,10,10,1) = \ell_{12} \cap \ell_{22} = c_{12} \cap c_{35}$
$P_{960} = (15,10,2,1) = \ell_{12} \cap \ell_{23} = c_{12} \cap c_{36}$
$P_{2493} = (12,10,8,1) = \ell_{12} \cap \ell_{24} = c_{12} \cap c_{45}$
$P_{2745} = (8,10,9,1) = \ell_{12} \cap \ell_{25} = c_{12} \cap c_{46}$
$P_{1471} = (14,10,4,1) = \ell_{12} \cap \ell_{26} = c_{12} \cap c_{56}$
$P_{3363} = (2,1,12,1) = \ell_{13} \cap \ell_{18} = c_{13} \cap c_{24}$
$P_{1576} = (7,1,5,1) = \ell_{13} \cap \ell_{19} = c_{13} \cap c_{25}$
$P_{3886} = (13,1,14,1) = \ell_{13} \cap \ell_{20} = c_{13} \cap c_{26}$
$P_{3626} = (9,1,13,1) = \ell_{13} \cap \ell_{24} = c_{13} \cap c_{45}$
$P_{2607} = (14,1,9,1) = \ell_{13} \cap \ell_{25} = c_{13} \cap c_{46}$
$P_{1325} = (12,1,4,1) = \ell_{13} \cap \ell_{26} = c_{13} \cap c_{56}$
$P_{1554} = (1,0,5,1) = \ell_{14} \cap \ell_{17} = c_{14} \cap c_{23}$
$P_{1042} = (1,0,3,1) = \ell_{14} \cap \ell_{19} = c_{14} \cap c_{25}$
$P_{3858} = (1,0,14,1) = \ell_{14} \cap \ell_{20} = c_{14} \cap c_{26}$
$P_{4114} = (1,0,15,1) = \ell_{14} \cap \ell_{22} = c_{14} \cap c_{35}$
$P_{786} = (1,0,2,1) = \ell_{14} \cap \ell_{23} = c_{14} \cap c_{36}$
$P_{1298} = (1,0,4,1) = \ell_{14} \cap \ell_{26} = c_{14} \cap c_{56}$
$P_{2244} = (3,11,7,1) = \ell_{15} \cap \ell_{17} = c_{15} \cap c_{23}$
$P_{720} = (15,11,1,1) = \ell_{15} \cap \ell_{18} = c_{15} \cap c_{24}$
$P_{4041} = (8,11,14,1) = \ell_{15} \cap \ell_{20} = c_{15} \cap c_{26}$
$P_{1736} = (7,11,5,1) = \ell_{15} \cap \ell_{21} = c_{15} \cap c_{34}$
$P_{970} = (9,11,2,1) = \ell_{15} \cap \ell_{23} = c_{15} \cap c_{36}$
$P_{2759} = (6,11,9,1) = \ell_{15} \cap \ell_{25} = c_{15} \cap c_{46}$
$P_{164} = (1,9,1,0) = \ell_{16} \cap \ell_{17} = c_{16} \cap c_{23}$
$P_{212} = (1,12,1,0) = \ell_{16} \cap \ell_{18} = c_{16} \cap c_{24}$
$P_{84} = (1,4,1,0) = \ell_{16} \cap \ell_{19} = c_{16} \cap c_{25}$
$P_{116} = (1,6,1,0) = \ell_{16} \cap \ell_{21} = c_{16} \cap c_{34}$
$P_{52} = (1,2,1,0) = \ell_{16} \cap \ell_{22} = c_{16} \cap c_{35}$
$P_{228} = (1,13,1,0) = \ell_{16} \cap \ell_{24} = c_{16} \cap c_{45}$
$P_{374} = (4,6,0,1) = \ell_{17} \cap \ell_{24} = c_{23} \cap c_{45}$
$P_{2718} = (13,8,9,1) = \ell_{17} \cap \ell_{25} = c_{23} \cap c_{46}$
$P_{1441} = (0,9,4,1) = \ell_{17} \cap \ell_{26} = c_{23} \cap c_{56}$
$P_{400} = (14,7,0,1) = \ell_{18} \cap \ell_{22} = c_{24} \cap c_{35}$
$P_{893} = (12,6,2,1) = \ell_{18} \cap \ell_{23} = c_{24} \cap c_{36}$
$P_{1387} = (10,5,4,1) = \ell_{18} \cap \ell_{26} = c_{24} \cap c_{56}$
$P_{468} = (2,12,0,1) = \ell_{19} \cap \ell_{21} = c_{25} \cap c_{34}$
$P_{849} = (0,4,2,1) = \ell_{19} \cap \ell_{23} = c_{25} \cap c_{36}$
$P_{2636} = (11,3,9,1) = \ell_{19} \cap \ell_{25} = c_{25} \cap c_{46}$
$P_{3917} = (12,3,14,1) = \ell_{20} \cap \ell_{21} = c_{26} \cap c_{34}$
$P_{3889} = (0,2,14,1) = \ell_{20} \cap \ell_{22} = c_{26} \cap c_{35}$
$P_{4107} = (10,15,14,1) = \ell_{20} \cap \ell_{24} = c_{26} \cap c_{45}$
$P_{1511} = (6,13,4,1) = \ell_{21} \cap \ell_{26} = c_{34} \cap c_{56}$
$P_{2776} = (7,12,9,1) = \ell_{22} \cap \ell_{25} = c_{35} \cap c_{46}$
$P_{871} = (6,5,2,1) = \ell_{23} \cap \ell_{24} = c_{36} \cap c_{45}$

Single Points

The surface has 204 single points:
The single points on the surface are:

0 : $P_3 = (0,0,0,1)$ lies on line b_4
1 : $P_5 = (1,1,0,0)$ lies on line b_6
2 : $P_7 = (3,1,0,0)$ lies on line b_6
3 : $P_9 = (5,1,0,0)$ lies on line b_6
4 : $P_{12} = (8,1,0,0)$ lies on line b_6
5 : $P_{14} = (10,1,0,0)$ lies on line b_6
6 : $P_{15} = (11,1,0,0)$ lies on line b_6
7 : $P_{19} = (15,1,0,0)$ lies on line b_6
8 : $P_{22} = (3,0,1,0)$ lies on line a_1
9 : $P_{24} = (5,0,1,0)$ lies on line a_1
10 : $P_{25} = (6,0,1,0)$ lies on line a_1
11 : $P_{26} = (7,0,1,0)$ lies on line a_1
12 : $P_{27} = (8,0,1,0)$ lies on line a_1
13 : $P_{31} = (12,0,1,0)$ lies on line a_1
14 : $P_{32} = (13,0,1,0)$ lies on line a_1
15 : $P_{34} = (15,0,1,0)$ lies on line a_1

