

Rank-10566 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(16) is 303108376

General information

Number of lines	27
Number of points	369
Number of singular points	0
Number of Eckardt points	45
Number of double points	0
Number of single points	324
Number of points off lines	0
Number of Hesse planes	40
Number of axes	240
Type of points on lines	17^{27}
Type of lines on points	$3^{45}, 1^{324}$

Singular Points

The surface has 0 singular points:

The 27 Lines

The lines and their Pluecker coordinates are:

$$\begin{aligned}\ell_0 = a_1 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \end{bmatrix}_1 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \end{bmatrix}_1 = \mathbf{Pl}(1, 0, 1, 0, 0, 0)_3 \\ \ell_1 = a_2 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69904} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69904} = \mathbf{Pl}(0, 0, 0, 1, 0, 0)_{33}\end{aligned}$$

$$\begin{aligned}
\ell_2 = a_3 &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{530} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{530} = \mathbf{Pl}(0, 0, 1, 1, 1, 1)_{9426} \\
\ell_3 = a_4 &= \begin{bmatrix} 1 & \delta^5 & 0 & 0 \\ 0 & 0 & 1 & \delta^{10} \end{bmatrix}_{3269} = \begin{bmatrix} 1 & 11 & 0 & 0 \\ 0 & 0 & 1 & 10 \end{bmatrix}_{3269} = \mathbf{Pl}(0, 0, 11, 10, 11, 1)_{50536} \\
\ell_4 = a_5 &= \begin{bmatrix} 1 & \delta^{10} & 0 & 0 \\ 0 & 0 & 1 & \delta^5 \end{bmatrix}_{2997} = \begin{bmatrix} 1 & 10 & 0 & 0 \\ 0 & 0 & 1 & 11 \end{bmatrix}_{2997} = \mathbf{Pl}(0, 0, 10, 11, 10, 1)_{46425} \\
\ell_5 = a_6 &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4624} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4624} = \mathbf{Pl}(0, 1, 1, 0, 0, 0)_{18} \\
\ell_6 = b_1 &= \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70160} = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70160} = \mathbf{Pl}(0, 1, 0, 0, 0, 0)_1 \\
\ell_7 = b_2 &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{4369} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{4369} = \mathbf{Pl}(1, 1, 1, 1, 0, 0)_{64} \\
\ell_8 = b_3 &= \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{4657} = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{4657} = \mathbf{Pl}(1, 1, 0, 1, 1, 1)_{9201} \\
\ell_9 = b_4 &= \begin{bmatrix} 1 & 0 & \delta^5 & 1 \\ 0 & 1 & 0 & \delta^{10} \end{bmatrix}_{7531} = \begin{bmatrix} 1 & 0 & 11 & 1 \\ 0 & 1 & 0 & 10 \end{bmatrix}_{7531} = \mathbf{Pl}(11, 10, 0, 10, 11, 1)_{50146} \\
\ell_{10} = b_5 &= \begin{bmatrix} 1 & 0 & \delta^{10} & 1 \\ 0 & 1 & 0 & \delta^5 \end{bmatrix}_{7274} = \begin{bmatrix} 1 & 0 & 10 & 1 \\ 0 & 1 & 0 & 11 \end{bmatrix}_{7274} = \mathbf{Pl}(10, 11, 0, 11, 10, 1)_{46080} \\
\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} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69921} = \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69921} = \mathbf{Pl}(0, 1, 0, 1, 0, 0)_{49} \\
\ell_{13} = c_{13} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4898} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4898} = \mathbf{Pl}(0, 1, 1, 1, 1, 1)_{9442} \\
\ell_{14} = c_{14} &= \begin{bmatrix} 1 & \delta^5 & 0 & 1 \\ 0 & 0 & 1 & \delta^{10} \end{bmatrix}_{7637} = \begin{bmatrix} 1 & 11 & 0 & 1 \\ 0 & 0 & 1 & 10 \end{bmatrix}_{7637} = \mathbf{Pl}(0, 10, 11, 10, 11, 1)_{50561} \\
\ell_{15} = c_{15} &= \begin{bmatrix} 1 & \delta^{10} & 0 & 1 \\ 0 & 0 & 1 & \delta^5 \end{bmatrix}_{7365} = \begin{bmatrix} 1 & 10 & 0 & 1 \\ 0 & 0 & 1 & 11 \end{bmatrix}_{7365} = \mathbf{Pl}(0, 11, 10, 11, 10, 1)_{46451} \\
\ell_{16} = c_{16} &= \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_{17} = c_{23} &= \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{289} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{289} = \mathbf{Pl}(1, 1, 0, 0, 1, 1)_{8961} \\
\ell_{18} = c_{24} &= \begin{bmatrix} 1 & 0 & \delta^5 & 0 \\ 0 & 1 & 0 & \delta^{10} \end{bmatrix}_{3163} = \begin{bmatrix} 1 & 0 & 11 & 0 \\ 0 & 1 & 0 & 10 \end{bmatrix}_{3163} = \mathbf{Pl}(11, 10, 0, 0, 11, 1)_{49771} \\
\ell_{19} = c_{25} &= \begin{bmatrix} 1 & 0 & \delta^{10} & 0 \\ 0 & 1 & 0 & \delta^5 \end{bmatrix}_{2906} = \begin{bmatrix} 1 & 0 & 10 & 0 \\ 0 & 1 & 0 & 11 \end{bmatrix}_{2906} = \mathbf{Pl}(10, 11, 0, 0, 10, 1)_{45690} \\
\ell_{20} = c_{26} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{4368} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{4368} = \mathbf{Pl}(1, 0, 0, 1, 0, 0)_{34} \\
\ell_{21} = c_{34} &= \begin{bmatrix} 1 & 0 & \delta^{10} & 0 \\ 0 & 1 & 1 & \delta^5 \end{bmatrix}_{2907} = \begin{bmatrix} 1 & 0 & 10 & 0 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{2907} = \mathbf{Pl}(10, 11, 10, 0, 10, 1)_{45840} \\
\ell_{22} = c_{35} &= \begin{bmatrix} 1 & 0 & \delta^5 & 0 \\ 0 & 1 & 1 & \delta^{10} \end{bmatrix}_{3164} = \begin{bmatrix} 1 & 0 & 11 & 0 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{3164} = \mathbf{Pl}(11, 10, 11, 0, 11, 1)_{49936}
\end{aligned}$$

$$\begin{aligned}
\ell_{23} = c_{36} &= \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{4658} = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{4658} = \mathbf{Pl}(1, 0, 1, 1, 1, 1)_{9427} \\
\ell_{24} = c_{45} &= \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{290} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{290} = \mathbf{Pl}(1, 1, 1, 0, 1, 1)_{8976} \\
\ell_{25} = c_{46} &= \begin{bmatrix} 1 & 0 & \delta^5 & 1 \\ 0 & 1 & 1 & \delta^{10} \end{bmatrix}_{7532} = \begin{bmatrix} 1 & 0 & 11 & 1 \\ 0 & 1 & 1 & 10 \end{bmatrix}_{7532} = \mathbf{Pl}(11, 0, 11, 10, 11, 1)_{50547} \\
\ell_{26} = c_{56} &= \begin{bmatrix} 1 & 0 & \delta^{10} & 1 \\ 0 & 1 & 1 & \delta^5 \end{bmatrix}_{7275} = \begin{bmatrix} 1 & 0 & 10 & 1 \\ 0 & 1 & 1 & 11 \end{bmatrix}_{7275} = \mathbf{Pl}(10, 0, 10, 11, 10, 1)_{46435}
\end{aligned}$$

Rank of lines: (1, 69904, 530, 3269, 2997, 4624, 70160, 4369, 4657, 7531, 7274, 0, 69921, 4898, 7637, 7365, 256, 289, 3163, 2906, 4368, 2907, 3164, 4658, 290, 7532, 7275)

Rank of points on Klein quadric: (3, 33, 9426, 50536, 46425, 18, 1, 64, 9201, 50146, 46080, 0, 49, 9442, 50561, 46451, 2, 8961, 49771, 45690, 34, 45840, 49936, 9427, 8976, 50547, 46435)

Eckardt Points

The surface has 45 Eckardt points:

