Rank-264 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

$$X_2^3 + X_3^3 + X_0^2X_1 + X_0^2X_2 + X_0^2X_3 + X_0X_1^2 = 0$$

(0, 0, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)
The point rank of the equation over GF(16) is 35791390

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:

$$\ell_0 = a_1 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{69889} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{69889} = \mathbf{Pl}(0,0,0,1,0,1)_{5121}$$

$$\ell_1 = a_2 = \begin{bmatrix} 1 & 0 & \delta^{11} & \delta^{11} \\ 0 & 1 & \delta^{12} & \delta^{7} \end{bmatrix}_{60448} = \begin{bmatrix} 1 & 0 & 13 & 13 \\ 0 & 1 & 3 & 7 \end{bmatrix}_{60448} = \mathbf{Pl}(6,4,1,1,13,1)_{58991}$$

$$\ell_2 = a_3 = \left[\begin{array}{cccc} 1 & 0 & \delta^{14} & \delta^{14} \\ 0 & 1 & \delta^{13} & \delta^{3} \end{array}\right]_{55826} = \left[\begin{array}{cccc} 1 & 0 & 12 & 12 \\ 0 & 1 & 6 & 8 \end{array}\right]_{55826} = \mathbf{Pl}(7,14,1,1,9,1)_{42657}$$

$$\ell_3 = a_4 = \left[\begin{array}{cccc} 1 & 0 & \delta^{13} & \delta^{13} \\ 0 & 1 & \delta^{6} & \delta^{11} \end{array}\right]_{28069} = \left[\begin{array}{cccc} 1 & 0 & 6 & 6 \\ 0 & 1 & 15 & 13 \end{array}\right]_{28069} = \mathbf{Pl}(12,2,1,1,6,1)_{30422}$$

$$\ell_4 = a_5 = \left[\begin{array}{cccc} 1 & 0 & \delta^{7} & \delta^{7} \\ 0 & 1 & \delta^{9} & \delta^{14} \end{array}\right]_{32684} = \left[\begin{array}{cccc} 1 & 0 & 7 & 7 \\ 0 & 1 & 5 & 12 \end{array}\right]_{32684} = \mathbf{Pl}(13,9,1,1,7,1)_{34503}$$

$$\ell_5 = a_6 = \left[\begin{array}{cccc} 1 & 0 & \delta^{10} & \delta^{8} \\ 0 & 1 & \delta^{7} & \delta^{12} \end{array}\right]_{63937} = \left[\begin{array}{cccc} 1 & 0 & 10 & 14 \\ 0 & 1 & 7 & 3 \end{array}\right]_{63937} = \mathbf{Pl}(3,8,4,6,4,1)_{22943}$$

$$\ell_6 = b_1 = \left[\begin{array}{cccc} 1 & 0 & \delta^{8} & \delta^{10} \\ 0 & 1 & \delta^{12} & \delta^{7} \end{array}\right]_{47617} = \left[\begin{array}{cccc} 1 & 0 & 14 & 10 \\ 0 & 1 & 3 & 7 \end{array}\right]_{47617} = \mathbf{Pl}(10,11,6,4,12,1)_{55905}$$

$$\ell_7 = b_2 = \left[\begin{array}{cccc} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \delta^{5} \end{array}\right]_{69899} = \left[\begin{array}{cccc} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 11 \end{array}\right]_{69899} = \mathbf{Pl}(0,0,0,11,0,1)_{5431}$$

$$\ell_8 = b_3 = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{array}\right]_{290} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{array}\right]_{290} = \mathbf{Pl}(1,1,1,0,1,1)_{8976}$$

$$\ell_9 = b_4 = \left[\begin{array}{cccc} 1 & 0 & \delta & \delta^{4} \\ 0 & 1 & \delta^{5} & \delta^{5} \end{array}\right]_{40045} = \left[\begin{array}{cccc} 1 & 0 & 2 & 9 \\ 0 & 1 & 11 & 11 \end{array}\right]_{40045} = \mathbf{Pl}(15,5,3,8,9,1)_{43055}$$

$$\ell_{10} = b_5 = \left[\begin{array}{cccc} 1 & 0 & \delta^{8} & \delta^{2} \\ 0 & 1 & \delta^{10} & \delta^{10} \end{array}\right]_{21464} = \left[\begin{array}{cccc} 1 & 0 & 14 & 4 \\ 0 & 1 & 10 & 10 \end{array}\right]_{21464} = \mathbf{Pl}(8,3,15,5,4,1)_{25123}$$

$$\ell_{11} = b_6 = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{array}\right]_{257} = \left[\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{array}\right]_{257} = \mathbf{Pl}(0,0,1,0,1,0)_{320}$$

$$\ell_{12} = c_{12} = \left[\begin{array}{cccc} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \delta^{10} \end{array}\right]_{69898} = \left[\begin{array}{cccc} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 10 \end{array}\right]_{69898} = \mathbf{Pl}(0,0,0,10,0,1)_{5400}$$

$$\ell_{13} = c_{13} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{array}\right]_{4385} = \left[\begin{array}{cccc} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{array}\right]_{4385} = \mathbf{Pl}(1,1,1,1,1,0)_{1250}$$

$$\ell_{14} = c_{14} = \left[\begin{array}{cccc} 1 & 0 & \delta^{4} & \delta \\ 0 & 1 & \delta^{5} & \delta^{5} \end{array}\right]_{11380} = \left[\begin{array}{cccc} 1 & 0 & 9 & 2 \\ 0 & 1 & 11 & 11 \end{array}\right]_{11380} = \mathbf{Pl}(5,15,8,3,2,1)_{15460}$$

$$\ell_{15} = c_{15} = \left[\begin{array}{cccc} 1 & 0 & \delta^{2} & \delta^{8} \\ 0 & 1 & \delta^{10} & \delta^{10} \end{array}\right]_{62414} = \left[\begin{array}{cccc} 1 & 0 & 4 & 14 \\ 0 & 1 & 10 & 10 \end{array}\right]_{62414} = \mathbf{Pl}(3,8,5,15,14,1)_{63968}$$

$$\ell_{16} = c_{16} = \left[\begin{array}{cccc} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{array}\right]_{530} = \left[\begin{array}{cccc} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{array}\right]_{530} = \mathbf{Pl}(0,0,1,1,1,1)_{9426}$$

$$\ell_{17} = c_{23} = \left[\begin{array}{cccc} 1 & 0 & \delta^{10} & \delta^{2} \\ 0 & 1 & \delta^{13} & \delta^{3} \end{array}\right]_{20336} = \left[\begin{array}{cccc} 1 & 0 & 10 & 4 \\ 0 & 1 & 6 & 8 \end{array}\right]_{20336} = \mathbf{Pl}(8,3,14,7,14,1)_{65698}$$

$$\ell_{18} = c_{24} = \left[\begin{array}{cccc} 1 & 0 & \delta^{4} & \delta^{5} \\ 0 & 1 & \delta^{6} & \delta^{11} \end{array}\right]_{50728} = \left[\begin{array}{cccc} 1 & 0 & 9 & 11 \\ 0 & 1 & 15 & 13 \end{array}\right]_{50728} = \mathbf{Pl}(11,10,12,2,7,1)_{36856}$$

$$\ell_{19} = c_{25} = \left[\begin{array}{cccc} 1 & 0 & \delta & \delta^{5} \\ 0 & 1 & \delta^{9} & \delta^{14} \end{array}\right]_{48791} = \left[\begin{array}{cccc} 1 & 0 & 2 & 11 \\ 0 & 1 & 5 & 12 \end{array}\right]_{48791} = \mathbf{Pl}(11,10,13,9,6,1)_{32971}$$

$$\ell_{20} = c_{26} = \left[\begin{array}{cccc} 1 & 0 & \delta^{11} & \delta^{11} \\ 0 & 1 & \delta^{7} & \delta^{12} \end{array}\right]_{60388} = \left[\begin{array}{cccc} 1 & 0 & 13 & 13 \\ 0 & 1 & 7 & 3 \end{array}\right]_{60388} = \mathbf{Pl}(6,4,1,1,2,1)_{14096}$$

$$\ell_{21} = c_{34} = \left[\begin{array}{cccc} 1 & 0 & \delta^{5} & \delta \\ 0 & 1 & \delta^{14} & \delta^{9} \end{array}\right]_{11831} = \left[\begin{array}{cccc} 1 & 0 & 11 & 2 \\ 0 & 1 & 12 & 5 \end{array}\right]_{11831} = \mathbf{Pl}(5,15,9,13,9,1)_{44215}$$