16 : $P_{36} = (1, 1, 1, 0)$ lies on line c_{16}
17 : $P_{68} = (1, 3, 1, 0)$ lies on line c_{16}
18 : $P_{100} = (1, 5, 1, 0)$ lies on line c_{16}
19 : $P_{148} = (1, 8, 1, 0)$ lies on line c_{16}
20 : $P_{180} = (1, 10, 1, 0)$ lies on line c_{16}
21 : $P_{196} = (1, 11, 1, 0)$ lies on line c_{16}
22 : $P_{260} = (1, 15, 1, 0)$ lies on line c_{16}
23 : $P_{275} = (1, 0, 0, 1)$ lies on line c_{14}
24 : $P_{300} = (10, 1, 0, 1)$ lies on line b_3
25 : $P_{301} = (11, 1, 0, 1)$ lies on line c_{13}
26 : $P_{440} = (6, 10, 0, 1)$ lies on line b_2
27 : $P_{441} = (7, 10, 0, 1)$ lies on line c_{12}
28 : $P_{462} = (12, 11, 0, 1)$ lies on line b_5
29 : $P_{463} = (13, 11, 0, 1)$ lies on line c_{15}
30 : $P_{530} = (0, 0, 1, 1)$ lies on line b_4
31 : $P_{531} = (1, 0, 1, 1)$ lies on line c_{14}
32 : $P_{585} = (8, 3, 1, 1)$ lies on line b_1
33 : $P_{624} = (15, 5, 1, 1)$ lies on line c_{35}
34 : $P_{660} = (3, 8, 1, 1)$ lies on line c_{25}
35 : $P_{774} = (5, 15, 1, 1)$ lies on line c_{23}
36 : $P_{825} = (8, 2, 2, 1)$ lies on line a_3
37 : $P_{830} = (13, 2, 2, 1)$ lies on line c_{36}
38 : $P_{858} = (9, 4, 2, 1)$ lies on line a_3
39 : $P_{878} = (13, 5, 2, 1)$ lies on line a_3
40 : $P_{882} = (1, 6, 2, 1)$ lies on line a_3
41 : $P_{902} = (5, 7, 2, 1)$ lies on line a_3
42 : $P_{907} = (10, 7, 2, 1)$ lies on line c_{36}
43 : $P_{916} = (3, 8, 2, 1)$ lies on line c_{36}
44 : $P_{934} = (5, 9, 2, 1)$ lies on line c_{36}
45 : $P_{944} = (15, 9, 2, 1)$ lies on line a_3
46 : $P_{997} = (4, 13, 2, 1)$ lies on line c_{36}
47 : $P_{1019} = (10, 14, 2, 1)$ lies on line a_3
48 : $P_{1023} = (14, 14, 2, 1)$ lies on line c_{36}
49 : $P_{1033} = (8, 15, 2, 1)$ lies on line c_{36}
50 : $P_{1039} = (14, 15, 2, 1)$ lies on line a_3
51 : $P_{1041} = (0, 0, 3, 1)$ lies on line b_4
52 : $P_{1072} = (15, 1, 3, 1)$ lies on line c_{13}
53 : $P_{1112} = (7, 4, 3, 1)$ lies on line c_{23}
54 : $P_{1115} = (10, 4, 3, 1)$ lies on line a_6
55 : $P_{1138} = (1, 6, 3, 1)$ lies on line c_{34}
56 : $P_{1147} = (10, 6, 3, 1)$ lies on line b_1
57 : $P_{1176} = (7, 8, 3, 1)$ lies on line c_{45}
58 : $P_{1212} = (11, 10, 3, 1)$ lies on line c_{12}
59 : $P_{1228} = (11, 11, 3, 1)$ lies on line c_{15}
60 : $P_{1231} = (14, 11, 3, 1)$ lies on line b_5
61 : $P_{1331} = (2, 2, 4, 1)$ lies on line c_{56}
62 : $P_{1340} = (11, 2, 4, 1)$ lies on line a_5
63 : $P_{1347} = (2, 3, 4, 1)$ lies on line a_5
64 : $P_{1360} = (15, 3, 4, 1)$ lies on line c_{56}
65 : $P_{1368} = (7, 4, 4, 1)$ lies on line c_{56}
66 : $P_{1376} = (15, 4, 4, 1)$ lies on line a_5
67 : $P_{1418} = (9, 7, 4, 1)$ lies on line c_{56}
68 : $P_{1432} = (7, 8, 4, 1)$ lies on line a_5
69 : $P_{1455} = (14, 9, 4, 1)$ lies on line a_5
70 : $P_{1497} = (8, 12, 4, 1)$ lies on line a_5
71 : $P_{1500} = (11, 12, 4, 1)$ lies on line c_{56}
72 : $P_{1506} = (1, 13, 4, 1)$ lies on line a_5
73 : $P_{1524} = (3, 14, 4, 1)$ lies on line a_5
74 : $P_{1529} = (8, 14, 4, 1)$ lies on line c_{56}
75 : $P_{1542} = (5, 15, 4, 1)$ lies on line c_{56}
76 : $P_{1553} = (0, 0, 5, 1)$ lies on line b_4
77 : $P_{1572} = (3, 1, 5, 1)$ lies on line b_3
78 : $P_{1708} = (11, 9, 5, 1)$ lies on line c_{24}
79 : $P_{1709} = (12, 9, 5, 1)$ lies on line b_1
80 : $P_{1715} = (2, 10, 5, 1)$ lies on line b_2
81 : $P_{1723} = (10, 10, 5, 1)$ lies on line c_{12}
82 : $P_{1739} = (10, 11, 5, 1)$ lies on line b_5
83 : $P_{1762} = (1, 13, 5, 1)$ lies on line c_{45}
84 : $P_{1772} = (11, 13, 5, 1)$ lies on line c_{35}
85 : $P_{1805} = (12, 15, 5, 1)$ lies on line a_6
86 : $P_{1809} = (0, 0, 6, 1)$ lies on line b_4
87 : $P_{1810} = (1, 0, 6, 1)$ lies on line c_{14}
88 : $P_{1828} = (3, 1, 6, 1)$ lies on line c_{13}
89 : $P_{1843} = (2, 2, 6, 1)$ lies on line c_{23}
90 : $P_{1856} = (15, 2, 6, 1)$ lies on line b_1
91 : $P_{1859} = (2, 3, 6, 1)$ lies on line c_{45}
92 : $P_{1881} = (8, 4, 6, 1)$ lies on line c_{24}
93 : $P_{1920} = (15, 6, 6, 1)$ lies on line a_6
94 : $P_{1975} = (6, 10, 6, 1)$ lies on line c_{12}
95 : $P_{1978} = (9, 10, 6, 1)$ lies on line b_2
96 : $P_{1986} = (1, 11, 6, 1)$ lies on line c_{15}
97 : $P_{2021} = (4, 13, 6, 1)$ lies on line c_{25}
98 : $P_{2065} = (0, 0, 7, 1)$ lies on line b_4
99 : $P_{2066} = (1, 0, 7, 1)$ lies on line c_{14}
100 : $P_{2089} = (8, 1, 7, 1)$ lies on line c_{13}
101 : $P_{2182} = (5, 7, 7, 1)$ lies on line c_{34}
102 : $P_{2202} = (9, 8, 7, 1)$ lies on line c_{24}
103 : $P_{2214} = (5, 9, 7, 1)$ lies on line c_{25}
104 : $P_{2218} = (9, 9, 7, 1)$ lies on line c_{35}
105 : $P_{2227} = (2, 10, 7, 1)$ lies on line c_{12}
106 : $P_{2232} = (7, 10, 7, 1)$ lies on line b_2
107 : $P_{2242} = (1, 11, 7, 1)$ lies on line b_5
108 : $P_{2271} = (14, 12, 7, 1)$ lies on line b_1
109 : $P_{2292} = (3, 14, 7, 1)$ lies on line c_{45}
110 : $P_{2321} = (0, 0, 8, 1)$ lies on line b_4
111 : $P_{2342} = (5, 1, 8, 1)$ lies on line c_{13}
112 : $P_{2375} = (6, 3, 8, 1)$ lies on line c_{24}
113 : $P_{2434} = (1, 7, 8, 1)$ lies on line a_6
114 : $P_{2443} = (10, 7, 8, 1)$ lies on line c_{25}
115 : $P_{2492} = (11, 10, 8, 1)$ lies on line b_2
116 : $P_{2501} = (4, 11, 8, 1)$ lies on line c_{15}
117 : $P_{2508} = (11, 11, 8, 1)$ lies on line b_5
118 : $P_{2551} = (6, 14, 8, 1)$ lies on line c_{35}
119 : $P_{2555} = (10, 14, 8, 1)$ lies on line c_{34}
120 : $P_{2614} = (5, 2, 9, 1)$ lies on line c_{46}
121 : $P_{2624} = (15, 2, 9, 1)$ lies on line a_4
122 : $P_{2633} = (8, 3, 9, 1)$ lies on line a_4
123 : $P_{2645} = (4, 4, 9, 1)$ lies on line a_4