- 0 : $E_{16} = a_1 \cap b_6 \cap c_{16} = P_0 = \mathbf{P}(1, 0, 0, 0) = \mathbf{P}(1, 0, 0, 0)$,
- 1 : $E_{26} = a_2 \cap b_6 \cap c_{26} = P_1 = \mathbf{P}(0, 1, 0, 0) = \mathbf{P}(0, 1, 0, 0)$,
- 2 : $E_{61} = a_6 \cap b_1 \cap c_{16} = P_2 = \mathbf{P}(0, 0, 1, 0) = \mathbf{P}(0, 0, 1, 0)$,
- 3 : $E_{21} = a_2 \cap b_1 \cap c_{12} = P_3 = \mathbf{P}(0, 0, 0, 1) = \mathbf{P}(0, 0, 0, 1)$,
- 4 : $E_{32} = a_3 \cap b_2 \cap c_{23} = P_4 = \mathbf{P}(1, 1, 1, 1) = \mathbf{P}(1, 1, 1, 1)$,
- 5 : $E_{36} = a_3 \cap b_6 \cap c_{36} = P_5 = \mathbf{P}(1, 1, 0, 0) = \mathbf{P}(1, 1, 0, 0)$,
- 6 : $E_{46} = a_4 \cap b_6 \cap c_{46} = P_{14} = \mathbf{P}(\delta^{10}, 1, 0, 0) = \mathbf{P}(10, 1, 0, 0)$,
- 7 : $E_{56} = a_5 \cap b_6 \cap c_{56} = P_{15} = \mathbf{P}(\delta^5, 1, 0, 0) = \mathbf{P}(11, 1, 0, 0)$,
- 8 : $E_{16,23,45} = c_{16} \cap c_{23} \cap c_{45} = P_{20} = \mathbf{P}(1, 0, 1, 0) = \mathbf{P}(1, 0, 1, 0)$,
- 9 : $E_{16,24,35} = c_{16} \cap c_{24} \cap c_{35} = P_{29} = \mathbf{P}(\delta^{10}, 0, 1, 0) = \mathbf{P}(10, 0, 1, 0)$,
- 10 : $E_{16,25,34} = c_{16} \cap c_{25} \cap c_{34} = P_{30} = \mathbf{P}(\delta^5, 0, 1, 0) = \mathbf{P}(11, 0, 1, 0)$,
- 11 : $E_{12} = a_1 \cap b_2 \cap c_{12} = P_{35} = \mathbf{P}(0, 1, 1, 0) = \mathbf{P}(0, 1, 1, 0)$,
- 12 : $E_{13} = a_1 \cap b_3 \cap c_{13} = P_{36} = \mathbf{P}(1, 1, 1, 0) = \mathbf{P}(1, 1, 1, 0)$,
- 13 : $E_{14} = a_1 \cap b_4 \cap c_{14} = P_{45} = \mathbf{P}(\delta^{10}, 1, 1, 0) = \mathbf{P}(10, 1, 1, 0)$,
- 14 : $E_{15} = a_1 \cap b_5 \cap c_{15} = P_{46} = \mathbf{P}(\delta^5, 1, 1, 0) = \mathbf{P}(11, 1, 1, 0)$,
- 15 : $E_{62} = a_6 \cap b_2 \cap c_{26} = P_{275} = \mathbf{P}(1, 0, 0, 1) = \mathbf{P}(1, 0, 0, 1)$,
- 16 : $E_{23} = a_2 \cap b_3 \cap c_{23} = P_{290} = \mathbf{P}(0, 1, 0, 1) = \mathbf{P}(0, 1, 0, 1)$,
- 17 : $E_{13,26,45} = c_{13} \cap c_{26} \cap c_{45} = P_{291} = \mathbf{P}(1, 1, 0, 1) = \mathbf{P}(1, 1, 0, 1)$,
- 18 : $E_{25} = a_2 \cap b_5 \cap c_{25} = P_{434} = \mathbf{P}(0, \delta^{10}, 0, 1) = \mathbf{P}(0, 10, 0, 1)$,
- 19 : $E_{15,26,34} = c_{15} \cap c_{26} \cap c_{34} = P_{435} = \mathbf{P}(1, \delta^{10}, 0, 1) = \mathbf{P}(1, 10, 0, 1)$,
- 20 : $E_{24} = a_2 \cap b_4 \cap c_{24} = P_{450} = \mathbf{P}(0, \delta^5, 0, 1) = \mathbf{P}(0, 11, 0, 1)$,
- 21 : $E_{14,26,35} = c_{14} \cap c_{26} \cap c_{35} = P_{451} = \mathbf{P}(1, \delta^5, 0, 1) = \mathbf{P}(1, 11, 0, 1)$,
- 22 : $E_{31} = a_3 \cap b_1 \cap c_{13} = P_{530} = \mathbf{P}(0, 0, 1, 1) = \mathbf{P}(0, 0, 1, 1)$,
- 23 : $E_{63} = a_6 \cap b_3 \cap c_{36} = P_{531} = \mathbf{P}(1, 0, 1, 1) = \mathbf{P}(1, 0, 1, 1)$,
- 24 : $E_{12,36,45} = c_{12} \cap c_{36} \cap c_{45} = P_{546} = \mathbf{P}(0, 1, 1, 1) = \mathbf{P}(0, 1, 1, 1)$,
- 25 : $E_{34} = a_3 \cap b_4 \cap c_{34} = P_{699} = \mathbf{P}(\delta^{10}, \delta^{10}, 1, 1) = \mathbf{P}(10, 10, 1, 1)$,
- 26 : $E_{14,25,36} = c_{14} \cap c_{25} \cap c_{36} = P_{700} = \mathbf{P}(\delta^5, \delta^{10}, 1, 1) = \mathbf{P}(11, 10, 1, 1)$,
- 27 : $E_{15,24,36} = c_{15} \cap c_{24} \cap c_{36} = P_{715} = \mathbf{P}(\delta^{10}, \delta^5, 1, 1) = \mathbf{P}(10, 11, 1, 1)$,
- 28 : $E_{35} = a_3 \cap b_5 \cap c_{35} = P_{716} = \mathbf{P}(\delta^5, \delta^5, 1, 1) = \mathbf{P}(11, 11, 1, 1)$,
- 29 : $E_{51} = a_5 \cap b_1 \cap c_{15} = P_{2833} = \mathbf{P}(0, 0, \delta^{10}, 1) = \mathbf{P}(0, 0, 10, 1)$,
- 30 : $E_{65} = a_6 \cap b_5 \cap c_{56} = P_{2834} = \mathbf{P}(1, 0, \delta^{10}, 1) = \mathbf{P}(1, 0, 10, 1)$,
- 31 : $E_{14,23,56} = c_{14} \cap c_{23} \cap c_{56} = P_{2859} = \mathbf{P}(\delta^{10}, 1, \delta^{10}, 1) = \mathbf{P}(10, 1, 10, 1)$,
- 32 : $E_{54} = a_5 \cap b_4 \cap c_{45} = P_{2860} = \mathbf{P}(\delta^5, 1, \delta^{10}, 1) = \mathbf{P}(11, 1, 10, 1)$,
- 33 : $E_{12,34,56} = c_{12} \cap c_{34} \cap c_{56} = P_{2993} = \mathbf{P}(0, \delta^{10}, \delta^{10}, 1) = \mathbf{P}(0, 10, 10, 1)$,
- 34 : $E_{52} = a_5 \cap b_2 \cap c_{25} = P_{2994} = \mathbf{P}(1, \delta^{10}, \delta^{10}, 1) = \mathbf{P}(1, 10, 10, 1)$,

- 35 : $E_{53} = a_5 \cap b_3 \cap c_{35} = P_{3019} = \mathbf{P}(\delta^{10}, \delta^5, \delta^{10}, 1) = \mathbf{P}(10, 11, 10, 1)$,
 36 : $E_{13,24,56} = c_{13} \cap c_{24} \cap c_{56} = P_{3020} = \mathbf{P}(\delta^5, \delta^5, \delta^{10}, 1) = \mathbf{P}(11, 11, 10, 1)$,
 37 : $E_{41} = a_4 \cap b_1 \cap c_{14} = P_{3089} = \mathbf{P}(0, 0, \delta^5, 1) = \mathbf{P}(0, 0, 11, 1)$,
 38 : $E_{64} = a_6 \cap b_4 \cap c_{46} = P_{3090} = \mathbf{P}(1, 0, \delta^5, 1) = \mathbf{P}(1, 0, 11, 1)$,
 39 : $E_{45} = a_4 \cap b_5 \cap c_{45} = P_{3115} = \mathbf{P}(\delta^{10}, 1, \delta^5, 1) = \mathbf{P}(10, 1, 11, 1)$,
 40 : $E_{15,23,46} = c_{15} \cap c_{23} \cap c_{46} = P_{3116} = \mathbf{P}(\delta^5, 1, \delta^5, 1) = \mathbf{P}(11, 1, 11, 1)$,
 41 : $E_{13,25,46} = c_{13} \cap c_{25} \cap c_{46} = P_{3259} = \mathbf{P}(\delta^{10}, \delta^{10}, \delta^5, 1) = \mathbf{P}(10, 10, 11, 1)$,
 42 : $E_{43} = a_4 \cap b_3 \cap c_{34} = P_{3260} = \mathbf{P}(\delta^5, \delta^{10}, \delta^5, 1) = \mathbf{P}(11, 10, 11, 1)$,
 43 : $E_{12,35,46} = c_{12} \cap c_{35} \cap c_{46} = P_{3265} = \mathbf{P}(0, \delta^5, \delta^5, 1) = \mathbf{P}(0, 11, 11, 1)$,
 44 : $E_{42} = a_4 \cap b_2 \cap c_{24} = P_{3266} = \mathbf{P}(1, \delta^5, \delta^5, 1) = \mathbf{P}(1, 11, 11, 1)$.