$$\ell_{22} = c_{35} = \left[\begin{array}{cccc} 1 & 0 & \delta^{5} & \delta^{4} \\ 0 & 1 & \delta^{11} & \delta^{6} \end{array}\right]_{42568} = \left[\begin{array}{cccc} 1 & 0 & 11 & 9 \\ 0 & 1 & 13 & 15 \end{array}\right]_{42568} = \mathbf{Pl}(15,5,2,12,2,1)_{14300}$$

$$\ell_{23} = c_{36} = \left[\begin{array}{cccc} 1 & 0 & \delta^{14} & \delta^{14} \\ 0 & 1 & \delta^{3} & \delta^{13} \end{array}\right]_{55796} = \left[\begin{array}{cccc} 1 & 0 & 12 & 12 \\ 0 & 1 & 8 & 6 \end{array}\right]_{55796} = \mathbf{Pl}(7,14,1,1,12,1)_{54912}$$

$$\ell_{24} = c_{45} = \left[\begin{array}{cccc} 1 & 0 & \delta^{2} & \delta^{10} \\ 0 & 1 & \delta^{3} & \delta^{13} \end{array}\right]_{44876} = \left[\begin{array}{cccc} 1 & 0 & 4 & 10 \\ 0 & 1 & 8 & 6 \end{array}\right]_{44876} = \mathbf{Pl}(10,11,7,14,13,1)_{60180}$$

$$\ell_{25} = c_{46} = \left[\begin{array}{cccc} 1 & 0 & \delta^{13} & \delta^{13} \\ 0 & 1 & \delta^{11} & \delta^{6} \end{array}\right]_{28099} = \left[\begin{array}{cccc} 1 & 0 & 6 & 6 \\ 0 & 1 & 13 & 15 \end{array}\right]_{28099} = \mathbf{Pl}(12,2,1,1,14,1)_{63077}$$

$$\ell_{26} = c_{56} = \left[\begin{array}{cccc} 1 & 0 & \delta^{7} & \delta^{7} \\ 0 & 1 & \delta^{14} & \delta^{9} \end{array}\right]_{32579} = \left[\begin{array}{cccc} 1 & 0 & 7 & 7 \\ 0 & 1 & 12 & 5 \end{array}\right]_{32579} = \mathbf{Pl}(13,9,1,1,4,1)_{22278}$$

Rank of lines: (69889, 60448, 55826, 28069, 32684, 63937, 47617, 69899, 290, 40045, 21464, 257, 69898, 4385, 11380, 62414, 530, 20336, 50728, 48791, 60388, 11831, 42568, 55796, 44876, 28099, 32579)
Rank of points on Klein quadric: (5121, 58991, 42657, 30422, 34503, 22943, 55905, 5431, 8976, 43055, 25123, 320, 5400, 1250, 15460, 63968, 9426, 65698, 36856, 32971, 14096, 44215, 14300, 54912, 60180, 63077, 22278)

Eckardt Points

The surface has 45 Eckardt points:
$0 : E_{12} = a_1 \cap b_2 \cap c_{12} = P_1 = \mathbf{P}(0,1,0,0) = \mathbf{P}(0,1,0,0)$,
$1 : E_{16} = a_1 \cap b_6 \cap c_{16} = P_{530} = \mathbf{P}(0,0,1,1) = \mathbf{P}(0,0,1,1)$,
$2 : E_{36} = a_3 \cap b_6 \cap c_{36} = P_{532} = \mathbf{P}(\delta,0,1,1) = \mathbf{P}(2,0,1,1)$,
$3 : E_{46} = a_4 \cap b_6 \cap c_{46} = P_{534} = \mathbf{P}(\delta^2,0,1,1) = \mathbf{P}(4,0,1,1)$,
$4 : E_{26} = a_2 \cap b_6 \cap c_{26} = P_{539} = \mathbf{P}(\delta^4,0,1,1) = \mathbf{P}(9,0,1,1)$,
$5 : E_{56} = a_5 \cap b_6 \cap c_{56} = P_{544} = \mathbf{P}(\delta^8,0,1,1) = \mathbf{P}(14,0,1,1)$,
$6 : E_{13} = a_1 \cap b_3 \cap c_{13} = P_{546} = \mathbf{P}(0,1,1,1) = \mathbf{P}(0,1,1,1)$,
$7 : E_{16,23,45} = c_{16} \cap c_{23} \cap c_{45} = P_{563} = \mathbf{P}(\delta,\delta,1,1) = \mathbf{P}(2,2,1,1)$,
$8 : E_{16,24,35} = c_{16} \cap c_{24} \cap c_{35} = P_{597} = \mathbf{P}(\delta^2,\delta^2,1,1) = \mathbf{P}(4,4,1,1)$,
$9 : E_{61} = a_6 \cap b_1 \cap c_{16} = P_{682} = \mathbf{P}(\delta^4,\delta^4,1,1) = \mathbf{P}(9,9,1,1)$,
$10 : E_{14} = a_1 \cap b_4 \cap c_{14} = P_{689} = \mathbf{P}(0,\delta^{10},1,1) = \mathbf{P}(0,10,1,1)$,
$11 : E_{15} = a_1 \cap b_5 \cap c_{15} = P_{705} = \mathbf{P}(0,\delta^5,1,1) = \mathbf{P}(0,11,1,1)$,
$12 : E_{16,25,34} = c_{16} \cap c_{25} \cap c_{34} = P_{767} = \mathbf{P}(\delta^8,\delta^8,1,1) = \mathbf{P}(14,14,1,1)$,
$13 : E_{15,26,34} = c_{15} \cap c_{26} \cap c_{34} = P_{949} = \mathbf{P}(\delta^2,\delta^{10},\delta,1) = \mathbf{P}(4,10,2,1)$,
$14 : E_{65} = a_6 \cap b_5 \cap c_{56} = P_{1013} = \mathbf{P}(\delta^2,\delta^8,\delta,1) = \mathbf{P}(4,14,2,1)$,
$15 : E_{43} = a_4 \cap b_3 \cap c_{34} = P_{1059} = \mathbf{P}(\delta,1,\delta^{12},1) = \mathbf{P}(2,1,3,1)$,
$16 : E_{13,24,56} = c_{13} \cap c_{24} \cap c_{56} = P_{1091} = \mathbf{P}(\delta,\delta^{12},\delta^{12},1) = \mathbf{P}(2,3,3,1)$,
$17 : E_{34} = a_3 \cap b_4 \cap c_{34} = P_{1338} = \mathbf{P}(\delta^4,\delta,\delta^2,1) = \mathbf{P}(9,2,4,1)$,
$18 : E_{14,23,56} = c_{14} \cap c_{23} \cap c_{56} = P_{1482} = \mathbf{P}(\delta^4,\delta^5,\delta^2,1) = \mathbf{P}(9,11,4,1)$,
$19 : E_{23} = a_2 \cap b_3 \cap c_{23} = P_{1573} = \mathbf{P}(\delta^2,1,\delta^9,1) = \mathbf{P}(4,1,5,1)$,
$20 : E_{31} = a_3 \cap b_1 \cap c_{13} = P_{1637} = \mathbf{P}(\delta^2,\delta^9,\delta^9,1) = \mathbf{P}(4,5,5,1)$,
$21 : E_{54} = a_5 \cap b_4 \cap c_{45} = P_{1941} = \mathbf{P}(\delta^2,\delta^3,\delta^{13},1) = \mathbf{P}(4,8,6,1)$,
$22 : E_{14,25,36} = c_{14} \cap c_{25} \cap c_{36} = P_{2005} = \mathbf{P}(\delta^2,\delta^{14},\delta^{13},1) = \mathbf{P}(4,12,6,1)$,
$23 : E_{41} = a_4 \cap b_1 \cap c_{14} = P_{2127} = \mathbf{P}(\delta^8,\delta^{12},\delta^7,1) = \mathbf{P}(14,3,7,1)$,
$24 : E_{24} = a_2 \cap b_4 \cap c_{24} = P_{2287} = \mathbf{P}(\delta^8,\delta^{11},\delta^7,1) = \mathbf{P}(14,13,7,1)$,
$25 : E_{53} = a_5 \cap b_3 \cap c_{35} = P_{2346} = \mathbf{P}(\delta^4,1,\delta^3,1) = \mathbf{P}(9,1,8,1)$,
$26 : E_{13,25,46} = c_{13} \cap c_{25} \cap c_{46} = P_{2458} = \mathbf{P}(\delta^4,\delta^3,\delta^3,1) = \mathbf{P}(9,8,8,1)$,
$27 : E_{15,23,46} = c_{15} \cap c_{23} \cap c_{46} = P_{2655} = \mathbf{P}(\delta^8,\delta^2,\delta^4,1) = \mathbf{P}(14,4,9,1)$,
$28 : E_{35} = a_3 \cap b_5 \cap c_{35} = P_{2751} = \mathbf{P}(\delta^8,\delta^{10},\delta^4,1) = \mathbf{P}(14,10,9,1)$,
$29 : E_{52} = a_5 \cap b_2 \cap c_{25} = P_{2865} = \mathbf{P}(0,\delta,\delta^{10},1) = \mathbf{P}(0,2,10,1)$,
$30 : E_{32} = a_3 \cap b_2 \cap c_{23} = P_{2881} = \mathbf{P}(0,\delta^{12},\delta^{10},1) = \mathbf{P}(0,3,10,1)$,
$31 : E_{62} = a_6 \cap b_2 \cap c_{26} = P_{2961} = \mathbf{P}(0,\delta^3,\delta^{10},1) = \mathbf{P}(0,8,10,1)$,
$32 : E_{42} = a_4 \cap b_2 \cap c_{24} = P_{2977} = \mathbf{P}(0,\delta^4,\delta^{10},1) = \mathbf{P}(0,9,10,1)$,
$33 : E_{12,36,45} = c_{12} \cap c_{36} \cap c_{45} = P_{3153} = \mathbf{P}(0,\delta^2,\delta^5,1) = \mathbf{P}(0,4,11,1)$,
$34 : E_{12,35,46} = c_{12} \cap c_{35} \cap c_{46} = P_{3169} = \mathbf{P}(0,\delta^9,\delta^5,1) = \mathbf{P}(0,5,11,1)$,