124 : $P_{2651} = (10, 4, 9, 1)$ lies on line c_{46}
125 : $P_{2660} = (3, 5, 9, 1)$ lies on line a_4
126 : $P_{2661} = (4, 5, 9, 1)$ lies on line c_{46}
127 : $P_{2683} = (10, 6, 9, 1)$ lies on line a_4
128 : $P_{2688} = (15, 6, 9, 1)$ lies on line c_{46}
129 : $P_{2690} = (1, 7, 9, 1)$ lies on line c_{46}
130 : $P_{2724} = (3, 9, 9, 1)$ lies on line c_{46}
131 : $P_{2733} = (12, 9, 9, 1)$ lies on line a_4
132 : $P_{2783} = (14, 12, 9, 1)$ lies on line a_4
133 : $P_{2803} = (2, 14, 9, 1)$ lies on line c_{46}
134 : $P_{2829} = (12, 15, 9, 1)$ lies on line c_{46}
135 : $P_{2833} = (0, 0, 10, 1)$ lies on line b_4
136 : $P_{2834} = (1, 0, 10, 1)$ lies on line c_{14}
137 : $P_{2850} = (1, 1, 10, 1)$ lies on line b_3
138 : $P_{2859} = (10, 1, 10, 1)$ lies on line c_{13}
139 : $P_{2869} = (4, 2, 10, 1)$ lies on line c_{24}
140 : $P_{2873} = (8, 2, 10, 1)$ lies on line c_{34}
141 : $P_{2916} = (3, 5, 10, 1)$ lies on line b_1
142 : $P_{2980} = (3, 9, 10, 1)$ lies on line a_6
143 : $P_{2991} = (14, 9, 10, 1)$ lies on line c_{45}
144 : $P_{3081} = (8, 15, 10, 1)$ lies on line c_{25}
145 : $P_{3089} = (0, 0, 11, 1)$ lies on line b_4
146 : $P_{3090} = (1, 0, 11, 1)$ lies on line c_{14}
147 : $P_{3106} = (1, 1, 11, 1)$ lies on line c_{13}
148 : $P_{3116} = (11, 1, 11, 1)$ lies on line b_3
149 : $P_{3152} = (15, 3, 11, 1)$ lies on line c_{23}
150 : $P_{3162} = (9, 4, 11, 1)$ lies on line c_{34}
151 : $P_{3168} = (15, 4, 11, 1)$ lies on line c_{45}
152 : $P_{3222} = (5, 8, 11, 1)$ lies on line c_{35}
153 : $P_{3315} = (2, 14, 11, 1)$ lies on line a_6
154 : $P_{3318} = (5, 14, 11, 1)$ lies on line c_{24}
155 : $P_{3345} = (0, 0, 12, 1)$ lies on line b_4
156 : $P_{3346} = (1, 0, 12, 1)$ lies on line c_{14}
157 : $P_{3376} = (15, 1, 12, 1)$ lies on line b_3
158 : $P_{3382} = (5, 2, 12, 1)$ lies on line a_6
159 : $P_{3443} = (2, 6, 12, 1)$ lies on line c_{35}
160 : $P_{3506} = (1, 10, 12, 1)$ lies on line b_2
161 : $P_{3525} = (4, 11, 12, 1)$ lies on line b_5
162 : $P_{3533} = (12, 11, 12, 1)$ lies on line c_{15}
163 : $P_{3545} = (8, 12, 12, 1)$ lies on line c_{45}
164 : $P_{3577} = (8, 14, 12, 1)$ lies on line c_{23}
165 : $P_{3583} = (14, 14, 12, 1)$ lies on line c_{25}
166 : $P_{3599} = (14, 15, 12, 1)$ lies on line c_{34}
167 : $P_{3601} = (0, 0, 13, 1)$ lies on line b_4
168 : $P_{3602} = (1, 0, 13, 1)$ lies on line c_{14}
169 : $P_{3622} = (5, 1, 13, 1)$ lies on line b_3
170 : $P_{3668} = (3, 4, 13, 1)$ lies on line c_{35}
171 : $P_{3669} = (4, 4, 13, 1)$ lies on line b_1
172 : $P_{3685} = (4, 5, 13, 1)$ lies on line a_6
173 : $P_{3722} = (9, 7, 13, 1)$ lies on line c_{23}
174 : $P_{3760} = (15, 9, 13, 1)$ lies on line c_{34}
175 : $P_{3762} = (1, 10, 13, 1)$ lies on line c_{12}
176 : $P_{3790} = (13, 11, 13, 1)$ lies on line b_5
177 : $P_{3791} = (14, 11, 13, 1)$ lies on line c_{15}
178 : $P_{3812} = (3, 13, 13, 1)$ lies on line c_{24}
179 : $P_{3893} = (4, 2, 14, 1)$ lies on line a_2
180 : $P_{3911} = (6, 3, 14, 1)$ lies on line a_2
181 : $P_{3924} = (3, 4, 14, 1)$ lies on line c_{26}
182 : $P_{3929} = (8, 4, 14, 1)$ lies on line a_2
183 : $P_{3952} = (15, 5, 14, 1)$ lies on line c_{26}
184 : $P_{3955} = (2, 6, 14, 1)$ lies on line c_{26}
185 : $P_{3990} = (5, 8, 14, 1)$ lies on line c_{26}
186 : $P_{3994} = (9, 8, 14, 1)$ lies on line a_2
187 : $P_{4010} = (9, 9, 14, 1)$ lies on line c_{26}
188 : $P_{4012} = (11, 9, 14, 1)$ lies on line a_2
189 : $P_{4050} = (1, 12, 14, 1)$ lies on line a_2
190 : $P_{4068} = (3, 13, 14, 1)$ lies on line a_2
191 : $P_{4076} = (11, 13, 14, 1)$ lies on line c_{26}
192 : $P_{4086} = (5, 14, 14, 1)$ lies on line a_2
193 : $P_{4087} = (6, 14, 14, 1)$ lies on line c_{26}
194 : $P_{4113} = (0, 0, 15, 1)$ lies on line b_4
195 : $P_{4137} = (8, 1, 15, 1)$ lies on line b_3
196 : $P_{4156} = (11, 2, 15, 1)$ lies on line c_{45}
197 : $P_{4158} = (13, 2, 15, 1)$ lies on line c_{25}
198 : $P_{4206} = (13, 5, 15, 1)$ lies on line c_{34}
199 : $P_{4282} = (9, 10, 15, 1)$ lies on line c_{12}
200 : $P_{4283} = (10, 10, 15, 1)$ lies on line b_2
201 : $P_{4299} = (10, 11, 15, 1)$ lies on line c_{15}
202 : $P_{4306} = (1, 12, 15, 1)$ lies on line c_{24}
203 : $P_{4316} = (11, 12, 15, 1)$ lies on line c_{23}