Double Points

The surface has 0 Double points:
 The double points on the surface are:

Single Points

The surface has 324 single points:
 The single points on the surface are:

- | | |
|---|--|
| 0 : $P_6 = (2, 1, 0, 0)$ lies on line b_6 | 29 : $P_{42} = (7, 1, 1, 0)$ lies on line a_1 |
| 1 : $P_7 = (3, 1, 0, 0)$ lies on line b_6 | 30 : $P_{43} = (8, 1, 1, 0)$ lies on line a_1 |
| 2 : $P_8 = (4, 1, 0, 0)$ lies on line b_6 | 31 : $P_{44} = (9, 1, 1, 0)$ lies on line a_1 |
| 3 : $P_9 = (5, 1, 0, 0)$ lies on line b_6 | 32 : $P_{47} = (12, 1, 1, 0)$ lies on line a_1 |
| 4 : $P_{10} = (6, 1, 0, 0)$ lies on line b_6 | 33 : $P_{48} = (13, 1, 1, 0)$ lies on line a_1 |
| 5 : $P_{11} = (7, 1, 0, 0)$ lies on line b_6 | 34 : $P_{49} = (14, 1, 1, 0)$ lies on line a_1 |
| 6 : $P_{12} = (8, 1, 0, 0)$ lies on line b_6 | 35 : $P_{50} = (15, 1, 1, 0)$ lies on line a_1 |
| 7 : $P_{13} = (9, 1, 0, 0)$ lies on line b_6 | 36 : $P_{306} = (0, 2, 0, 1)$ lies on line a_2 |
| 8 : $P_{16} = (12, 1, 0, 0)$ lies on line b_6 | 37 : $P_{307} = (1, 2, 0, 1)$ lies on line c_{26} |
| 9 : $P_{17} = (13, 1, 0, 0)$ lies on line b_6 | 38 : $P_{322} = (0, 3, 0, 1)$ lies on line a_2 |
| 10 : $P_{18} = (14, 1, 0, 0)$ lies on line b_6 | 39 : $P_{323} = (1, 3, 0, 1)$ lies on line c_{26} |
| 11 : $P_{19} = (15, 1, 0, 0)$ lies on line b_6 | 40 : $P_{338} = (0, 4, 0, 1)$ lies on line a_2 |
| 12 : $P_{21} = (2, 0, 1, 0)$ lies on line c_{16} | 41 : $P_{339} = (1, 4, 0, 1)$ lies on line c_{26} |
| 13 : $P_{22} = (3, 0, 1, 0)$ lies on line c_{16} | 42 : $P_{354} = (0, 5, 0, 1)$ lies on line a_2 |
| 14 : $P_{23} = (4, 0, 1, 0)$ lies on line c_{16} | 43 : $P_{355} = (1, 5, 0, 1)$ lies on line c_{26} |
| 15 : $P_{24} = (5, 0, 1, 0)$ lies on line c_{16} | 44 : $P_{370} = (0, 6, 0, 1)$ lies on line a_2 |
| 16 : $P_{25} = (6, 0, 1, 0)$ lies on line c_{16} | 45 : $P_{371} = (1, 6, 0, 1)$ lies on line c_{26} |
| 17 : $P_{26} = (7, 0, 1, 0)$ lies on line c_{16} | 46 : $P_{386} = (0, 7, 0, 1)$ lies on line a_2 |
| 18 : $P_{27} = (8, 0, 1, 0)$ lies on line c_{16} | 47 : $P_{387} = (1, 7, 0, 1)$ lies on line c_{26} |
| 19 : $P_{28} = (9, 0, 1, 0)$ lies on line c_{16} | 48 : $P_{402} = (0, 8, 0, 1)$ lies on line a_2 |
| 20 : $P_{31} = (12, 0, 1, 0)$ lies on line c_{16} | 49 : $P_{403} = (1, 8, 0, 1)$ lies on line c_{26} |
| 21 : $P_{32} = (13, 0, 1, 0)$ lies on line c_{16} | 50 : $P_{418} = (0, 9, 0, 1)$ lies on line a_2 |
| 22 : $P_{33} = (14, 0, 1, 0)$ lies on line c_{16} | 51 : $P_{419} = (1, 9, 0, 1)$ lies on line c_{26} |
| 23 : $P_{34} = (15, 0, 1, 0)$ lies on line c_{16} | 52 : $P_{466} = (0, 12, 0, 1)$ lies on line a_2 |
| 24 : $P_{37} = (2, 1, 1, 0)$ lies on line a_1 | 53 : $P_{467} = (1, 12, 0, 1)$ lies on line c_{26} |
| 25 : $P_{38} = (3, 1, 1, 0)$ lies on line a_1 | 54 : $P_{482} = (0, 13, 0, 1)$ lies on line a_2 |
| 26 : $P_{39} = (4, 1, 1, 0)$ lies on line a_1 | 55 : $P_{483} = (1, 13, 0, 1)$ lies on line c_{26} |
| 27 : $P_{40} = (5, 1, 1, 0)$ lies on line a_1 | 56 : $P_{498} = (0, 14, 0, 1)$ lies on line a_2 |
| 28 : $P_{41} = (6, 1, 1, 0)$ lies on line a_1 | 57 : $P_{499} = (1, 14, 0, 1)$ lies on line c_{26} |

58 : $P_{514} = (0, 15, 0, 1)$ lies on line a_2
 59 : $P_{515} = (1, 15, 0, 1)$ lies on line c_{26}
 60 : $P_{563} = (2, 2, 1, 1)$ lies on line a_3
 61 : $P_{564} = (3, 2, 1, 1)$ lies on line c_{36}
 62 : $P_{579} = (2, 3, 1, 1)$ lies on line c_{36}
 63 : $P_{580} = (3, 3, 1, 1)$ lies on line a_3
 64 : $P_{597} = (4, 4, 1, 1)$ lies on line a_3
 65 : $P_{598} = (5, 4, 1, 1)$ lies on line c_{36}
 66 : $P_{613} = (4, 5, 1, 1)$ lies on line c_{36}
 67 : $P_{614} = (5, 5, 1, 1)$ lies on line a_3
 68 : $P_{631} = (6, 6, 1, 1)$ lies on line a_3
 69 : $P_{632} = (7, 6, 1, 1)$ lies on line c_{36}
 70 : $P_{647} = (6, 7, 1, 1)$ lies on line c_{36}
 71 : $P_{648} = (7, 7, 1, 1)$ lies on line a_3
 72 : $P_{665} = (8, 8, 1, 1)$ lies on line a_3
 73 : $P_{666} = (9, 8, 1, 1)$ lies on line c_{36}
 74 : $P_{681} = (8, 9, 1, 1)$ lies on line c_{36}
 75 : $P_{682} = (9, 9, 1, 1)$ lies on line a_3
 76 : $P_{733} = (12, 12, 1, 1)$ lies on line a_3
 77 : $P_{734} = (13, 12, 1, 1)$ lies on line c_{36}
 78 : $P_{749} = (12, 13, 1, 1)$ lies on line c_{36}
 79 : $P_{750} = (13, 13, 1, 1)$ lies on line a_3
 80 : $P_{767} = (14, 14, 1, 1)$ lies on line a_3
 81 : $P_{768} = (15, 14, 1, 1)$ lies on line c_{36}
 82 : $P_{783} = (14, 15, 1, 1)$ lies on line c_{36}
 83 : $P_{784} = (15, 15, 1, 1)$ lies on line a_3
 84 : $P_{785} = (0, 0, 2, 1)$ lies on line b_1
 85 : $P_{786} = (1, 0, 2, 1)$ lies on line a_6
 86 : $P_{803} = (2, 1, 2, 1)$ lies on line c_{23}
 87 : $P_{804} = (3, 1, 2, 1)$ lies on line c_{45}
 88 : $P_{817} = (0, 2, 2, 1)$ lies on line c_{12}
 89 : $P_{818} = (1, 2, 2, 1)$ lies on line b_2
 90 : $P_{835} = (2, 3, 2, 1)$ lies on line b_3
 91 : $P_{836} = (3, 3, 2, 1)$ lies on line c_{13}
 92 : $P_{927} = (14, 8, 2, 1)$ lies on line c_{15}
 93 : $P_{928} = (15, 8, 2, 1)$ lies on line b_5
 94 : $P_{941} = (12, 9, 2, 1)$ lies on line c_{14}
 95 : $P_{942} = (13, 9, 2, 1)$ lies on line b_4
 96 : $P_{959} = (14, 10, 2, 1)$ lies on line c_{34}
 97 : $P_{960} = (15, 10, 2, 1)$ lies on line c_{25}
 98 : $P_{973} = (12, 11, 2, 1)$ lies on line c_{35}
 99 : $P_{974} = (13, 11, 2, 1)$ lies on line c_{24}
 100 : $P_{1041} = (0, 0, 3, 1)$ lies on line b_1
 101 : $P_{1042} = (1, 0, 3, 1)$ lies on line a_6
 102 : $P_{1059} = (2, 1, 3, 1)$ lies on line c_{45}
 103 : $P_{1060} = (3, 1, 3, 1)$ lies on line c_{23}
 104 : $P_{1075} = (2, 2, 3, 1)$ lies on line c_{13}
 105 : $P_{1076} = (3, 2, 3, 1)$ lies on line b_3
 106 : $P_{1089} = (0, 3, 3, 1)$ lies on line c_{12}
 107 : $P_{1090} = (1, 3, 3, 1)$ lies on line b_2
 108 : $P_{1175} = (6, 8, 3, 1)$ lies on line c_{14}
 109 : $P_{1176} = (7, 8, 3, 1)$ lies on line b_4
 110 : $P_{1189} = (4, 9, 3, 1)$ lies on line b_5
 111 : $P_{1190} = (5, 9, 3, 1)$ lies on line c_{15}