$35 : E_{21} = a_2 \cap b_1 \cap c_{12} = P_{3313} = \mathbf{P}(0, \delta^8, \delta^5, 1) = \mathbf{P}(0, 14, 11, 1),$
$36 : E_{12,34,56} = c_{12} \cap c_{34} \cap c_{56} = P_{3329} = \mathbf{P}(0, \delta^6, \delta^5, 1) = \mathbf{P}(0, 15, 11, 1),$
$37 : E_{25} = a_2 \cap b_5 \cap c_{25} = P_{3427} = \mathbf{P}(\delta, \delta^9, \delta^{14}, 1) = \mathbf{P}(2, 5, 12, 1),$
$38 : E_{51} = a_5 \cap b_1 \cap c_{15} = P_{3459} = \mathbf{P}(\delta, \delta^7, \delta^{14}, 1) = \mathbf{P}(2, 7, 12, 1),$
$39 : E_{45} = a_4 \cap b_5 \cap c_{45} = P_{3706} = \mathbf{P}(\delta^4, \delta^{13}, \delta^{11}, 1) = \mathbf{P}(9, 6, 13, 1),$
$40 : E_{15,24,36} = c_{15} \cap c_{24} \cap c_{36} = P_{3850} = \mathbf{P}(\delta^4, \delta^6, \delta^{11}, 1) = \mathbf{P}(9, 15, 13, 1),$
$41 : E_{14,26,35} = c_{14} \cap c_{26} \cap c_{35} = P_{4003} = \mathbf{P}(\delta, \delta^4, \delta^8, 1) = \mathbf{P}(2, 9, 14, 1),$
$42 : E_{64} = a_6 \cap b_4 \cap c_{46} = P_{4035} = \mathbf{P}(\delta, \delta^5, \delta^8, 1) = \mathbf{P}(2, 11, 14, 1),$
$43 : E_{63} = a_6 \cap b_3 \cap c_{36} = P_{4143} = \mathbf{P}(\delta^8, 1, \delta^6, 1) = \mathbf{P}(14, 1, 15, 1),$
$44 : E_{13,26,45} = c_{13} \cap c_{26} \cap c_{45} = P_{4367} = \mathbf{P}(\delta^8, \delta^6, \delta^6, 1) = \mathbf{P}(14, 15, 15, 1).$

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:

$0 : P_0 = (1, 0, 0, 0)$ lies on line b_6
$1 : P_4 = (1, 1, 1, 1)$ lies on line c_{16}
$2 : P_5 = (1, 1, 0, 0)$ lies on line c_{16}
$3 : P_{20} = (1, 0, 1, 0)$ lies on line b_3
$4 : P_{36} = (1, 1, 1, 0)$ lies on line c_{13}
$5 : P_{72} = (5, 3, 1, 0)$ lies on line b_1
$6 : P_{78} = (11, 3, 1, 0)$ lies on line b_5
$7 : P_{107} = (8, 5, 1, 0)$ lies on line c_{25}
$8 : P_{109} = (10, 5, 1, 0)$ lies on line b_4
$9 : P_{120} = (5, 6, 1, 0)$ lies on line a_2
$10 : P_{127} = (12, 6, 1, 0)$ lies on line c_{26}
$11 : P_{144} = (13, 7, 1, 0)$ lies on line a_3
$12 : P_{146} = (15, 7, 1, 0)$ lies on line c_{36}
$13 : P_{158} = (11, 8, 1, 0)$ lies on line c_{15}
$14 : P_{162} = (15, 8, 1, 0)$ lies on line c_{45}
$15 : P_{191} = (12, 10, 1, 0)$ lies on line a_6
$16 : P_{192} = (13, 10, 1, 0)$ lies on line c_{23}
$17 : P_{201} = (6, 11, 1, 0)$ lies on line c_{34}
$18 : P_{202} = (7, 11, 1, 0)$ lies on line c_{35}
$19 : P_{214} = (3, 12, 1, 0)$ lies on line a_4
$20 : P_{218} = (7, 12, 1, 0)$ lies on line c_{46}
$21 : P_{233} = (6, 13, 1, 0)$ lies on line c_{56}
$22 : P_{235} = (8, 13, 1, 0)$ lies on line a_5
$23 : P_{262} = (3, 15, 1, 0)$ lies on line c_{24}
$24 : P_{269} = (10, 15, 1, 0)$ lies on line c_{14}
$25 : P_{275} = (1, 0, 0, 1)$ lies on line c_{13}
$26 : P_{291} = (1, 1, 0, 1)$ lies on line b_3
$27 : P_{327} = (5, 3, 0, 1)$ lies on line a_6
$28 : P_{333} = (11, 3, 0, 1)$ lies on line c_{15}
$29 : P_{362} = (8, 5, 0, 1)$ lies on line c_{34}
$30 : P_{364} = (10, 5, 0, 1)$ lies on line c_{14}
$31 : P_{375} = (5, 6, 0, 1)$ lies on line c_{26}
$32 : P_{382} = (12, 6, 0, 1)$ lies on line a_2
$33 : P_{399} = (13, 7, 0, 1)$ lies on line c_{36}
$34 : P_{401} = (15, 7, 0, 1)$ lies on line a_3
$35 : P_{413} = (11, 8, 0, 1)$ lies on line b_5
$36 : P_{417} = (15, 8, 0, 1)$ lies on line c_{23}
$37 : P_{446} = (12, 10, 0, 1)$ lies on line b_1
$38 : P_{447} = (13, 10, 0, 1)$ lies on line c_{45}
$39 : P_{456} = (6, 11, 0, 1)$ lies on line c_{25}
$40 : P_{457} = (7, 11, 0, 1)$ lies on line c_{24}
$41 : P_{469} = (3, 12, 0, 1)$ lies on line c_{46}
$42 : P_{473} = (7, 12, 0, 1)$ lies on line a_4
$43 : P_{488} = (6, 13, 0, 1)$ lies on line a_5
$44 : P_{490} = (8, 13, 0, 1)$ lies on line c_{56}
$45 : P_{517} = (3, 15, 0, 1)$ lies on line c_{35}
$46 : P_{524} = (10, 15, 0, 1)$ lies on line b_4
$47 : P_{531} = (1, 0, 1, 1)$ lies on line b_6
$48 : P_{533} = (3, 0, 1, 1)$ lies on line b_6
$49 : P_{535} = (5, 0, 1, 1)$ lies on line b_6
$50 : P_{536} = (6, 0, 1, 1)$ lies on line b_6
$51 : P_{537} = (7, 0, 1, 1)$ lies on line b_6
$52 : P_{538} = (8, 0, 1, 1)$ lies on line b_6
$53 : P_{540} = (10, 0, 1, 1)$ lies on line b_6
$54 : P_{541} = (11, 0, 1, 1)$ lies on line b_6
$55 : P_{542} = (12, 0, 1, 1)$ lies on line b_6
$56 : P_{543} = (13, 0, 1, 1)$ lies on line b_6
$57 : P_{545} = (15, 0, 1, 1)$ lies on line b_6