The single points on the surface are:

Points on surface but on no line

The surface has 40 points not on any line:
The points on the surface but not on lines are:

0 : $P_{375} = (5, 6, 0, 1)$
1 : $P_{401} = (15, 7, 0, 1)$
2 : $P_{469} = (3, 12, 0, 1)$
3 : $P_{490} = (8, 13, 0, 1)$
4 : $P_{587} = (10, 3, 1, 1)$
5 : $P_{620} = (11, 5, 1, 1)$

6 : $P_{667} = (10, 8, 1, 1)$
7 : $P_{780} = (11, 15, 1, 1)$
8 : $P_{1121} = (0, 5, 3, 1)$
9 : $P_{1135} = (14, 5, 3, 1)$
10 : $P_{1236} = (3, 12, 3, 1)$
11 : $P_{1248} = (15, 12, 3, 1)$
12 : $P_{1652} = (3, 6, 5, 1)$
13 : $P_{1654} = (5, 6, 5, 1)$
14 : $P_{1681} = (0, 8, 5, 1)$
15 : $P_{1683} = (2, 8, 5, 1)$
16 : $P_{1866} = (9, 3, 6, 1)$
17 : $P_{1908} = (3, 6, 6, 1)$
18 : $P_{2017} = (0, 13, 6, 1)$
19 : $P_{2185} = (8, 7, 7, 1)$
20 : $P_{2195} = (2, 8, 7, 1)$
21 : $P_{2257} = (0, 12, 7, 1)$
22 : $P_{2534} = (5, 13, 8, 1)$
23 : $P_{2537} = (8, 13, 8, 1)$
24 : $P_{2561} = (0, 15, 8, 1)$
25 : $P_{2565} = (4, 15, 8, 1)$
26 : $P_{2924} = (11, 5, 10, 1)$
27 : $P_{3084} = (11, 15, 10, 1)$
28 : $P_{3147} = (10, 3, 11, 1)$
29 : $P_{3227} = (10, 8, 11, 1)$
30 : $P_{3441} = (0, 6, 12, 1)$
31 : $P_{3552} = (15, 12, 12, 1)$
32 : $P_{3589} = (4, 15, 12, 1)$
33 : $P_{3695} = (14, 5, 13, 1)$
34 : $P_{3713} = (0, 7, 13, 1)$
35 : $P_{3814} = (5, 13, 13, 1)$
36 : $P_{4161} = (0, 3, 15, 1)$
37 : $P_{4170} = (9, 3, 15, 1)$
38 : $P_{4233} = (8, 7, 15, 1)$
39 : $P_{4240} = (15, 7, 15, 1)$