112 : $P_{1205} = (4, 10, 3, 1)$ lies on line c_{25}
 113 : $P_{1206} = (5, 10, 3, 1)$ lies on line c_{34}
 114 : $P_{1223} = (6, 11, 3, 1)$ lies on line c_{35}
 115 : $P_{1224} = (7, 11, 3, 1)$ lies on line c_{24}
 116 : $P_{1297} = (0, 0, 4, 1)$ lies on line b_1
 117 : $P_{1298} = (1, 0, 4, 1)$ lies on line a_6
 118 : $P_{1317} = (4, 1, 4, 1)$ lies on line c_{23}
 119 : $P_{1318} = (5, 1, 4, 1)$ lies on line c_{45}
 120 : $P_{1361} = (0, 4, 4, 1)$ lies on line c_{12}
 121 : $P_{1362} = (1, 4, 4, 1)$ lies on line b_2
 122 : $P_{1381} = (4, 5, 4, 1)$ lies on line b_3
 123 : $P_{1382} = (5, 5, 4, 1)$ lies on line c_{13}
 124 : $P_{1463} = (6, 10, 4, 1)$ lies on line c_{34}
 125 : $P_{1464} = (7, 10, 4, 1)$ lies on line c_{25}
 126 : $P_{1475} = (2, 11, 4, 1)$ lies on line c_{35}
 127 : $P_{1476} = (3, 11, 4, 1)$ lies on line c_{24}
 128 : $P_{1527} = (6, 14, 4, 1)$ lies on line c_{15}
 129 : $P_{1528} = (7, 14, 4, 1)$ lies on line b_5
 130 : $P_{1539} = (2, 15, 4, 1)$ lies on line c_{14}
 131 : $P_{1540} = (3, 15, 4, 1)$ lies on line b_4
 132 : $P_{1553} = (0, 0, 5, 1)$ lies on line b_1
 133 : $P_{1554} = (1, 0, 5, 1)$ lies on line a_6
 134 : $P_{1573} = (4, 1, 5, 1)$ lies on line c_{45}
 135 : $P_{1574} = (5, 1, 5, 1)$ lies on line c_{23}
 136 : $P_{1621} = (4, 4, 5, 1)$ lies on line c_{13}
 137 : $P_{1622} = (5, 4, 5, 1)$ lies on line b_3
 138 : $P_{1633} = (0, 5, 5, 1)$ lies on line c_{12}
 139 : $P_{1634} = (1, 5, 5, 1)$ lies on line b_2
 140 : $P_{1725} = (12, 10, 5, 1)$ lies on line c_{25}
 141 : $P_{1726} = (13, 10, 5, 1)$ lies on line c_{34}
 142 : $P_{1737} = (8, 11, 5, 1)$ lies on line c_{35}
 143 : $P_{1738} = (9, 11, 5, 1)$ lies on line c_{24}
 144 : $P_{1785} = (8, 14, 5, 1)$ lies on line c_{14}
 145 : $P_{1786} = (9, 14, 5, 1)$ lies on line b_4
 146 : $P_{1805} = (12, 15, 5, 1)$ lies on line b_5
 147 : $P_{1806} = (13, 15, 5, 1)$ lies on line c_{15}
 148 : $P_{1809} = (0, 0, 6, 1)$ lies on line b_1
 149 : $P_{1810} = (1, 0, 6, 1)$ lies on line a_6
 150 : $P_{1831} = (6, 1, 6, 1)$ lies on line c_{23}
 151 : $P_{1832} = (7, 1, 6, 1)$ lies on line c_{45}
 152 : $P_{1905} = (0, 6, 6, 1)$ lies on line c_{12}
 153 : $P_{1906} = (1, 6, 6, 1)$ lies on line b_2
 154 : $P_{1927} = (6, 7, 6, 1)$ lies on line b_3
 155 : $P_{1928} = (7, 7, 6, 1)$ lies on line c_{13}
 156 : $P_{1977} = (8, 10, 6, 1)$ lies on line c_{25}
 157 : $P_{1978} = (9, 10, 6, 1)$ lies on line c_{34}
 158 : $P_{1999} = (14, 11, 6, 1)$ lies on line c_{24}
 159 : $P_{2000} = (15, 11, 6, 1)$ lies on line c_{35}
 160 : $P_{2009} = (8, 12, 6, 1)$ lies on line b_5
 161 : $P_{2010} = (9, 12, 6, 1)$ lies on line c_{15}
 162 : $P_{2031} = (14, 13, 6, 1)$ lies on line b_4
 163 : $P_{2032} = (15, 13, 6, 1)$ lies on line c_{14}
 164 : $P_{2065} = (0, 0, 7, 1)$ lies on line b_1
 165 : $P_{2066} = (1, 0, 7, 1)$ lies on line a_6