58 : $P_{561} = (0, 2, 1, 1)$ lies on line a_1
59 : $P_{577} = (0, 3, 1, 1)$ lies on line a_1
60 : $P_{580} = (3, 3, 1, 1)$ lies on line c_{16}
61 : $P_{593} = (0, 4, 1, 1)$ lies on line a_1
62 : $P_{609} = (0, 5, 1, 1)$ lies on line a_1
63 : $P_{614} = (5, 5, 1, 1)$ lies on line c_{16}
64 : $P_{625} = (0, 6, 1, 1)$ lies on line a_1
65 : $P_{631} = (6, 6, 1, 1)$ lies on line c_{16}
66 : $P_{641} = (0, 7, 1, 1)$ lies on line a_1
67 : $P_{648} = (7, 7, 1, 1)$ lies on line c_{16}
68 : $P_{657} = (0, 8, 1, 1)$ lies on line a_1
69 : $P_{665} = (8, 8, 1, 1)$ lies on line c_{16}
70 : $P_{673} = (0, 9, 1, 1)$ lies on line a_1
71 : $P_{699} = (10, 10, 1, 1)$ lies on line c_{16}
72 : $P_{716} = (11, 11, 1, 1)$ lies on line c_{16}
73 : $P_{721} = (0, 12, 1, 1)$ lies on line a_1
74 : $P_{733} = (12, 12, 1, 1)$ lies on line c_{16}
75 : $P_{737} = (0, 13, 1, 1)$ lies on line a_1
76 : $P_{750} = (13, 13, 1, 1)$ lies on line c_{16}
77 : $P_{753} = (0, 14, 1, 1)$ lies on line a_1
78 : $P_{769} = (0, 15, 1, 1)$ lies on line a_1
79 : $P_{784} = (15, 15, 1, 1)$ lies on line c_{16}
80 : $P_{798} = (13, 0, 2, 1)$ lies on line c_{35}
81 : $P_{804} = (3, 1, 2, 1)$ lies on line b_3
82 : $P_{816} = (15, 1, 2, 1)$ lies on line c_{25}
83 : $P_{820} = (3, 2, 2, 1)$ lies on line c_{13}
84 : $P_{824} = (7, 2, 2, 1)$ lies on line c_{14}
85 : $P_{843} = (10, 3, 2, 1)$ lies on line c_{45}
86 : $P_{872} = (7, 5, 2, 1)$ lies on line b_4
87 : $P_{877} = (12, 5, 2, 1)$ lies on line c_{23}
88 : $P_{939} = (10, 9, 2, 1)$ lies on line c_{36}
89 : $P_{941} = (12, 9, 2, 1)$ lies on line a_3
90 : $P_{951} = (6, 10, 2, 1)$ lies on line a_2
91 : $P_{978} = (1, 12, 2, 1)$ lies on line c_{24}
92 : $P_{983} = (6, 12, 2, 1)$ lies on line b_1
93 : $P_{994} = (1, 13, 2, 1)$ lies on line a_4
94 : $P_{1006} = (13, 13, 2, 1)$ lies on line c_{46}
95 : $P_{1024} = (15, 14, 2, 1)$ lies on line a_5
96 : $P_{1054} = (13, 0, 3, 1)$ lies on line b_4
97 : $P_{1067} = (10, 1, 3, 1)$ lies on line c_{46}
98 : $P_{1088} = (15, 2, 3, 1)$ lies on line c_{15}
99 : $P_{1096} = (7, 3, 3, 1)$ lies on line a_5
100 : $P_{1112} = (7, 4, 3, 1)$ lies on line c_{25}
101 : $P_{1113} = (8, 4, 3, 1)$ lies on line a_6
102 : $P_{1222} = (5, 11, 3, 1)$ lies on line c_{45}
103 : $P_{1227} = (10, 11, 3, 1)$ lies on line c_{35}
104 : $P_{1236} = (3, 12, 3, 1)$ lies on line a_2
105 : $P_{1241} = (8, 12, 3, 1)$ lies on line c_{26}
106 : $P_{1262} = (13, 13, 3, 1)$ lies on line c_{14}
107 : $P_{1264} = (15, 13, 3, 1)$ lies on line b_5
108 : $P_{1266} = (1, 14, 3, 1)$ lies on line a_3
109 : $P_{1270} = (5, 14, 3, 1)$ lies on line c_{36}
110 : $P_{1282} = (1, 15, 3, 1)$ lies on line c_{23}
111 : $P_{1284} = (3, 15, 3, 1)$ lies on line b_1
112 : $P_{1304} = (7, 0, 4, 1)$ lies on line a_6
113 : $P_{1316} = (3, 1, 4, 1)$ lies on line c_{45}
114 : $P_{1318} = (5, 1, 4, 1)$ lies on line b_3
115 : $P_{1332} = (3, 2, 4, 1)$ lies on line c_{36}
116 : $P_{1366} = (5, 4, 4, 1)$ lies on line c_{13}
117 : $P_{1373} = (12, 4, 4, 1)$ lies on line b_5
118 : $P_{1388} = (11, 5, 4, 1)$ lies on line c_{24}
119 : $P_{1394} = (1, 6, 4, 1)$ lies on line b_1
120 : $P_{1406} = (13, 6, 4, 1)$ lies on line c_{25}
121 : $P_{1410} = (1, 7, 4, 1)$ lies on line a_2
122 : $P_{1416} = (7, 7, 4, 1)$ lies on line c_{26}
123 : $P_{1431} = (6, 8, 4, 1)$ lies on line c_{35}
124 : $P_{1437} = (12, 8, 4, 1)$ lies on line c_{15}
125 : $P_{1486} = (13, 11, 4, 1)$ lies on line a_5
126 : $P_{1527} = (6, 14, 4, 1)$ lies on line c_{46}
127 : $P_{1532} = (11, 14, 4, 1)$ lies on line a_4
128 : $P_{1560} = (7, 0, 5, 1)$ lies on line c_{15}
129 : $P_{1580} = (11, 1, 5, 1)$ lies on line c_{26}
130 : $P_{1586} = (1, 2, 5, 1)$ lies on line c_{46}
131 : $P_{1593} = (8, 2, 5, 1)$ lies on line a_4
132 : $P_{1602} = (1, 3, 5, 1)$ lies on line c_{35}
133 : $P_{1606} = (5, 3, 5, 1)$ lies on line c_{25}
134 : $P_{1620} = (3, 4, 5, 1)$ lies on line c_{14}
135 : $P_{1645} = (12, 5, 5, 1)$ lies on line c_{36}
136 : $P_{1654} = (5, 6, 5, 1)$ lies on line a_5
137 : $P_{1664} = (15, 6, 5, 1)$ lies on line c_{56}
138 : $P_{1668} = (3, 7, 5, 1)$ lies on line b_4
139 : $P_{1672} = (7, 7, 5, 1)$ lies on line b_5
140 : $P_{1709} = (12, 9, 5, 1)$ lies on line c_{45}
141 : $P_{1712} = (15, 9, 5, 1)$ lies on line c_{34}
142 : $P_{1721} = (8, 10, 5, 1)$ lies on line c_{24}
143 : $P_{1724} = (11, 10, 5, 1)$ lies on line a_6
144 : $P_{1820} = (11, 0, 6, 1)$ lies on line b_1
145 : $P_{1828} = (3, 1, 6, 1)$ lies on line c_{15}
146 : $P_{1832} = (7, 1, 6, 1)$ lies on line b_3
147 : $P_{1844} = (3, 2, 6, 1)$ lies on line b_5
148 : $P_{1854} = (13, 2, 6, 1)$ lies on line c_{24}
149 : $P_{1912} = (7, 6, 6, 1)$ lies on line c_{13}
150 : $P_{1915} = (10, 6, 6, 1)$ lies on line c_{23}
151 : $P_{1929} = (8, 7, 6, 1)$ lies on line c_{35}
152 : $P_{1942} = (5, 8, 6, 1)$ lies on line c_{56}
153 : $P_{1991} = (6, 11, 6, 1)$ lies on line c_{26}
154 : $P_{1996} = (11, 11, 6, 1)$ lies on line a_2
155 : $P_{2011} = (10, 12, 6, 1)$ lies on line a_3
156 : $P_{2022} = (5, 13, 6, 1)$ lies on line c_{34}
157 : $P_{2023} = (6, 13, 6, 1)$ lies on line a_6
158 : $P_{2057} = (8, 15, 6, 1)$ lies on line c_{46}
159 : $P_{2062} = (13, 15, 6, 1)$ lies on line a_4
160 : $P_{2076} = (11, 0, 7, 1)$ lies on line c_{45}
161 : $P_{2087} = (6, 1, 7, 1)$ lies on line b_3
162 : $P_{2089} = (8, 1, 7, 1)$ lies on line b_5
163 : $P_{2128} = (15, 3, 7, 1)$ lies on line c_{46}
164 : $P_{2148} = (3, 5, 7, 1)$ lies on line c_{56}
165 : $P_{2157} = (12, 5, 7, 1)$ lies on line a_5