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_{33}	P_{29}	P_2	P_{28}	P_0	P_{23}	P_{30}	P_2	P_{21}	P_{20}

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_{4104}	P_{3875}	P_{3857}	P_{4048}	P_6	P_{4030}	P_{3947}	P_{3857}	P_{3965}	P_{3983}

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_{924}	P_{948}	P_{785}	P_{968}	P_8	P_{805}	P_{999}	P_{785}	P_{845}	P_{979}

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_{2801}	P_{2742}	P_{2599}	P_{2755}	P_{11}	P_{2578}	P_{2824}	P_{2716}	P_{2702}	P_{2794}

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_{1422}	P_{1469}	P_{1322}	P_{1297}	P_{13}	P_{1478}	P_{1383}	P_{1547}	P_{1297}	P_{1397}

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_{491}	P_{697}	P_{2095}	P_{2577}	P_{4295}	P_{132}	P_{4056}	P_{844}	P_{2577}	P_{1438}

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_{4104}	P_{924}	P_{2801}	P_{1422}	P_{491}	P_{3510}	P_{4135}	P_{2322}	P_{3267}	P_{244}

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_{33}	P_{948}	P_{2742}	P_{1469}	P_{697}	P_{3249}	P_{3007}	P_{1214}	P_{3776}	P_{4021}

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_{29}	P_{3875}	P_{2599}	P_{1322}	P_{2095}	P_{546}	P_{2349}	P_{1829}	P_{1070}	P_{808}

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_2	P_{3857}	P_{785}	P_{1297}	P_{2577}	P_2	P_{3857}	P_{785}	P_{1297}	P_{2577}

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_{28}	P_{4048}	P_{968}	P_{2755}	P_{4295}	P_{3009}	P_{3274}	P_{1993}	P_{710}	P_{1476}

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_0	P_6	P_8	P_{11}	P_{13}	P_1	P_{16}	P_{10}	P_{18}	P_{17}

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_{23}	P_{4030}	P_{3510}	P_{3249}	P_{692}	P_{2997}	P_{960}	P_{2493}	P_{2745}	P_{1471}

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_{30}	P_{805}	P_{4135}	P_{546}	P_{3363}	P_{1576}	P_{3886}	P_{3626}	P_{2607}	P_{1325}

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_2	P_{2578}	P_{2322}	P_2	P_{1554}	P_{1042}	P_{3858}	P_{4114}	P_{786}	P_{1298}

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_{21}	P_{1478}	P_{3267}	P_{3009}	P_{2244}	P_{720}	P_{4041}	P_{1736}	P_{970}	P_{2759}

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_{20}	P_{132}	P_{244}	P_1	P_{164}	P_{212}	P_{84}	P_{116}	P_{52}	P_{228}

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_{3947}	P_{999}	P_{3007}	P_{2349}	P_{1554}	P_{2244}	P_{164}	P_{374}	P_{2718}	P_{1441}

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_{3857}	P_{2824}	P_{1214}	P_{3857}	P_{3363}	P_{720}	P_{212}	P_{400}	P_{893}	P_{1387}

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_{3965}	P_{1383}	P_{3776}	P_{3274}	P_{1576}	P_{1042}	P_{84}	P_{468}	P_{849}	P_{2636}

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_{3983}	P_{4056}	P_{4021}	P_{16}	P_{3886}	P_{3858}	P_{4041}	P_{3917}	P_{3889}	P_{4107}

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_{785}	P_{2716}	P_{1829}	P_{785}	P_{692}	P_{1736}	P_{116}	P_{468}	P_{3917}	P_{1511}

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_{845}	P_{1547}	P_{1070}	P_{1993}	P_{2997}	P_{4114}	P_{52}	P_{400}	P_{3889}	P_{2776}

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_{979}	P_{844}	P_{808}	P_{10}	P_{960}	P_{786}	P_{970}	P_{893}	P_{849}	P_{871}

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_{2702}	P_{1297}	P_{1297}	P_{710}	P_{2493}	P_{3626}	P_{228}	P_{374}	P_{4107}	P_{871}

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_{2794}	P_{2577}	P_{2577}	P_{18}	P_{2745}	P_{2607}	P_{2759}	P_{2718}	P_{2636}	P_{2776}

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_{1397}	P_{1438}	P_{1476}	P_{17}	P_{1471}	P_{1325}	P_{1298}	P_{1441}	P_{1387}	P_{1511}

The surface has 369 points:
The points on the surface are:

$0: P_0 = (1,0,0,0)$
$1: P_1 = (0,1,0,0)$
$2: P_2 = (0,0,1,0)$
$3: P_3 = (0,0,0,1)$
$4: P_5 = (1,1,0,0)$
$5: P_6 = (2,1,0,0)$
$6: P_7 = (3,1,0,0)$
$7: P_8 = (4,1,0,0)$
$8: P_9 = (5,1,0,0)$
$9: P_{10} = (6,1,0,0)$
$10: P_{11} = (7,1,0,0)$
$11: P_{12} = (8,1,0,0)$
$12: P_{13} = (9,1,0,0)$
$13: P_{14} = (10,1,0,0)$
$14: P_{15} = (11,1,0,0)$
$15: P_{16} = (12,1,0,0)$
$16: P_{17} = (13,1,0,0)$
$17: P_{18} = (14,1,0,0)$
$18: P_{19} = (15,1,0,0)$
$19: P_{20} = (1,0,1,0)$
$20: P_{21} = (2,0,1,0)$
$21: P_{22} = (3,0,1,0)$
$22: P_{23} = (4,0,1,0)$
$23: P_{24} = (5,0,1,0)$
$24: P_{25} = (6,0,1,0)$
$25: P_{26} = (7,0,1,0)$
$26: P_{27} = (8,0,1,0)$
$27: P_{28} = (9,0,1,0)$
$28: P_{29} = (10,0,1,0)$
$29: P_{30} = (11,0,1,0)$
$30: P_{31} = (12,0,1,0)$
$31: P_{32} = (13,0,1,0)$
$32: P_{33} = (14,0,1,0)$
$33: P_{34} = (15,0,1,0)$
$34: P_{36} = (1,1,1,0)$
$35: P_{52} = (1,2,1,0)$
$36: P_{68} = (1,3,1,0)$
$37: P_{84} = (1,4,1,0)$
$38: P_{100} = (1,5,1,0)$
$39: P_{116} = (1,6,1,0)$
$40: P_{132} = (1,7,1,0)$
$41: P_{148} = (1,8,1,0)$
$42: P_{164} = (1,9,1,0)$
$43: P_{180} = (1,10,1,0)$
$44: P_{196} = (1,11,1,0)$
$45: P_{212} = (1,12,1,0)$
$46: P_{228} = (1,13,1,0)$
$47: P_{244} = (1,14,1,0)$
$48: P_{260} = (1,15,1,0)$
$49: P_{275} = (1,0,0,1)$
$50: P_{300} = (10,1,0,1)$
$51: P_{301} = (11,1,0,1)$
$52: P_{374} = (4,6,0,1)$
$53: P_{375} = (5,6,0,1)$
$54: P_{400} = (14,7,0,1)$
$55: P_{401} = (15,7,0,1)$
$56: P_{440} = (6,10,0,1)$
$57: P_{441} = (7,10,0,1)$
$58: P_{462} = (12,11,0,1)$
$59: P_{463} = (13,11,0,1)$
$60: P_{468} = (2,12,0,1)$
$61: P_{469} = (3,12,0,1)$
$62: P_{490} = (8,13,0,1)$
$63: P_{491} = (9,13,0,1)$
$64: P_{530} = (0,0,1,1)$
$65: P_{531} = (1,0,1,1)$
$66: P_{546} = (0,1,1,1)$
$67: P_{585} = (8,3,1,1)$
$68: P_{587} = (10,3,1,1)$
$69: P_{620} = (11,5,1,1)$
$70: P_{624} = (15,5,1,1)$
$71: P_{660} = (3,8,1,1)$
$72: P_{667} = (10,8,1,1)$
$73: P_{692} = (3,10,1,1)$
$74: P_{697} = (8,10,1,1)$
$75: P_{710} = (5,11,1,1)$
$76: P_{720} = (15,11,1,1)$
$77: P_{774} = (5,15,1,1)$
$78: P_{780} = (11,15,1,1)$
$79: P_{785} = (0,0,2,1)$
$80: P_{786} = (1,0,2,1)$
$81: P_{805} = (4,1,2,1)$
$82: P_{808} = (7,1,2,1)$
$83: P_{825} = (8,2,2,1)$
$84: P_{830} = (13,2,2,1)$
$85: P_{844} = (11,3,2,1)$
$86: P_{845} = (12,3,2,1)$
$87: P_{849} = (0,4,2,1)$
$88: P_{858} = (9,4,2,1)$
$89: P_{871} = (6,5,2,1)$
$90: P_{878} = (13,5,2,1)$
$91: P_{882} = (1,6,2,1)$
$92: P_{893} = (12,6,2,1)$
$93: P_{902} = (5,7,2,1)$
$94: P_{907} = (10,7,2,1)$
$95: P_{916} = (3,8,2,1)$
$96: P_{924} = (11,8,2,1)$
$97: P_{934} = (5,9,2,1)$
$98: P_{944} = (15,9,2,1)$
$99: P_{948} = (3,10,2,1)$
$100: P_{960} = (15,10,2,1)$
$101: P_{968} = (7,11,2,1)$
$102: P_{970} = (9,11,2,1)$
$103: P_{979} = (2,12,2,1)$
$104: P_{997} = (4,13,2,1)$
$105: P_{999} = (6,13,2,1)$
$106: P_{1019} = (10,14,2,1)$
$107: P_{1023} = (14,14,2,1)$
$108: P_{1033} = (8,15,2,1)$
$109: P_{1039} = (14,15,2,1)$
$110: P_{1041} = (0,0,3,1)$
$111: P_{1042} = (1,0,3,1)$
$112: P_{1070} = (13,1,3,1)$
$113: P_{1072} = (15,1,3,1)$
$114: P_{1112} = (7,4,3,1)$
$115: P_{1115} = (10,4,3,1)$
$116: P_{1121} = (0,5,3,1)$
$117: P_{1135} = (14,5,3,1)$
$118: P_{1138} = (1,6,3,1)$
$119: P_{1147} = (10,6,3,1)$
$120: P_{1176} = (7,8,3,1)$
$121: P_{1212} = (11,10,3,1)$
$122: P_{1214} = (13,10,3,1)$
$123: P_{1228} = (11,11,3,1)$
$124: P_{1231} = (14,11,3,1)$
$125: P_{1236} = (3,12,3,1)$
$126: P_{1248} = (15,12,3,1)$
$127: P_{1297} = (0,0,4,1)$
$128: P_{1298} = (1,0,4,1)$
$129: P_{1322} = (9,1,4,1)$
$130: P_{1325} = (12,1,4,1)$
$131: P_{1331} = (2,2,4,1)$
$132: P_{1340} = (11,2,4,1)$
$133: P_{1347} = (2,3,4,1)$
$134: P_{1360} = (15,3,4,1)$
$135: P_{1368} = (7,4,4,1)$
$136: P_{1376} = (15,4,4,1)$
$137: P_{1383} = (6,5,4,1)$
$138: P_{1387} = (10,5,4,1)$
$139: P_{1397} = (4,6,4,1)$
$140: P_{1418} = (9,7,4,1)$
$141: P_{1422} = (13,7,4,1)$
$142: P_{1432} = (7,8,4,1)$
$143: P_{1438} = (13,8,4,1)$
$144: P_{1441} = (0,9,4,1)$
$145: P_{1455} = (14,9,4,1)$
$146: P_{1469} = (12,10,4,1)$
$147: P_{1471} = (14,10,4,1)$
$148: P_{1476} = (3,11,4,1)$
$149: P_{1478} = (5,11,4,1)$
$150: P_{1497} = (8,12,4,1)$
$151: P_{1500} = (11,12,4,1)$
$152: P_{1506} = (1,13,4,1)$
$153: P_{1511} = (6,13,4,1)$
$154: P_{1524} = (3,14,4,1)$
$155: P_{1529} = (8,14,4,1)$
$156: P_{1542} = (5,15,4,1)$
$157: P_{1547} = (10,15,4,1)$
$158: P_{1553} = (0,0,5,1)$
$159: P_{1554} = (1,0,5,1)$
$160: P_{1572} = (3,1,5,1)$
$161: P_{1576} = (7,1,5,1)$