166 : $P_{2087} = (6, 1, 7, 1)$ lies on line c_{45}
167 : $P_{2088} = (7, 1, 7, 1)$ lies on line c_{23}
168 : $P_{2167} = (6, 6, 7, 1)$ lies on line c_{13}
169 : $P_{2168} = (7, 6, 7, 1)$ lies on line b_3
170 : $P_{2177} = (0, 7, 7, 1)$ lies on line c_{12}
171 : $P_{2178} = (1, 7, 7, 1)$ lies on line b_2
172 : $P_{2227} = (2, 10, 7, 1)$ lies on line c_{34}
173 : $P_{2228} = (3, 10, 7, 1)$ lies on line c_{25}
174 : $P_{2245} = (4, 11, 7, 1)$ lies on line c_{24}
175 : $P_{2246} = (5, 11, 7, 1)$ lies on line c_{35}
176 : $P_{2261} = (4, 12, 7, 1)$ lies on line b_4
177 : $P_{2262} = (5, 12, 7, 1)$ lies on line c_{14}
178 : $P_{2275} = (2, 13, 7, 1)$ lies on line c_{15}
179 : $P_{2276} = (3, 13, 7, 1)$ lies on line b_5
180 : $P_{2321} = (0, 0, 8, 1)$ lies on line b_1
181 : $P_{2322} = (1, 0, 8, 1)$ lies on line a_6
182 : $P_{2345} = (8, 1, 8, 1)$ lies on line c_{23}
183 : $P_{2346} = (9, 1, 8, 1)$ lies on line c_{45}
184 : $P_{2367} = (14, 2, 8, 1)$ lies on line b_5
185 : $P_{2368} = (15, 2, 8, 1)$ lies on line c_{15}
186 : $P_{2375} = (6, 3, 8, 1)$ lies on line b_4
187 : $P_{2376} = (7, 3, 8, 1)$ lies on line c_{14}
188 : $P_{2449} = (0, 8, 8, 1)$ lies on line c_{12}
189 : $P_{2450} = (1, 8, 8, 1)$ lies on line b_2
190 : $P_{2473} = (8, 9, 8, 1)$ lies on line b_3
191 : $P_{2474} = (9, 9, 8, 1)$ lies on line c_{13}
192 : $P_{2495} = (14, 10, 8, 1)$ lies on line c_{25}
193 : $P_{2496} = (15, 10, 8, 1)$ lies on line c_{34}
194 : $P_{2503} = (6, 11, 8, 1)$ lies on line c_{24}
195 : $P_{2504} = (7, 11, 8, 1)$ lies on line c_{35}
196 : $P_{2577} = (0, 0, 9, 1)$ lies on line b_1
197 : $P_{2578} = (1, 0, 9, 1)$ lies on line a_6
198 : $P_{2601} = (8, 1, 9, 1)$ lies on line c_{45}
199 : $P_{2602} = (9, 1, 9, 1)$ lies on line c_{23}
200 : $P_{2621} = (12, 2, 9, 1)$ lies on line b_4
201 : $P_{2622} = (13, 2, 9, 1)$ lies on line c_{14}
202 : $P_{2629} = (4, 3, 9, 1)$ lies on line c_{15}
203 : $P_{2630} = (5, 3, 9, 1)$ lies on line b_5
204 : $P_{2713} = (8, 8, 9, 1)$ lies on line c_{13}
205 : $P_{2714} = (9, 8, 9, 1)$ lies on line b_3
206 : $P_{2721} = (0, 9, 9, 1)$ lies on line c_{12}
207 : $P_{2722} = (1, 9, 9, 1)$ lies on line b_2
208 : $P_{2741} = (4, 10, 9, 1)$ lies on line c_{34}
209 : $P_{2742} = (5, 10, 9, 1)$ lies on line c_{25}
210 : $P_{2765} = (12, 11, 9, 1)$ lies on line c_{24}
211 : $P_{2766} = (13, 11, 9, 1)$ lies on line c_{35}
212 : $P_{2879} = (14, 2, 10, 1)$ lies on line c_{56}
213 : $P_{2880} = (15, 2, 10, 1)$ lies on line a_5
214 : $P_{2885} = (4, 3, 10, 1)$ lies on line a_5
215 : $P_{2886} = (5, 3, 10, 1)$ lies on line c_{56}
216 : $P_{2903} = (6, 4, 10, 1)$ lies on line c_{56}
217 : $P_{2904} = (7, 4, 10, 1)$ lies on line a_5
218 : $P_{2925} = (12, 5, 10, 1)$ lies on line a_5
219 : $P_{2926} = (13, 5, 10, 1)$ lies on line c_{56}
220 : $P_{2937} = (8, 6, 10, 1)$ lies on line a_5
221 : $P_{2938} = (9, 6, 10, 1)$ lies on line c_{56}
222 : $P_{2947} = (2, 7, 10, 1)$ lies on line c_{56}
223 : $P_{2948} = (3, 7, 10, 1)$ lies on line a_5
224 : $P_{2975} = (14, 8, 10, 1)$ lies on line a_5
225 : $P_{2976} = (15, 8, 10, 1)$ lies on line c_{56}
226 : $P_{2981} = (4, 9, 10, 1)$ lies on line c_{56}
227 : $P_{2982} = (5, 9, 10, 1)$ lies on line a_5
228 : $P_{3033} = (8, 12, 10, 1)$ lies on line c_{56}
229 : $P_{3034} = (9, 12, 10, 1)$ lies on line a_5
230 : $P_{3043} = (2, 13, 10, 1)$ lies on line a_5
231 : $P_{3044} = (3, 13, 10, 1)$ lies on line c_{56}
232 : $P_{3063} = (6, 14, 10, 1)$ lies on line a_5
233 : $P_{3064} = (7, 14, 10, 1)$ lies on line c_{56}
234 : $P_{3085} = (12, 15, 10, 1)$ lies on line c_{56}
235 : $P_{3086} = (13, 15, 10, 1)$ lies on line a_5
236 : $P_{3133} = (12, 2, 11, 1)$ lies on line c_{46}
237 : $P_{3134} = (13, 2, 11, 1)$ lies on line a_4
238 : $P_{3143} = (6, 3, 11, 1)$ lies on line c_{46}
239 : $P_{3144} = (7, 3, 11, 1)$ lies on line a_4
240 : $P_{3155} = (2, 4, 11, 1)$ lies on line c_{46}
241 : $P_{3156} = (3, 4, 11, 1)$ lies on line a_4
242 : $P_{3177} = (8, 5, 11, 1)$ lies on line c_{46}
243 : $P_{3178} = (9, 5, 11, 1)$ lies on line a_4
244 : $P_{3199} = (14, 6, 11, 1)$ lies on line a_4
245 : $P_{3200} = (15, 6, 11, 1)$ lies on line c_{46}
246 : $P_{3205} = (4, 7, 11, 1)$ lies on line a_4
247 : $P_{3206} = (5, 7, 11, 1)$ lies on line c_{46}
248 : $P_{3223} = (6, 8, 11, 1)$ lies on line a_4
249 : $P_{3224} = (7, 8, 11, 1)$ lies on line c_{46}
250 : $P_{3245} = (12, 9, 11, 1)$ lies on line a_4
251 : $P_{3246} = (13, 9, 11, 1)$ lies on line c_{46}
252 : $P_{3285} = (4, 12, 11, 1)$ lies on line c_{46}
253 : $P_{3286} = (5, 12, 11, 1)$ lies on line a_4
254 : $P_{3311} = (14, 13, 11, 1)$ lies on line c_{46}
255 : $P_{3312} = (15, 13, 11, 1)$ lies on line a_4
256 : $P_{3321} = (8, 14, 11, 1)$ lies on line a_4
257 : $P_{3322} = (9, 14, 11, 1)$ lies on line c_{46}
258 : $P_{3331} = (2, 15, 11, 1)$ lies on line a_4
259 : $P_{3332} = (3, 15, 11, 1)$ lies on line c_{46}
260 : $P_{3345} = (0, 0, 12, 1)$ lies on line b_1
261 : $P_{3346} = (1, 0, 12, 1)$ lies on line a_6
262 : $P_{3373} = (12, 1, 12, 1)$ lies on line c_{23}
263 : $P_{3374} = (13, 1, 12, 1)$ lies on line c_{45}
264 : $P_{3449} = (8, 6, 12, 1)$ lies on line c_{15}
265 : $P_{3450} = (9, 6, 12, 1)$ lies on line b_5
266 : $P_{3461} = (4, 7, 12, 1)$ lies on line c_{14}
267 : $P_{3462} = (5, 7, 12, 1)$ lies on line b_4
268 : $P_{3513} = (8, 10, 12, 1)$ lies on line c_{34}
269 : $P_{3514} = (9, 10, 12, 1)$ lies on line c_{25}
270 : $P_{3525} = (4, 11, 12, 1)$ lies on line c_{35}
271 : $P_{3526} = (5, 11, 12, 1)$ lies on line c_{24}
272 : $P_{3537} = (0, 12, 12, 1)$ lies on line c_{12}
273 : $P_{3538} = (1, 12, 12, 1)$ lies on line b_2

274 : $P_{3565} = (12, 13, 12, 1)$ lies on line b_3	300 : $P_{4023} = (6, 10, 14, 1)$ lies on line c_{25}
275 : $P_{3566} = (13, 13, 12, 1)$ lies on line c_{13}	301 : $P_{4024} = (7, 10, 14, 1)$ lies on line c_{34}
276 : $P_{3601} = (0, 0, 13, 1)$ lies on line b_1	302 : $P_{4041} = (8, 11, 14, 1)$ lies on line c_{24}
277 : $P_{3602} = (1, 0, 13, 1)$ lies on line a_6	303 : $P_{4042} = (9, 11, 14, 1)$ lies on line c_{35}
278 : $P_{3629} = (12, 1, 13, 1)$ lies on line c_{45}	304 : $P_{4081} = (0, 14, 14, 1)$ lies on line c_{12}
279 : $P_{3630} = (13, 1, 13, 1)$ lies on line c_{23}	305 : $P_{4082} = (1, 14, 14, 1)$ lies on line b_2
280 : $P_{3711} = (14, 6, 13, 1)$ lies on line c_{14}	306 : $P_{4111} = (14, 15, 14, 1)$ lies on line b_3
281 : $P_{3712} = (15, 6, 13, 1)$ lies on line b_4	307 : $P_{4112} = (15, 15, 14, 1)$ lies on line c_{13}
282 : $P_{3715} = (2, 7, 13, 1)$ lies on line b_5	308 : $P_{4113} = (0, 0, 15, 1)$ lies on line b_1
283 : $P_{3716} = (3, 7, 13, 1)$ lies on line c_{15}	309 : $P_{4114} = (1, 0, 15, 1)$ lies on line a_6
284 : $P_{3763} = (2, 10, 13, 1)$ lies on line c_{25}	310 : $P_{4143} = (14, 1, 15, 1)$ lies on line c_{45}
285 : $P_{3764} = (3, 10, 13, 1)$ lies on line c_{34}	311 : $P_{4144} = (15, 1, 15, 1)$ lies on line c_{23}
286 : $P_{3791} = (14, 11, 13, 1)$ lies on line c_{35}	312 : $P_{4179} = (2, 4, 15, 1)$ lies on line b_4
287 : $P_{3792} = (15, 11, 13, 1)$ lies on line c_{24}	313 : $P_{4180} = (3, 4, 15, 1)$ lies on line c_{14}
288 : $P_{3805} = (12, 12, 13, 1)$ lies on line c_{13}	314 : $P_{4205} = (12, 5, 15, 1)$ lies on line c_{15}
289 : $P_{3806} = (13, 12, 13, 1)$ lies on line b_3	315 : $P_{4206} = (13, 5, 15, 1)$ lies on line b_5
290 : $P_{3809} = (0, 13, 13, 1)$ lies on line c_{12}	316 : $P_{4285} = (12, 10, 15, 1)$ lies on line c_{34}
291 : $P_{3810} = (1, 13, 13, 1)$ lies on line b_2	317 : $P_{4286} = (13, 10, 15, 1)$ lies on line c_{25}
292 : $P_{3857} = (0, 0, 14, 1)$ lies on line b_1	318 : $P_{4291} = (2, 11, 15, 1)$ lies on line c_{24}
293 : $P_{3858} = (1, 0, 14, 1)$ lies on line a_6	319 : $P_{4292} = (3, 11, 15, 1)$ lies on line c_{35}
294 : $P_{3887} = (14, 1, 14, 1)$ lies on line c_{23}	320 : $P_{4351} = (14, 14, 15, 1)$ lies on line c_{13}
295 : $P_{3888} = (15, 1, 14, 1)$ lies on line c_{45}	321 : $P_{4352} = (15, 14, 15, 1)$ lies on line b_3
296 : $P_{3927} = (6, 4, 14, 1)$ lies on line b_5	322 : $P_{4353} = (0, 15, 15, 1)$ lies on line c_{12}
297 : $P_{3928} = (7, 4, 14, 1)$ lies on line c_{15}	323 : $P_{4354} = (1, 15, 15, 1)$ lies on line b_2
298 : $P_{3945} = (8, 5, 14, 1)$ lies on line b_4	
299 : $P_{3946} = (9, 5, 14, 1)$ lies on line c_{14}	