166 : $P_{2164} = (3, 6, 7, 1)$ lies on line c_{34}
167 : $P_{2183} = (6, 7, 7, 1)$ lies on line c_{13}
168 : $P_{2187} = (10, 7, 7, 1)$ lies on line a_6
169 : $P_{2217} = (8, 9, 7, 1)$ lies on line c_{15}
170 : $P_{2221} = (12, 9, 7, 1)$ lies on line c_{25}
171 : $P_{2248} = (7, 11, 7, 1)$ lies on line a_3
172 : $P_{2252} = (11, 11, 7, 1)$ lies on line c_{36}
173 : $P_{2264} = (7, 12, 7, 1)$ lies on line c_{23}
174 : $P_{2272} = (15, 12, 7, 1)$ lies on line c_{35}
175 : $P_{2283} = (10, 13, 7, 1)$ lies on line c_{26}
176 : $P_{2333} = (12, 0, 8, 1)$ lies on line c_{14}
177 : $P_{2347} = (10, 1, 8, 1)$ lies on line c_{56}
178 : $P_{2386} = (1, 4, 8, 1)$ lies on line c_{26}
179 : $P_{2400} = (15, 4, 8, 1)$ lies on line a_2
180 : $P_{2402} = (1, 5, 8, 1)$ lies on line a_6
181 : $P_{2409} = (8, 5, 8, 1)$ lies on line c_{45}
182 : $P_{2455} = (6, 8, 8, 1)$ lies on line a_4
183 : $P_{2470} = (5, 9, 8, 1)$ lies on line b_5
184 : $P_{2507} = (10, 11, 8, 1)$ lies on line c_{34}
185 : $P_{2512} = (15, 11, 8, 1)$ lies on line b_1
186 : $P_{2518} = (5, 12, 8, 1)$ lies on line c_{15}
187 : $P_{2525} = (12, 12, 8, 1)$ lies on line b_4
188 : $P_{2532} = (3, 13, 8, 1)$ lies on line a_3
189 : $P_{2537} = (8, 13, 8, 1)$ lies on line c_{36}
190 : $P_{2548} = (3, 14, 8, 1)$ lies on line c_{23}
191 : $P_{2551} = (6, 14, 8, 1)$ lies on line c_{24}
192 : $P_{2589} = (12, 0, 9, 1)$ lies on line c_{34}
193 : $P_{2598} = (5, 1, 9, 1)$ lies on line c_{24}
194 : $P_{2601} = (8, 1, 9, 1)$ lies on line b_3
195 : $P_{2619} = (10, 2, 9, 1)$ lies on line a_2
196 : $P_{2622} = (13, 2, 9, 1)$ lies on line c_{26}
197 : $P_{2646} = (5, 4, 9, 1)$ lies on line a_4
198 : $P_{2715} = (10, 8, 9, 1)$ lies on line b_1
199 : $P_{2727} = (6, 9, 9, 1)$ lies on line b_4
200 : $P_{2729} = (8, 9, 9, 1)$ lies on line c_{13}
201 : $P_{2744} = (7, 10, 9, 1)$ lies on line c_{36}
202 : $P_{2770} = (1, 12, 9, 1)$ lies on line a_5
203 : $P_{2781} = (12, 12, 9, 1)$ lies on line c_{56}
204 : $P_{2786} = (1, 13, 9, 1)$ lies on line c_{25}
205 : $P_{2792} = (7, 13, 9, 1)$ lies on line c_{45}
206 : $P_{2823} = (6, 15, 9, 1)$ lies on line c_{14}
207 : $P_{2830} = (13, 15, 9, 1)$ lies on line a_6
208 : $P_{2833} = (0, 0, 10, 1)$ lies on line b_2
209 : $P_{2849} = (0, 1, 10, 1)$ lies on line b_2
210 : $P_{2860} = (11, 1, 10, 1)$ lies on line b_3
211 : $P_{2871} = (6, 2, 10, 1)$ lies on line c_{56}
212 : $P_{2896} = (15, 3, 10, 1)$ lies on line c_{36}
213 : $P_{2897} = (0, 4, 10, 1)$ lies on line b_2
214 : $P_{2903} = (6, 4, 10, 1)$ lies on line c_{34}
215 : $P_{2913} = (0, 5, 10, 1)$ lies on line b_2
216 : $P_{2923} = (10, 5, 10, 1)$ lies on line c_{15}
217 : $P_{2929} = (0, 6, 10, 1)$ lies on line b_2
218 : $P_{2930} = (1, 6, 10, 1)$ lies on line b_4
219 : $P_{2945} = (0, 7, 10, 1)$ lies on line b_2
220 : $P_{2946} = (1, 7, 10, 1)$ lies on line c_{14}
221 : $P_{2966} = (5, 8, 10, 1)$ lies on line a_2
222 : $P_{2984} = (7, 9, 10, 1)$ lies on line c_{46}
223 : $P_{2993} = (0, 10, 10, 1)$ lies on line b_2
224 : $P_{3004} = (11, 10, 10, 1)$ lies on line c_{13}
225 : $P_{3009} = (0, 11, 10, 1)$ lies on line b_2
226 : $P_{3025} = (0, 12, 10, 1)$ lies on line b_2
227 : $P_{3040} = (15, 12, 10, 1)$ lies on line c_{45}
228 : $P_{3041} = (0, 13, 10, 1)$ lies on line b_2
229 : $P_{3046} = (5, 13, 10, 1)$ lies on line b_1
230 : $P_{3057} = (0, 14, 10, 1)$ lies on line b_2
231 : $P_{3064} = (7, 14, 10, 1)$ lies on line c_{35}
232 : $P_{3073} = (0, 15, 10, 1)$ lies on line b_2
233 : $P_{3083} = (10, 15, 10, 1)$ lies on line b_5
234 : $P_{3089} = (0, 0, 11, 1)$ lies on line c_{12}
235 : $P_{3105} = (0, 1, 11, 1)$ lies on line c_{12}
236 : $P_{3115} = (10, 1, 11, 1)$ lies on line b_3
237 : $P_{3121} = (0, 2, 11, 1)$ lies on line c_{12}
238 : $P_{3133} = (12, 2, 11, 1)$ lies on line a_6
239 : $P_{3137} = (0, 3, 11, 1)$ lies on line c_{12}
240 : $P_{3148} = (11, 3, 11, 1)$ lies on line b_4
241 : $P_{3166} = (13, 4, 11, 1)$ lies on line a_3
242 : $P_{3172} = (3, 5, 11, 1)$ lies on line a_4
243 : $P_{3185} = (0, 6, 11, 1)$ lies on line c_{12}
244 : $P_{3188} = (3, 6, 11, 1)$ lies on line c_{24}
245 : $P_{3201} = (0, 7, 11, 1)$ lies on line c_{12}
246 : $P_{3209} = (8, 7, 11, 1)$ lies on line c_{25}
247 : $P_{3217} = (0, 8, 11, 1)$ lies on line c_{12}
248 : $P_{3228} = (11, 8, 11, 1)$ lies on line c_{14}
249 : $P_{3233} = (0, 9, 11, 1)$ lies on line c_{12}
250 : $P_{3246} = (13, 9, 11, 1)$ lies on line c_{23}
251 : $P_{3249} = (0, 10, 11, 1)$ lies on line c_{12}
252 : $P_{3265} = (0, 11, 11, 1)$ lies on line c_{12}
253 : $P_{3275} = (10, 11, 11, 1)$ lies on line c_{13}
254 : $P_{3281} = (0, 12, 11, 1)$ lies on line c_{12}
255 : $P_{3282} = (1, 12, 11, 1)$ lies on line b_5
256 : $P_{3297} = (0, 13, 11, 1)$ lies on line c_{12}
257 : $P_{3298} = (1, 13, 11, 1)$ lies on line c_{15}
258 : $P_{3325} = (12, 14, 11, 1)$ lies on line c_{26}
259 : $P_{3337} = (8, 15, 11, 1)$ lies on line a_5
260 : $P_{3355} = (10, 0, 12, 1)$ lies on line c_{24}
261 : $P_{3374} = (13, 1, 12, 1)$ lies on line b_3
262 : $P_{3376} = (15, 1, 12, 1)$ lies on line b_4
263 : $P_{3428} = (3, 5, 12, 1)$ lies on line c_{26}
264 : $P_{3444} = (3, 6, 12, 1)$ lies on line a_6
265 : $P_{3453} = (12, 6, 12, 1)$ lies on line c_{35}
266 : $P_{3468} = (11, 7, 12, 1)$ lies on line c_{56}
267 : $P_{3478} = (5, 8, 12, 1)$ lies on line a_3
268 : $P_{3479} = (6, 8, 12, 1)$ lies on line c_{36}
269 : $P_{3515} = (10, 10, 12, 1)$ lies on line a_4
270 : $P_{3517} = (12, 10, 12, 1)$ lies on line c_{46}
271 : $P_{3548} = (11, 12, 12, 1)$ lies on line c_{34}
272 : $P_{3550} = (13, 12, 12, 1)$ lies on line c_{13}
273 : $P_{3558} = (5, 13, 12, 1)$ lies on line c_{23}