$162: P_{1652} = (3, 6, 5, 1)$
$163: P_{1654} = (5, 6, 5, 1)$
$164: P_{1681} = (0, 8, 5, 1)$
$165: P_{1683} = (2, 8, 5, 1)$
$166: P_{1708} = (11, 9, 5, 1)$
$167: P_{1709} = (12, 9, 5, 1)$
$168: P_{1715} = (2, 10, 5, 1)$
$169: P_{1723} = (10, 10, 5, 1)$
$170: P_{1736} = (7, 11, 5, 1)$
$171: P_{1739} = (10, 11, 5, 1)$
$172: P_{1762} = (1, 13, 5, 1)$
$173: P_{1772} = (11, 13, 5, 1)$
$174: P_{1805} = (12, 15, 5, 1)$
$175: P_{1809} = (0, 0, 6, 1)$
$176: P_{1810} = (1, 0, 6, 1)$
$177: P_{1828} = (3, 1, 6, 1)$
$178: P_{1829} = (4, 1, 6, 1)$
$179: P_{1843} = (2, 2, 6, 1)$
$180: P_{1856} = (15, 2, 6, 1)$
$181: P_{1859} = (2, 3, 6, 1)$
$182: P_{1866} = (9, 3, 6, 1)$
$183: P_{1881} = (8, 4, 6, 1)$
$184: P_{1908} = (3, 6, 6, 1)$
$185: P_{1920} = (15, 6, 6, 1)$
$186: P_{1975} = (6, 10, 6, 1)$
$187: P_{1978} = (9, 10, 6, 1)$
$188: P_{1986} = (1, 11, 6, 1)$
$189: P_{1993} = (8, 11, 6, 1)$
$190: P_{2017} = (0, 13, 6, 1)$
$191: P_{2021} = (4, 13, 6, 1)$
$192: P_{2065} = (0, 0, 7, 1)$
$193: P_{2066} = (1, 0, 7, 1)$
$194: P_{2089} = (8, 1, 7, 1)$
$195: P_{2095} = (14, 1, 7, 1)$
$196: P_{2182} = (5, 7, 7, 1)$
$197: P_{2185} = (8, 7, 7, 1)$
$198: P_{2195} = (2, 8, 7, 1)$
$199: P_{2202} = (9, 8, 7, 1)$
$200: P_{2214} = (5, 9, 7, 1)$
$201: P_{2218} = (9, 9, 7, 1)$
$202: P_{2227} = (2, 10, 7, 1)$
$203: P_{2232} = (7, 10, 7, 1)$
$204: P_{2242} = (1, 11, 7, 1)$
$205: P_{2244} = (3, 11, 7, 1)$
$206: P_{2257} = (0, 12, 7, 1)$
$207: P_{2271} = (14, 12, 7, 1)$
$208: P_{2292} = (3, 14, 7, 1)$
$209: P_{2321} = (0, 0, 8, 1)$
$210: P_{2322} = (1, 0, 8, 1)$
$211: P_{2342} = (5, 1, 8, 1)$
$212: P_{2349} = (12, 1, 8, 1)$
$213: P_{2375} = (6, 3, 8, 1)$
$214: P_{2434} = (1, 7, 8, 1)$
$215: P_{2443} = (10, 7, 8, 1)$
$216: P_{2492} = (11, 10, 8, 1)$
$217: P_{2493} = (12, 10, 8, 1)$
$218: P_{2501} = (4, 11, 8, 1)$
$219: P_{2508} = (11, 11, 8, 1)$
$220: P_{2534} = (5, 13, 8, 1)$
$221: P_{2537} = (8, 13, 8, 1)$
$222: P_{2551} = (6, 14, 8, 1)$
$223: P_{2555} = (10, 14, 8, 1)$
$224: P_{2561} = (0, 15, 8, 1)$
$225: P_{2565} = (4, 15, 8, 1)$
$226: P_{2577} = (0, 0, 9, 1)$
$227: P_{2578} = (1, 0, 9, 1)$
$228: P_{2599} = (6, 1, 9, 1)$
$229: P_{2607} = (14, 1, 9, 1)$
$230: P_{2614} = (5, 2, 9, 1)$
$231: P_{2624} = (15, 2, 9, 1)$
$232: P_{2633} = (8, 3, 9, 1)$
$233: P_{2636} = (11, 3, 9, 1)$
$234: P_{2645} = (4, 4, 9, 1)$
$235: P_{2651} = (10, 4, 9, 1)$
$236: P_{2660} = (3, 5, 9, 1)$
$237: P_{2661} = (4, 5, 9, 1)$
$238: P_{2683} = (10, 6, 9, 1)$
$239: P_{2688} = (15, 6, 9, 1)$
$240: P_{2690} = (1, 7, 9, 1)$
$241: P_{2702} = (13, 7, 9, 1)$
$242: P_{2716} = (11, 8, 9, 1)$
$243: P_{2718} = (13, 8, 9, 1)$
$244: P_{2724} = (3, 9, 9, 1)$
$245: P_{2733} = (12, 9, 9, 1)$
$246: P_{2742} = (5, 10, 9, 1)$
$247: P_{2745} = (8, 10, 9, 1)$
$248: P_{2755} = (2, 11, 9, 1)$
$249: P_{2759} = (6, 11, 9, 1)$
$250: P_{2776} = (7, 12, 9, 1)$
$251: P_{2783} = (14, 12, 9, 1)$
$252: P_{2794} = (9, 13, 9, 1)$
$253: P_{2801} = (0, 14, 9, 1)$
$254: P_{2803} = (2, 14, 9, 1)$
$255: P_{2824} = (7, 15, 9, 1)$
$256: P_{2829} = (12, 15, 9, 1)$
$257: P_{2833} = (0, 0, 10, 1)$
$258: P_{2834} = (1, 0, 10, 1)$
$259: P_{2850} = (1, 1, 10, 1)$
$260: P_{2859} = (10, 1, 10, 1)$
$261: P_{2869} = (4, 2, 10, 1)$
$262: P_{2873} = (8, 2, 10, 1)$
$263: P_{2916} = (3, 5, 10, 1)$
$264: P_{2924} = (11, 5, 10, 1)$
$265: P_{2980} = (3, 9, 10, 1)$
$266: P_{2991} = (14, 9, 10, 1)$
$267: P_{2997} = (4, 10, 10, 1)$
$268: P_{3007} = (14, 10, 10, 1)$
$269: P_{3009} = (0, 11, 10, 1)$
$270: P_{3081} = (8, 15, 10, 1)$
$271: P_{3084} = (11, 15, 10, 1)$
$272: P_{3089} = (0, 0, 11, 1)$
$273: P_{3090} = (1, 0, 11, 1)$
$274: P_{3106} = (1, 1, 11, 1)$
$275: P_{3116} = (11, 1, 11, 1)$
$276: P_{3147} = (10, 3, 11, 1)$
$277: P_{3152} = (15, 3, 11, 1)$
$278: P_{3162} = (9, 4, 11, 1)$
$279: P_{3168} = (15, 4, 11, 1)$
$280: P_{3222} = (5, 8, 11, 1)$
$281: P_{3227} = (10, 8, 11, 1)$
$282: P_{3249} = (0, 10, 11, 1)$
$283: P_{3267} = (2, 11, 11, 1)$
$284: P_{3274} = (9, 11, 11, 1)$
$285: P_{3315} = (2, 14, 11, 1)$
$286: P_{3318} = (5, 14, 11, 1)$
$287: P_{3345} = (0, 0, 12, 1)$
$288: P_{3346} = (1, 0, 12, 1)$
$289: P_{3363} = (2, 1, 12, 1)$
$290: P_{3376} = (15, 1, 12, 1)$
$291: P_{3382} = (5, 2, 12, 1)$
$292: P_{3441} = (0, 6, 12, 1)$
$293: P_{3443} = (2, 6, 12, 1)$
$294: P_{3506} = (1, 10, 12, 1)$
$295: P_{3510} = (5, 10, 12, 1)$
$296: P_{3525} = (4, 11, 12, 1)$
$297: P_{3533} = (12, 11, 12, 1)$
$298: P_{3545} = (8, 12, 12, 1)$
$299: P_{3552} = (15, 12, 12, 1)$
$300: P_{3577} = (8, 14, 12, 1)$
$301: P_{3583} = (14, 14, 12, 1)$
$302: P_{3589} = (4, 15, 12, 1)$
$303: P_{3599} = (14, 15, 12, 1)$
$304: P_{3601} = (0, 0, 13, 1)$
$305: P_{3602} = (1, 0, 13, 1)$
$306: P_{3622} = (5, 1, 13, 1)$
$307: P_{3626} = (9, 1, 13, 1)$
$308: P_{3668} = (3, 4, 13, 1)$
$309: P_{3669} = (4, 4, 13, 1)$
$310: P_{3685} = (4, 5, 13, 1)$
$311: P_{3695} = (14, 5, 13, 1)$
$312: P_{3713} = (0, 7, 13, 1)$
$313: P_{3722} = (9, 7, 13, 1)$
$314: P_{3760} = (15, 9, 13, 1)$
$315: P_{3762} = (1, 10, 13, 1)$
$316: P_{3776} = (15, 10, 13, 1)$
$317: P_{3790} = (13, 11, 13, 1)$
$318: P_{3791} = (14, 11, 13, 1)$
$319: P_{3812} = (3, 13, 13, 1)$
$320: P_{3814} = (5, 13, 13, 1)$
$321: P_{3857} = (0, 0, 14, 1)$
$322: P_{3858} = (1, 0, 14, 1)$
$323: P_{3875} = (2, 1, 14, 1)$