The single points on the surface are:

Points on surface but on no line

The surface has 0 points not on any line:

The points on the surface but not on lines are:

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_{35}	P_{36}	P_{45}	P_{46}	P_0	P_{35}	P_{36}	P_{45}	P_{46}	P_0

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_3	P_{290}	P_{450}	P_{434}	P_1	P_3	P_{290}	P_{450}	P_{434}	P_1

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_{530}	P_4	P_{699}	P_{716}	P_5	P_{530}	P_4	P_{699}	P_{716}	P_5

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_{3089}	P_{3266}	P_{3260}	P_{3115}	P_{14}	P_{3089}	P_{3266}	P_{3260}	P_{3115}	P_{14}

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_{2833}	P_{2994}	P_{3019}	P_{2860}	P_{15}	P_{2833}	P_{2994}	P_{3019}	P_{2860}	P_{15}

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_2	P_{275}	P_{531}	P_{3090}	P_{2834}	P_2	P_{275}	P_{531}	P_{3090}	P_{2834}

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_3	P_{530}	P_{3089}	P_{2833}	P_2	P_3	P_{530}	P_{3089}	P_{2833}	P_2

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_{35}	P_4	P_{3266}	P_{2994}	P_{275}	P_{35}	P_4	P_{3266}	P_{2994}	P_{275}

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_{36}	P_{290}	P_{3260}	P_{3019}	P_{531}	P_{36}	P_{290}	P_{3260}	P_{3019}	P_{531}

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_{45}	P_{450}	P_{699}	P_{2860}	P_{3090}	P_{45}	P_{450}	P_{699}	P_{2860}	P_{3090}

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_{46}	P_{434}	P_{716}	P_{3115}	P_{2834}	P_{46}	P_{434}	P_{716}	P_{3115}	P_{2834}

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_1	P_5	P_{14}	P_{15}	P_0	P_1	P_5	P_{14}	P_{15}

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_{35}	P_3	P_3	P_{35}	P_{2993}	P_{3265}	P_{546}	P_{546}	P_{3265}	P_{2993}

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_{36}	P_{530}	P_{530}	P_{36}	P_{3020}	P_{3259}	P_{291}	P_{291}	P_{3259}	P_{3020}

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_{45}	P_{3089}	P_{3089}	P_{45}	P_{2859}	P_{700}	P_{451}	P_{451}	P_{700}	P_{2859}

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_{46}	P_{2833}	P_{2833}	P_{46}	P_{3116}	P_{715}	P_{435}	P_{435}	P_{715}	P_{3116}

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_0	P_2	P_2	P_0	P_{20}	P_{29}	P_{30}	P_{30}	P_{29}	P_{20}

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_{290}	P_4	P_4	P_{290}	P_{2859}	P_{3116}	P_{20}	P_{20}	P_{3116}	P_{2859}

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_{450}	P_{3266}	P_{3266}	P_{450}	P_{3020}	P_{715}	P_{29}	P_{29}	P_{715}	P_{3020}

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_{434}	P_{2994}	P_{2994}	P_{434}	P_{3259}	P_{700}	P_{30}	P_{30}	P_{700}	P_{3259}

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_1	P_{275}	P_{275}	P_1	P_{291}	P_{451}	P_{435}	P_{435}	P_{451}	P_{291}

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_{699}	P_{3260}	P_{3260}	P_{699}	P_{2993}	P_{435}	P_{30}	P_{30}	P_{435}	P_{2993}

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_{716}	P_{3019}	P_{3019}	P_{716}	P_{3265}	P_{451}	P_{29}	P_{29}	P_{451}	P_{3265}

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_5	P_{531}	P_{531}	P_5	P_{546}	P_{700}	P_{715}	P_{715}	P_{700}	P_{546}

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_{3115}	P_{2860}	P_{2860}	P_{3115}	P_{546}	P_{291}	P_{20}	P_{20}	P_{291}	P_{546}

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_{14}	P_{3090}	P_{3090}	P_{14}	P_{3265}	P_{3259}	P_{3116}	P_{3116}	P_{3259}	P_{3265}

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_{15}	P_{2834}	P_{2834}	P_{15}	P_{2993}	P_{3020}	P_{2859}	P_{2859}	P_{3020}	P_{2993}

The surface has 369 points:

The points on the surface are:

$$\begin{array}{lll}
0 : P_0 = (1, 0, 0, 0) & 9 : P_9 = (5, 1, 0, 0) & 18 : P_{18} = (14, 1, 0, 0) \\
1 : P_1 = (0, 1, 0, 0) & 10 : P_{10} = (6, 1, 0, 0) & 19 : P_{19} = (15, 1, 0, 0) \\
2 : P_2 = (0, 0, 1, 0) & 11 : P_{11} = (7, 1, 0, 0) & 20 : P_{20} = (1, 0, 1, 0) \\
3 : P_3 = (0, 0, 0, 1) & 12 : P_{12} = (8, 1, 0, 0) & 21 : P_{21} = (2, 0, 1, 0) \\
4 : P_4 = (1, 1, 1, 1) & 13 : P_{13} = (9, 1, 0, 0) & 22 : P_{22} = (3, 0, 1, 0) \\
5 : P_5 = (1, 1, 0, 0) & 14 : P_{14} = (10, 1, 0, 0) & 23 : P_{23} = (4, 0, 1, 0) \\
6 : P_6 = (2, 1, 0, 0) & 15 : P_{15} = (11, 1, 0, 0) & 24 : P_{24} = (5, 0, 1, 0) \\
7 : P_7 = (3, 1, 0, 0) & 16 : P_{16} = (12, 1, 0, 0) & 25 : P_{25} = (6, 0, 1, 0) \\
8 : P_8 = (4, 1, 0, 0) & 17 : P_{17} = (13, 1, 0, 0) & 26 : P_{26} = (7, 0, 1, 0)
\end{array}$$