274 : $P_{3575} = (6, 14, 12, 1)$ lies on line c_{45}
275 : $P_{3584} = (15, 14, 12, 1)$ lies on line c_{14}
276 : $P_{3611} = (10, 0, 13, 1)$ lies on line c_{25}
277 : $P_{3622} = (5, 1, 13, 1)$ lies on line c_{14}
278 : $P_{3629} = (12, 1, 13, 1)$ lies on line b_3
279 : $P_{3656} = (7, 3, 13, 1)$ lies on line a_2
280 : $P_{3664} = (15, 3, 13, 1)$ lies on line c_{26}
281 : $P_{3670} = (5, 4, 13, 1)$ lies on line b_4
282 : $P_{3672} = (7, 4, 13, 1)$ lies on line b_1
283 : $P_{3708} = (11, 6, 13, 1)$ lies on line c_{46}
284 : $P_{3721} = (8, 7, 13, 1)$ lies on line c_{23}
285 : $P_{3726} = (13, 7, 13, 1)$ lies on line c_{34}
286 : $P_{3771} = (10, 10, 13, 1)$ lies on line a_5
287 : $P_{3774} = (13, 10, 13, 1)$ lies on line c_{56}
288 : $P_{3808} = (15, 12, 13, 1)$ lies on line a_6
289 : $P_{3820} = (11, 13, 13, 1)$ lies on line c_{35}
290 : $P_{3821} = (12, 13, 13, 1)$ lies on line c_{13}
291 : $P_{3849} = (8, 15, 13, 1)$ lies on line a_3
292 : $P_{3863} = (6, 0, 14, 1)$ lies on line c_{23}
293 : $P_{3881} = (8, 1, 14, 1)$ lies on line b_1
294 : $P_{3888} = (15, 1, 14, 1)$ lies on line b_3
295 : $P_{3912} = (7, 3, 14, 1)$ lies on line c_{34}
296 : $P_{3918} = (13, 3, 14, 1)$ lies on line b_5
297 : $P_{3928} = (7, 4, 14, 1)$ lies on line c_{56}
298 : $P_{3932} = (11, 4, 14, 1)$ lies on line a_5
299 : $P_{3954} = (1, 6, 14, 1)$ lies on line c_{36}
300 : $P_{3959} = (6, 6, 14, 1)$ lies on line a_3
301 : $P_{3970} = (1, 7, 14, 1)$ lies on line c_{45}
302 : $P_{3981} = (12, 7, 14, 1)$ lies on line c_{24}
303 : $P_{4009} = (8, 9, 14, 1)$ lies on line a_2
304 : $P_{4045} = (12, 11, 14, 1)$ lies on line a_4
305 : $P_{4094} = (13, 14, 14, 1)$ lies on line c_{15}
306 : $P_{4096} = (15, 14, 14, 1)$ lies on line c_{13}
307 : $P_{4108} = (11, 15, 14, 1)$ lies on line c_{25}
308 : $P_{4119} = (6, 0, 15, 1)$ lies on line b_5
309 : $P_{4140} = (11, 1, 15, 1)$ lies on line a_3
310 : $P_{4150} = (5, 2, 15, 1)$ lies on line c_{35}
311 : $P_{4158} = (13, 2, 15, 1)$ lies on line b_1
312 : $P_{4215} = (6, 6, 15, 1)$ lies on line c_{15}
313 : $P_{4217} = (8, 6, 15, 1)$ lies on line c_{14}
314 : $P_{4230} = (5, 7, 15, 1)$ lies on line c_{46}
315 : $P_{4240} = (15, 7, 15, 1)$ lies on line a_4
316 : $P_{4242} = (1, 8, 15, 1)$ lies on line c_{34}
317 : $P_{4256} = (15, 8, 15, 1)$ lies on line c_{24}
318 : $P_{4258} = (1, 9, 15, 1)$ lies on line c_{56}
319 : $P_{4260} = (3, 9, 15, 1)$ lies on line a_5
320 : $P_{4276} = (3, 10, 15, 1)$ lies on line c_{25}
321 : $P_{4284} = (11, 10, 15, 1)$ lies on line c_{23}
322 : $P_{4345} = (8, 14, 15, 1)$ lies on line b_4
323 : $P_{4366} = (13, 15, 15, 1)$ lies on line a_2

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_1	P_{546}	P_{689}	P_{705}	P_{530}	P_1	P_{546}	P_{689}	P_{705}	P_{530}

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_{3313}	P_{1573}	P_{2287}	P_{3427}	P_{539}	P_{3313}	P_{1573}	P_{2287}	P_{3427}	P_{539}

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_{1637}	P_{2881}	P_{1338}	P_{2751}	P_{532}	P_{1637}	P_{2881}	P_{1338}	P_{2751}	P_{532}

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_{2127}	P_{2977}	P_{1059}	P_{3706}	P_{534}	P_{2127}	P_{2977}	P_{1059}	P_{3706}	P_{534}

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_{3459}	P_{2865}	P_{2346}	P_{1941}	P_{544}	P_{3459}	P_{2865}	P_{2346}	P_{1941}	P_{544}

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_{682}	P_{2961}	P_{4143}	P_{4035}	P_{1013}	P_{682}	P_{2961}	P_{4143}	P_{4035}	P_{1013}

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_{3313}	P_{1637}	P_{2127}	P_{3459}	P_{682}	P_{3313}	P_{1637}	P_{2127}	P_{3459}	P_{682}

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_1	P_{2881}	P_{2977}	P_{2865}	P_{2961}	P_1	P_{2881}	P_{2977}	P_{2865}	P_{2961}

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_{546}	P_{1573}	P_{1059}	P_{2346}	P_{4143}	P_{546}	P_{1573}	P_{1059}	P_{2346}	P_{4143}

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_{689}	P_{2287}	P_{1338}	P_{1941}	P_{4035}	P_{689}	P_{2287}	P_{1338}	P_{1941}	P_{4035}

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_{705}	P_{3427}	P_{2751}	P_{3706}	P_{1013}	P_{705}	P_{3427}	P_{2751}	P_{3706}	P_{1013}

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_{530}	P_{539}	P_{532}	P_{534}	P_{544}	P_{530}	P_{539}	P_{532}	P_{534}	P_{544}

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_1	P_{3313}	P_{3313}	P_1	P_{3329}	P_{3169}	P_{3153}	P_{3153}	P_{3169}	P_{3329}

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_{546}	P_{1637}	P_{1637}	P_{546}	P_{1091}	P_{2458}	P_{4367}	P_{4367}	P_{2458}	P_{1091}

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_{689}	P_{2127}	P_{2127}	P_{689}	P_{1482}	P_{2005}	P_{4003}	P_{4003}	P_{2005}	P_{1482}

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_{705}	P_{3459}	P_{3459}	P_{705}	P_{2655}	P_{3850}	P_{949}	P_{949}	P_{3850}	P_{2655}

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_{530}	P_{682}	P_{682}	P_{530}	P_{563}	P_{597}	P_{767}	P_{767}	P_{597}	P_{563}

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_{1573}	P_{2881}	P_{2881}	P_{1573}	P_{1482}	P_{2655}	P_{563}	P_{563}	P_{2655}	P_{1482}

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_{2287}	P_{2977}	P_{2977}	P_{2287}	P_{1091}	P_{3850}	P_{597}	P_{597}	P_{3850}	P_{1091}

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_{3427}	P_{2865}	P_{2865}	P_{3427}	P_{2458}	P_{2005}	P_{767}	P_{767}	P_{2005}	P_{2458}

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_{539}	P_{2961}	P_{2961}	P_{539}	P_{4367}	P_{4003}	P_{949}	P_{949}	P_{4003}	P_{4367}

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_{1338}	P_{1059}	P_{1059}	P_{1338}	P_{3329}	P_{949}	P_{767}	P_{767}	P_{949}	P_{3329}

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_{2751}	P_{2346}	P_{2346}	P_{2751}	P_{3169}	P_{4003}	P_{597}	P_{597}	P_{4003}	P_{3169}

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_{532}	P_{4143}	P_{4143}	P_{532}	P_{3153}	P_{2005}	P_{3850}	P_{3850}	P_{2005}	P_{3153}

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_{3706}	P_{1941}	P_{1941}	P_{3706}	P_{3153}	P_{4367}	P_{563}	P_{563}	P_{4367}	P_{3153}

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_{534}	P_{4035}	P_{4035}	P_{534}	P_{3169}	P_{2458}	P_{2655}	P_{2655}	P_{2458}	P_{3169}