$324: P_{3886} = (13, 1, 14, 1)$
$325: P_{3889} = (0, 2, 14, 1)$
$326: P_{3893} = (4, 2, 14, 1)$
$327: P_{3911} = (6, 3, 14, 1)$
$328: P_{3917} = (12, 3, 14, 1)$
$329: P_{3924} = (3, 4, 14, 1)$
$330: P_{3929} = (8, 4, 14, 1)$
$331: P_{3947} = (10, 5, 14, 1)$
$332: P_{3952} = (15, 5, 14, 1)$
$333: P_{3955} = (2, 6, 14, 1)$
$334: P_{3965} = (12, 6, 14, 1)$
$335: P_{3983} = (14, 7, 14, 1)$
$336: P_{3990} = (5, 8, 14, 1)$
$337: P_{3994} = (9, 8, 14, 1)$
$338: P_{4010} = (9, 9, 14, 1)$
$339: P_{4012} = (11, 9, 14, 1)$
$340: P_{4021} = (4, 10, 14, 1)$
$341: P_{4030} = (13, 10, 14, 1)$
$342: P_{4041} = (8, 11, 14, 1)$
$343: P_{4048} = (15, 11, 14, 1)$
$344: P_{4050} = (1, 12, 14, 1)$
$345: P_{4056} = (7, 12, 14, 1)$
$346: P_{4068} = (3, 13, 14, 1)$
$347: P_{4076} = (11, 13, 14, 1)$
$348: P_{4086} = (5, 14, 14, 1)$
$349: P_{4087} = (6, 14, 14, 1)$
$350: P_{4104} = (7, 15, 14, 1)$
$351: P_{4107} = (10, 15, 14, 1)$
$352: P_{4113} = (0, 0, 15, 1)$
$353: P_{4114} = (1, 0, 15, 1)$
$354: P_{4135} = (6, 1, 15, 1)$
$355: P_{4137} = (8, 1, 15, 1)$
$356: P_{4156} = (11, 2, 15, 1)$
$357: P_{4158} = (13, 2, 15, 1)$
$358: P_{4161} = (0, 3, 15, 1)$
$359: P_{4170} = (9, 3, 15, 1)$
$360: P_{4206} = (13, 5, 15, 1)$
$361: P_{4233} = (8, 7, 15, 1)$
$362: P_{4240} = (15, 7, 15, 1)$
$363: P_{4282} = (9, 10, 15, 1)$
$364: P_{4283} = (10, 10, 15, 1)$
$365: P_{4295} = (6, 11, 15, 1)$
$366: P_{4299} = (10, 11, 15, 1)$
$367: P_{4306} = (1, 12, 15, 1)$
$368: P_{4316} = (11, 12, 15, 1)$