27 : $P_{27} = (8, 0, 1, 0)$	81 : $P_{515} = (1, 15, 0, 1)$	135 : $P_{1089} = (0, 3, 3, 1)$
28 : $P_{28} = (9, 0, 1, 0)$	82 : $P_{530} = (0, 0, 1, 1)$	136 : $P_{1090} = (1, 3, 3, 1)$
29 : $P_{29} = (10, 0, 1, 0)$	83 : $P_{531} = (1, 0, 1, 1)$	137 : $P_{1175} = (6, 8, 3, 1)$
30 : $P_{30} = (11, 0, 1, 0)$	84 : $P_{546} = (0, 1, 1, 1)$	138 : $P_{1176} = (7, 8, 3, 1)$
31 : $P_{31} = (12, 0, 1, 0)$	85 : $P_{563} = (2, 2, 1, 1)$	139 : $P_{1189} = (4, 9, 3, 1)$
32 : $P_{32} = (13, 0, 1, 0)$	86 : $P_{564} = (3, 2, 1, 1)$	140 : $P_{1190} = (5, 9, 3, 1)$
33 : $P_{33} = (14, 0, 1, 0)$	87 : $P_{579} = (2, 3, 1, 1)$	141 : $P_{1205} = (4, 10, 3, 1)$
34 : $P_{34} = (15, 0, 1, 0)$	88 : $P_{580} = (3, 3, 1, 1)$	142 : $P_{1206} = (5, 10, 3, 1)$
35 : $P_{35} = (0, 1, 1, 0)$	89 : $P_{597} = (4, 4, 1, 1)$	143 : $P_{1223} = (6, 11, 3, 1)$
36 : $P_{36} = (1, 1, 1, 0)$	90 : $P_{598} = (5, 4, 1, 1)$	144 : $P_{1224} = (7, 11, 3, 1)$
37 : $P_{37} = (2, 1, 1, 0)$	91 : $P_{613} = (4, 5, 1, 1)$	145 : $P_{1297} = (0, 0, 4, 1)$
38 : $P_{38} = (3, 1, 1, 0)$	92 : $P_{614} = (5, 5, 1, 1)$	146 : $P_{1298} = (1, 0, 4, 1)$
39 : $P_{39} = (4, 1, 1, 0)$	93 : $P_{631} = (6, 6, 1, 1)$	147 : $P_{1317} = (4, 1, 4, 1)$
40 : $P_{40} = (5, 1, 1, 0)$	94 : $P_{632} = (7, 6, 1, 1)$	148 : $P_{1318} = (5, 1, 4, 1)$
41 : $P_{41} = (6, 1, 1, 0)$	95 : $P_{647} = (6, 7, 1, 1)$	149 : $P_{1361} = (0, 4, 4, 1)$
42 : $P_{42} = (7, 1, 1, 0)$	96 : $P_{648} = (7, 7, 1, 1)$	150 : $P_{1362} = (1, 4, 4, 1)$
43 : $P_{43} = (8, 1, 1, 0)$	97 : $P_{665} = (8, 8, 1, 1)$	151 : $P_{1381} = (4, 5, 4, 1)$
44 : $P_{44} = (9, 1, 1, 0)$	98 : $P_{666} = (9, 8, 1, 1)$	152 : $P_{1382} = (5, 5, 4, 1)$
45 : $P_{45} = (10, 1, 1, 0)$	99 : $P_{681} = (8, 9, 1, 1)$	153 : $P_{1463} = (6, 10, 4, 1)$
46 : $P_{46} = (11, 1, 1, 0)$	100 : $P_{682} = (9, 9, 1, 1)$	154 : $P_{1464} = (7, 10, 4, 1)$
47 : $P_{47} = (12, 1, 1, 0)$	101 : $P_{699} = (10, 10, 1, 1)$	155 : $P_{1475} = (2, 11, 4, 1)$
48 : $P_{48} = (13, 1, 1, 0)$	102 : $P_{700} = (11, 10, 1, 1)$	156 : $P_{1476} = (3, 11, 4, 1)$
49 : $P_{49} = (14, 1, 1, 0)$	103 : $P_{715} = (10, 11, 1, 1)$	157 : $P_{1527} = (6, 14, 4, 1)$
50 : $P_{50} = (15, 1, 1, 0)$	104 : $P_{716} = (11, 11, 1, 1)$	158 : $P_{1528} = (7, 14, 4, 1)$
51 : $P_{275} = (1, 0, 0, 1)$	105 : $P_{733} = (12, 12, 1, 1)$	159 : $P_{1539} = (2, 15, 4, 1)$
52 : $P_{290} = (0, 1, 0, 1)$	106 : $P_{734} = (13, 12, 1, 1)$	160 : $P_{1540} = (3, 15, 4, 1)$
53 : $P_{291} = (1, 1, 0, 1)$	107 : $P_{749} = (12, 13, 1, 1)$	161 : $P_{1553} = (0, 0, 5, 1)$
54 : $P_{306} = (0, 2, 0, 1)$	108 : $P_{750} = (13, 13, 1, 1)$	162 : $P_{1554} = (1, 0, 5, 1)$
55 : $P_{307} = (1, 2, 0, 1)$	109 : $P_{767} = (14, 14, 1, 1)$	163 : $P_{1573} = (4, 1, 5, 1)$
56 : $P_{322} = (0, 3, 0, 1)$	110 : $P_{768} = (15, 14, 1, 1)$	164 : $P_{1574} = (5, 1, 5, 1)$
57 : $P_{323} = (1, 3, 0, 1)$	111 : $P_{783} = (14, 15, 1, 1)$	165 : $P_{1621} = (4, 4, 5, 1)$
58 : $P_{338} = (0, 4, 0, 1)$	112 : $P_{784} = (15, 15, 1, 1)$	166 : $P_{1622} = (5, 4, 5, 1)$
59 : $P_{339} = (1, 4, 0, 1)$	113 : $P_{785} = (0, 0, 2, 1)$	167 : $P_{1633} = (0, 5, 5, 1)$
60 : $P_{354} = (0, 5, 0, 1)$	114 : $P_{786} = (1, 0, 2, 1)$	168 : $P_{1634} = (1, 5, 5, 1)$
61 : $P_{355} = (1, 5, 0, 1)$	115 : $P_{803} = (2, 1, 2, 1)$	169 : $P_{1725} = (12, 10, 5, 1)$
62 : $P_{370} = (0, 6, 0, 1)$	116 : $P_{804} = (3, 1, 2, 1)$	170 : $P_{1726} = (13, 10, 5, 1)$
63 : $P_{371} = (1, 6, 0, 1)$	117 : $P_{817} = (0, 2, 2, 1)$	171 : $P_{1737} = (8, 11, 5, 1)$
64 : $P_{386} = (0, 7, 0, 1)$	118 : $P_{818} = (1, 2, 2, 1)$	172 : $P_{1738} = (9, 11, 5, 1)$
65 : $P_{387} = (1, 7, 0, 1)$	119 : $P_{835} = (2, 3, 2, 1)$	173 : $P_{1785} = (8, 14, 5, 1)$
66 : $P_{402} = (0, 8, 0, 1)$	120 : $P_{836} = (3, 3, 2, 1)$	174 : $P_{1786} = (9, 14, 5, 1)$
67 : $P_{403} = (1, 8, 0, 1)$	121 : $P_{927} = (14, 8, 2, 1)$	175 : $P_{1805} = (12, 15, 5, 1)$
68 : $P_{418} = (0, 9, 0, 1)$	122 : $P_{928} = (15, 8, 2, 1)$	176 : $P_{1806} = (13, 15, 5, 1)$
69 : $P_{419} = (1, 9, 0, 1)$	123 : $P_{941} = (12, 9, 2, 1)$	177 : $P_{1809} = (0, 0, 6, 1)$
70 : $P_{434} = (0, 10, 0, 1)$	124 : $P_{942} = (13, 9, 2, 1)$	178 : $P_{1810} = (1, 0, 6, 1)$
71 : $P_{435} = (1, 10, 0, 1)$	125 : $P_{959} = (14, 10, 2, 1)$	179 : $P_{1831} = (6, 1, 6, 1)$
72 : $P_{450} = (0, 11, 0, 1)$	126 : $P_{960} = (15, 10, 2, 1)$	180 : $P_{1832} = (7, 1, 6, 1)$
73 : $P_{451} = (1, 11, 0, 1)$	127 : $P_{973} = (12, 11, 2, 1)$	181 : $P_{1905} = (0, 6, 6, 1)$
74 : $P_{466} = (0, 12, 0, 1)$	128 : $P_{974} = (13, 11, 2, 1)$	182 : $P_{1906} = (1, 6, 6, 1)$
75 : $P_{467} = (1, 12, 0, 1)$	129 : $P_{1041} = (0, 0, 3, 1)$	183 : $P_{1927} = (6, 7, 6, 1)$
76 : $P_{482} = (0, 13, 0, 1)$	130 : $P_{1042} = (1, 0, 3, 1)$	184 : $P_{1928} = (7, 7, 6, 1)$
77 : $P_{483} = (1, 13, 0, 1)$	131 : $P_{1059} = (2, 1, 3, 1)$	185 : $P_{1977} = (8, 10, 6, 1)$
78 : $P_{498} = (0, 14, 0, 1)$	132 : $P_{1060} = (3, 1, 3, 1)$	186 : $P_{1978} = (9, 10, 6, 1)$
79 : $P_{499} = (1, 14, 0, 1)$	133 : $P_{1075} = (2, 2, 3, 1)$	187 : $P_{1999} = (14, 11, 6, 1)$
80 : $P_{514} = (0, 15, 0, 1)$	134 : $P_{1076} = (3, 2, 3, 1)$	188 : $P_{2000} = (15, 11, 6, 1)$