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_{544}	P_{1013}	P_{1013}	P_{544}	P_{3329}	P_{1091}	P_{1482}	P_{1482}	P_{1091}	P_{3329}

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

$0: P_0 = (1,0,0,0)$
$1: P_1 = (0,1,0,0)$
$2: P_4 = (1,1,1,1)$
$3: P_5 = (1,1,0,0)$
$4: P_{20} = (1,0,1,0)$
$5: P_{36} = (1,1,1,0)$
$6: P_{72} = (5,3,1,0)$
$7: P_{78} = (11,3,1,0)$
$8: P_{107} = (8,5,1,0)$
$9: P_{109} = (10,5,1,0)$
$10: P_{120} = (5,6,1,0)$
$11: P_{127} = (12,6,1,0)$
$12: P_{144} = (13,7,1,0)$
$13: P_{146} = (15,7,1,0)$
$14: P_{158} = (11,8,1,0)$
$15: P_{162} = (15,8,1,0)$
$16: P_{191} = (12,10,1,0)$
$17: P_{192} = (13,10,1,0)$
$18: P_{201} = (6,11,1,0)$
$19: P_{202} = (7,11,1,0)$
$20: P_{214} = (3,12,1,0)$
$21: P_{218} = (7,12,1,0)$
$22: P_{233} = (6,13,1,0)$
$23: P_{235} = (8,13,1,0)$
$24: P_{262} = (3,15,1,0)$
$25: P_{269} = (10,15,1,0)$
$26: P_{275} = (1,0,0,1)$

27 : $P_{291} = (1, 1, 0, 1)$
28 : $P_{327} = (5, 3, 0, 1)$
29 : $P_{333} = (11, 3, 0, 1)$
30 : $P_{362} = (8, 5, 0, 1)$
31 : $P_{364} = (10, 5, 0, 1)$
32 : $P_{375} = (5, 6, 0, 1)$
33 : $P_{382} = (12, 6, 0, 1)$
34 : $P_{399} = (13, 7, 0, 1)$
35 : $P_{401} = (15, 7, 0, 1)$
36 : $P_{413} = (11, 8, 0, 1)$
37 : $P_{417} = (15, 8, 0, 1)$
38 : $P_{446} = (12, 10, 0, 1)$
39 : $P_{447} = (13, 10, 0, 1)$
40 : $P_{456} = (6, 11, 0, 1)$
41 : $P_{457} = (7, 11, 0, 1)$
42 : $P_{469} = (3, 12, 0, 1)$
43 : $P_{473} = (7, 12, 0, 1)$
44 : $P_{488} = (6, 13, 0, 1)$
45 : $P_{490} = (8, 13, 0, 1)$
46 : $P_{517} = (3, 15, 0, 1)$
47 : $P_{524} = (10, 15, 0, 1)$
48 : $P_{530} = (0, 0, 1, 1)$
49 : $P_{531} = (1, 0, 1, 1)$
50 : $P_{532} = (2, 0, 1, 1)$
51 : $P_{533} = (3, 0, 1, 1)$
52 : $P_{534} = (4, 0, 1, 1)$
53 : $P_{535} = (5, 0, 1, 1)$
54 : $P_{536} = (6, 0, 1, 1)$
55 : $P_{537} = (7, 0, 1, 1)$
56 : $P_{538} = (8, 0, 1, 1)$
57 : $P_{539} = (9, 0, 1, 1)$
58 : $P_{540} = (10, 0, 1, 1)$
59 : $P_{541} = (11, 0, 1, 1)$
60 : $P_{542} = (12, 0, 1, 1)$
61 : $P_{543} = (13, 0, 1, 1)$
62 : $P_{544} = (14, 0, 1, 1)$
63 : $P_{545} = (15, 0, 1, 1)$
64 : $P_{546} = (0, 1, 1, 1)$
65 : $P_{561} = (0, 2, 1, 1)$
66 : $P_{563} = (2, 2, 1, 1)$
67 : $P_{577} = (0, 3, 1, 1)$
68 : $P_{580} = (3, 3, 1, 1)$
69 : $P_{593} = (0, 4, 1, 1)$
70 : $P_{597} = (4, 4, 1, 1)$
71 : $P_{609} = (0, 5, 1, 1)$
72 : $P_{614} = (5, 5, 1, 1)$
73 : $P_{625} = (0, 6, 1, 1)$
74 : $P_{631} = (6, 6, 1, 1)$
75 : $P_{641} = (0, 7, 1, 1)$
76 : $P_{648} = (7, 7, 1, 1)$
77 : $P_{657} = (0, 8, 1, 1)$
78 : $P_{665} = (8, 8, 1, 1)$
79 : $P_{673} = (0, 9, 1, 1)$
80 : $P_{682} = (9, 9, 1, 1)$
81 : $P_{689} = (0, 10, 1, 1)$
82 : $P_{699} = (10, 10, 1, 1)$
83 : $P_{705} = (0, 11, 1, 1)$
84 : $P_{716} = (11, 11, 1, 1)$
85 : $P_{721} = (0, 12, 1, 1)$
86 : $P_{733} = (12, 12, 1, 1)$
87 : $P_{737} = (0, 13, 1, 1)$
88 : $P_{750} = (13, 13, 1, 1)$
89 : $P_{753} = (0, 14, 1, 1)$
90 : $P_{767} = (14, 14, 1, 1)$
91 : $P_{769} = (0, 15, 1, 1)$
92 : $P_{784} = (15, 15, 1, 1)$
93 : $P_{798} = (13, 0, 2, 1)$
94 : $P_{804} = (3, 1, 2, 1)$
95 : $P_{816} = (15, 1, 2, 1)$
96 : $P_{820} = (3, 2, 2, 1)$
97 : $P_{824} = (7, 2, 2, 1)$
98 : $P_{843} = (10, 3, 2, 1)$
99 : $P_{872} = (7, 5, 2, 1)$
100 : $P_{877} = (12, 5, 2, 1)$
101 : $P_{939} = (10, 9, 2, 1)$
102 : $P_{941} = (12, 9, 2, 1)$
103 : $P_{949} = (4, 10, 2, 1)$
104 : $P_{951} = (6, 10, 2, 1)$
105 : $P_{978} = (1, 12, 2, 1)$
106 : $P_{983} = (6, 12, 2, 1)$
107 : $P_{994} = (1, 13, 2, 1)$
108 : $P_{1006} = (13, 13, 2, 1)$
109 : $P_{1013} = (4, 14, 2, 1)$
110 : $P_{1024} = (15, 14, 2, 1)$
111 : $P_{1054} = (13, 0, 3, 1)$
112 : $P_{1059} = (2, 1, 3, 1)$
113 : $P_{1067} = (10, 1, 3, 1)$
114 : $P_{1088} = (15, 2, 3, 1)$
115 : $P_{1091} = (2, 3, 3, 1)$
116 : $P_{1096} = (7, 3, 3, 1)$
117 : $P_{1112} = (7, 4, 3, 1)$
118 : $P_{1113} = (8, 4, 3, 1)$
119 : $P_{1222} = (5, 11, 3, 1)$
120 : $P_{1227} = (10, 11, 3, 1)$
121 : $P_{1236} = (3, 12, 3, 1)$
122 : $P_{1241} = (8, 12, 3, 1)$
123 : $P_{1262} = (13, 13, 3, 1)$
124 : $P_{1264} = (15, 13, 3, 1)$
125 : $P_{1266} = (1, 14, 3, 1)$
126 : $P_{1270} = (5, 14, 3, 1)$
127 : $P_{1282} = (1, 15, 3, 1)$
128 : $P_{1284} = (3, 15, 3, 1)$
129 : $P_{1304} = (7, 0, 4, 1)$
130 : $P_{1316} = (3, 1, 4, 1)$
131 : $P_{1318} = (5, 1, 4, 1)$
132 : $P_{1332} = (3, 2, 4, 1)$
133 : $P_{1338} = (9, 2, 4, 1)$
134 : $P_{1366} = (5, 4, 4, 1)$
135 : $P_{1373} = (12, 4, 4, 1)$
136 : $P_{1388} = (11, 5, 4, 1)$
137 : $P_{1394} = (1, 6, 4, 1)$
138 : $P_{1406} = (13, 6, 4, 1)$
139 : $P_{1410} = (1, 7, 4, 1)$
140 : $P_{1416} = (7, 7, 4, 1)$
141 : $P_{1431} = (6, 8, 4, 1)$
142 : $P_{1437} = (12, 8, 4, 1)$
143 : $P_{1482} = (9, 11, 4, 1)$
144 : $P_{1486} = (13, 11, 4, 1)$
145 : $P_{1527} = (6, 14, 4, 1)$
146 : $P_{1532} = (11, 14, 4, 1)$
147 : $P_{1560} = (7, 0, 5, 1)$
148 : $P_{1573} = (4, 1, 5, 1)$
149 : $P_{1580} = (11, 1, 5, 1)$
150 : $P_{1586} = (1, 2, 5, 1)$
151 : $P_{1593} = (8, 2, 5, 1)$
152 : $P_{1602} = (1, 3, 5, 1)$
153 : $P_{1606} = (5, 3, 5, 1)$
154 : $P_{1620} = (3, 4, 5, 1)$
155 : $P_{1637} = (4, 5, 5, 1)$
156 : $P_{1645} = (12, 5, 5, 1)$
157 : $P_{1654} = (5, 6, 5, 1)$
158 : $P_{1664} = (15, 6, 5, 1)$
159 : $P_{1668} = (3, 7, 5, 1)$
160 : $P_{1672} = (7, 7, 5, 1)$
161 : $P_{1709} = (12, 9, 5, 1)$
162 : $P_{1712} = (15, 9, 5, 1)$
163 : $P_{1721} = (8, 10, 5, 1)$
164 : $P_{1724} = (11, 10, 5, 1)$
165 : $P_{1820} = (11, 0, 6, 1)$
166 : $P_{1828} = (3, 1, 6, 1)$
167 : $P_{1832} = (7, 1, 6, 1)$
168 : $P_{1844} = (3, 2, 6, 1)$
169 : $P_{1854} = (13, 2, 6, 1)$
170 : $P_{1912} = (7, 6, 6, 1)$
171 : $P_{1915} = (10, 6, 6, 1)$
172 : $P_{1929} = (8, 7, 6, 1)$
173 : $P_{1941} = (4, 8, 6, 1)$
174 : $P_{1942} = (5, 8, 6, 1)$
175 : $P_{1991} = (6, 11, 6, 1)$
176 : $P_{1996} = (11, 11, 6, 1)$
177 : $P_{2005} = (4, 12, 6, 1)$
178 : $P_{2011} = (10, 12, 6, 1)$
179 : $P_{2022} = (5, 13, 6, 1)$
180 : $P_{2023} = (6, 13, 6, 1)$
181 : $P_{2057} = (8, 15, 6, 1)$
182 : $P_{2062} = (13, 15, 6, 1)$
183 : $P_{2076} = (11, 0, 7, 1)$
184 : $P_{2087} = (6, 1, 7, 1)$
185 : $P_{2089} = (8, 1, 7, 1)$
186 : $P_{2127} = (14, 3, 7, 1)$
187 : $P_{2128} = (15, 3, 7, 1)$
188 : $P_{2148} = (3, 5, 7, 1)$