189 : $P_{2009} = (8, 12, 6, 1)$	243 : $P_{2859} = (10, 1, 10, 1)$	297 : $P_{3285} = (4, 12, 11, 1)$
190 : $P_{2010} = (9, 12, 6, 1)$	244 : $P_{2860} = (11, 1, 10, 1)$	298 : $P_{3286} = (5, 12, 11, 1)$
191 : $P_{2031} = (14, 13, 6, 1)$	245 : $P_{2879} = (14, 2, 10, 1)$	299 : $P_{3311} = (14, 13, 11, 1)$
192 : $P_{2032} = (15, 13, 6, 1)$	246 : $P_{2880} = (15, 2, 10, 1)$	300 : $P_{3312} = (15, 13, 11, 1)$
193 : $P_{2065} = (0, 0, 7, 1)$	247 : $P_{2885} = (4, 3, 10, 1)$	301 : $P_{3321} = (8, 14, 11, 1)$
194 : $P_{2066} = (1, 0, 7, 1)$	248 : $P_{2886} = (5, 3, 10, 1)$	302 : $P_{3322} = (9, 14, 11, 1)$
195 : $P_{2087} = (6, 1, 7, 1)$	249 : $P_{2903} = (6, 4, 10, 1)$	303 : $P_{3331} = (2, 15, 11, 1)$
196 : $P_{2088} = (7, 1, 7, 1)$	250 : $P_{2904} = (7, 4, 10, 1)$	304 : $P_{3332} = (3, 15, 11, 1)$
197 : $P_{2167} = (6, 6, 7, 1)$	251 : $P_{2925} = (12, 5, 10, 1)$	305 : $P_{3345} = (0, 0, 12, 1)$
198 : $P_{2168} = (7, 6, 7, 1)$	252 : $P_{2926} = (13, 5, 10, 1)$	306 : $P_{3346} = (1, 0, 12, 1)$
199 : $P_{2177} = (0, 7, 7, 1)$	253 : $P_{2937} = (8, 6, 10, 1)$	307 : $P_{3373} = (12, 1, 12, 1)$
200 : $P_{2178} = (1, 7, 7, 1)$	254 : $P_{2938} = (9, 6, 10, 1)$	308 : $P_{3374} = (13, 1, 12, 1)$
201 : $P_{2227} = (2, 10, 7, 1)$	255 : $P_{2947} = (2, 7, 10, 1)$	309 : $P_{3449} = (8, 6, 12, 1)$
202 : $P_{2228} = (3, 10, 7, 1)$	256 : $P_{2948} = (3, 7, 10, 1)$	310 : $P_{3450} = (9, 6, 12, 1)$
203 : $P_{2245} = (4, 11, 7, 1)$	257 : $P_{2975} = (14, 8, 10, 1)$	311 : $P_{3461} = (4, 7, 12, 1)$
204 : $P_{2246} = (5, 11, 7, 1)$	258 : $P_{2976} = (15, 8, 10, 1)$	312 : $P_{3462} = (5, 7, 12, 1)$
205 : $P_{2261} = (4, 12, 7, 1)$	259 : $P_{2981} = (4, 9, 10, 1)$	313 : $P_{3513} = (8, 10, 12, 1)$
206 : $P_{2262} = (5, 12, 7, 1)$	260 : $P_{2982} = (5, 9, 10, 1)$	314 : $P_{3514} = (9, 10, 12, 1)$
207 : $P_{2275} = (2, 13, 7, 1)$	261 : $P_{2993} = (0, 10, 10, 1)$	315 : $P_{3525} = (4, 11, 12, 1)$
208 : $P_{2276} = (3, 13, 7, 1)$	262 : $P_{2994} = (1, 10, 10, 1)$	316 : $P_{3526} = (5, 11, 12, 1)$
209 : $P_{2321} = (0, 0, 8, 1)$	263 : $P_{3019} = (10, 11, 10, 1)$	317 : $P_{3537} = (0, 12, 12, 1)$
210 : $P_{2322} = (1, 0, 8, 1)$	264 : $P_{3020} = (11, 11, 10, 1)$	318 : $P_{3538} = (1, 12, 12, 1)$
211 : $P_{2345} = (8, 1, 8, 1)$	265 : $P_{3033} = (8, 12, 10, 1)$	319 : $P_{3565} = (12, 13, 12, 1)$
212 : $P_{2346} = (9, 1, 8, 1)$	266 : $P_{3034} = (9, 12, 10, 1)$	320 : $P_{3566} = (13, 13, 12, 1)$
213 : $P_{2367} = (14, 2, 8, 1)$	267 : $P_{3043} = (2, 13, 10, 1)$	321 : $P_{3601} = (0, 0, 13, 1)$
214 : $P_{2368} = (15, 2, 8, 1)$	268 : $P_{3044} = (3, 13, 10, 1)$	322 : $P_{3602} = (1, 0, 13, 1)$
215 : $P_{2375} = (6, 3, 8, 1)$	269 : $P_{3063} = (6, 14, 10, 1)$	323 : $P_{3629} = (12, 1, 13, 1)$
216 : $P_{2376} = (7, 3, 8, 1)$	270 : $P_{3064} = (7, 14, 10, 1)$	324 : $P_{3630} = (13, 1, 13, 1)$
217 : $P_{2449} = (0, 8, 8, 1)$	271 : $P_{3085} = (12, 15, 10, 1)$	325 : $P_{3711} = (14, 6, 13, 1)$
218 : $P_{2450} = (1, 8, 8, 1)$	272 : $P_{3086} = (13, 15, 10, 1)$	326 : $P_{3712} = (15, 6, 13, 1)$
219 : $P_{2473} = (8, 9, 8, 1)$	273 : $P_{3089} = (0, 0, 11, 1)$	327 : $P_{3715} = (2, 7, 13, 1)$
220 : $P_{2474} = (9, 9, 8, 1)$	274 : $P_{3090} = (1, 0, 11, 1)$	328 : $P_{3716} = (3, 7, 13, 1)$
221 : $P_{2495} = (14, 10, 8, 1)$	275 : $P_{3115} = (10, 1, 11, 1)$	329 : $P_{3763} = (2, 10, 13, 1)$
222 : $P_{2496} = (15, 10, 8, 1)$	276 : $P_{3116} = (11, 1, 11, 1)$	330 : $P_{3764} = (3, 10, 13, 1)$
223 : $P_{2503} = (6, 11, 8, 1)$	277 : $P_{3133} = (12, 2, 11, 1)$	331 : $P_{3791} = (14, 11, 13, 1)$
224 : $P_{2504} = (7, 11, 8, 1)$	278 : $P_{3134} = (13, 2, 11, 1)$	332 : $P_{3792} = (15, 11, 13, 1)$
225 : $P_{2577} = (0, 0, 9, 1)$	279 : $P_{3143} = (6, 3, 11, 1)$	333 : $P_{3805} = (12, 12, 13, 1)$
226 : $P_{2578} = (1, 0, 9, 1)$	280 : $P_{3144} = (7, 3, 11, 1)$	334 : $P_{3806} = (13, 12, 13, 1)$
227 : $P_{2601} = (8, 1, 9, 1)$	281 : $P_{3155} = (2, 4, 11, 1)$	335 : $P_{3809} = (0, 13, 13, 1)$
228 : $P_{2602} = (9, 1, 9, 1)$	282 : $P_{3156} = (3, 4, 11, 1)$	336 : $P_{3810} = (1, 13, 13, 1)$
229 : $P_{2621} = (12, 2, 9, 1)$	283 : $P_{3177} = (8, 5, 11, 1)$	337 : $P_{3857} = (0, 0, 14, 1)$
230 : $P_{2622} = (13, 2, 9, 1)$	284 : $P_{3178} = (9, 5, 11, 1)$	338 : $P_{3858} = (1, 0, 14, 1)$
231 : $P_{2629} = (4, 3, 9, 1)$	285 : $P_{3199} = (14, 6, 11, 1)$	339 : $P_{3887} = (14, 1, 14, 1)$
232 : $P_{2630} = (5, 3, 9, 1)$	286 : $P_{3200} = (15, 6, 11, 1)$	340 : $P_{3888} = (15, 1, 14, 1)$
233 : $P_{2713} = (8, 8, 9, 1)$	287 : $P_{3205} = (4, 7, 11, 1)$	341 : $P_{3927} = (6, 4, 14, 1)$
234 : $P_{2714} = (9, 8, 9, 1)$	288 : $P_{3206} = (5, 7, 11, 1)$	342 : $P_{3928} = (7, 4, 14, 1)$
235 : $P_{2721} = (0, 9, 9, 1)$	289 : $P_{3223} = (6, 8, 11, 1)$	343 : $P_{3945} = (8, 5, 14, 1)$
236 : $P_{2722} = (1, 9, 9, 1)$	290 : $P_{3224} = (7, 8, 11, 1)$	344 : $P_{3946} = (9, 5, 14, 1)$
237 : $P_{2741} = (4, 10, 9, 1)$	291 : $P_{3245} = (12, 9, 11, 1)$	345 : $P_{4023} = (6, 10, 14, 1)$
238 : $P_{2742} = (5, 10, 9, 1)$	292 : $P_{3246} = (13, 9, 11, 1)$	346 : $P_{4024} = (7, 10, 14, 1)$
239 : $P_{2765} = (12, 11, 9, 1)$	293 : $P_{3259} = (10, 10, 11, 1)$	347 : $P_{4041} = (8, 11, 14, 1)$
240 : $P_{2766} = (13, 11, 9, 1)$	294 : $P_{3260} = (11, 10, 11, 1)$	348 : $P_{4042} = (9, 11, 14, 1)$
241 : $P_{2833} = (0, 0, 10, 1)$	295 : $P_{3265} = (0, 11, 11, 1)$	349 : $P_{4081} = (0, 14, 14, 1)$
242 : $P_{2834} = (1, 0, 10, 1)$	296 : $P_{3266} = (1, 11, 11, 1)$	350 : $P_{4082} = (1, 14, 14, 1)$

351 : $P_{4111} = (14, 15, 14, 1)$
 352 : $P_{4112} = (15, 15, 14, 1)$
 353 : $P_{4113} = (0, 0, 15, 1)$
 354 : $P_{4114} = (1, 0, 15, 1)$
 355 : $P_{4143} = (14, 1, 15, 1)$
 356 : $P_{4144} = (15, 1, 15, 1)$
 357 : $P_{4179} = (2, 4, 15, 1)$

358 : $P_{4180} = (3, 4, 15, 1)$
 359 : $P_{4205} = (12, 5, 15, 1)$
 360 : $P_{4206} = (13, 5, 15, 1)$
 361 : $P_{4285} = (12, 10, 15, 1)$
 362 : $P_{4286} = (13, 10, 15, 1)$
 363 : $P_{4291} = (2, 11, 15, 1)$
 364 : $P_{4292} = (3, 11, 15, 1)$

365 : $P_{4351} = (14, 14, 15, 1)$
 366 : $P_{4352} = (15, 14, 15, 1)$
 367 : $P_{4353} = (0, 15, 15, 1)$
 368 : $P_{4354} = (1, 15, 15, 1)$