189 : $P_{2157} = (12, 5, 7, 1)$
190 : $P_{2164} = (3, 6, 7, 1)$
191 : $P_{2183} = (6, 7, 7, 1)$
192 : $P_{2187} = (10, 7, 7, 1)$
193 : $P_{2217} = (8, 9, 7, 1)$
194 : $P_{2221} = (12, 9, 7, 1)$
195 : $P_{2248} = (7, 11, 7, 1)$
196 : $P_{2252} = (11, 11, 7, 1)$
197 : $P_{2264} = (7, 12, 7, 1)$
198 : $P_{2272} = (15, 12, 7, 1)$
199 : $P_{2283} = (10, 13, 7, 1)$
200 : $P_{2287} = (14, 13, 7, 1)$
201 : $P_{2333} = (12, 0, 8, 1)$
202 : $P_{2346} = (9, 1, 8, 1)$
203 : $P_{2347} = (10, 1, 8, 1)$
204 : $P_{2386} = (1, 4, 8, 1)$
205 : $P_{2400} = (15, 4, 8, 1)$
206 : $P_{2402} = (1, 5, 8, 1)$
207 : $P_{2409} = (8, 5, 8, 1)$
208 : $P_{2455} = (6, 8, 8, 1)$
209 : $P_{2458} = (9, 8, 8, 1)$
210 : $P_{2470} = (5, 9, 8, 1)$
211 : $P_{2507} = (10, 11, 8, 1)$
212 : $P_{2512} = (15, 11, 8, 1)$
213 : $P_{2518} = (5, 12, 8, 1)$
214 : $P_{2525} = (12, 12, 8, 1)$
215 : $P_{2532} = (3, 13, 8, 1)$
216 : $P_{2537} = (8, 13, 8, 1)$
217 : $P_{2548} = (3, 14, 8, 1)$
218 : $P_{2551} = (6, 14, 8, 1)$
219 : $P_{2589} = (12, 0, 9, 1)$
220 : $P_{2598} = (5, 1, 9, 1)$
221 : $P_{2601} = (8, 1, 9, 1)$
222 : $P_{2619} = (10, 2, 9, 1)$
223 : $P_{2622} = (13, 2, 9, 1)$
224 : $P_{2646} = (5, 4, 9, 1)$
225 : $P_{2655} = (14, 4, 9, 1)$
226 : $P_{2715} = (10, 8, 9, 1)$
227 : $P_{2727} = (6, 9, 9, 1)$
228 : $P_{2729} = (8, 9, 9, 1)$
229 : $P_{2744} = (7, 10, 9, 1)$
230 : $P_{2751} = (14, 10, 9, 1)$
231 : $P_{2770} = (1, 12, 9, 1)$
232 : $P_{2781} = (12, 12, 9, 1)$
233 : $P_{2786} = (1, 13, 9, 1)$
234 : $P_{2792} = (7, 13, 9, 1)$
235 : $P_{2823} = (6, 15, 9, 1)$
236 : $P_{2830} = (13, 15, 9, 1)$
237 : $P_{2833} = (0, 0, 10, 1)$
238 : $P_{2849} = (0, 1, 10, 1)$
239 : $P_{2860} = (11, 1, 10, 1)$
240 : $P_{2865} = (0, 2, 10, 1)$
241 : $P_{2871} = (6, 2, 10, 1)$
242 : $P_{2881} = (0, 3, 10, 1)$
243 : $P_{2896} = (15, 3, 10, 1)$
244 : $P_{2897} = (0, 4, 10, 1)$
245 : $P_{2903} = (6, 4, 10, 1)$
246 : $P_{2913} = (0, 5, 10, 1)$
247 : $P_{2923} = (10, 5, 10, 1)$
248 : $P_{2929} = (0, 6, 10, 1)$
249 : $P_{2930} = (1, 6, 10, 1)$
250 : $P_{2945} = (0, 7, 10, 1)$
251 : $P_{2946} = (1, 7, 10, 1)$
252 : $P_{2961} = (0, 8, 10, 1)$
253 : $P_{2966} = (5, 8, 10, 1)$
254 : $P_{2977} = (0, 9, 10, 1)$
255 : $P_{2984} = (7, 9, 10, 1)$
256 : $P_{2993} = (0, 10, 10, 1)$
257 : $P_{3004} = (11, 10, 10, 1)$
258 : $P_{3009} = (0, 11, 10, 1)$
259 : $P_{3025} = (0, 12, 10, 1)$
260 : $P_{3040} = (15, 12, 10, 1)$
261 : $P_{3041} = (0, 13, 10, 1)$
262 : $P_{3046} = (5, 13, 10, 1)$
263 : $P_{3057} = (0, 14, 10, 1)$
264 : $P_{3064} = (7, 14, 10, 1)$
265 : $P_{3073} = (0, 15, 10, 1)$
266 : $P_{3083} = (10, 15, 10, 1)$
267 : $P_{3089} = (0, 0, 11, 1)$
268 : $P_{3105} = (0, 1, 11, 1)$
269 : $P_{3115} = (10, 1, 11, 1)$
270 : $P_{3121} = (0, 2, 11, 1)$
271 : $P_{3133} = (12, 2, 11, 1)$
272 : $P_{3137} = (0, 3, 11, 1)$
273 : $P_{3148} = (11, 3, 11, 1)$
274 : $P_{3153} = (0, 4, 11, 1)$
275 : $P_{3166} = (13, 4, 11, 1)$
276 : $P_{3169} = (0, 5, 11, 1)$
277 : $P_{3172} = (3, 5, 11, 1)$
278 : $P_{3185} = (0, 6, 11, 1)$
279 : $P_{3188} = (3, 6, 11, 1)$
280 : $P_{3201} = (0, 7, 11, 1)$
281 : $P_{3209} = (8, 7, 11, 1)$
282 : $P_{3217} = (0, 8, 11, 1)$
283 : $P_{3228} = (11, 8, 11, 1)$
284 : $P_{3233} = (0, 9, 11, 1)$
285 : $P_{3246} = (13, 9, 11, 1)$
286 : $P_{3249} = (0, 10, 11, 1)$
287 : $P_{3265} = (0, 11, 11, 1)$
288 : $P_{3275} = (10, 11, 11, 1)$
289 : $P_{3281} = (0, 12, 11, 1)$
290 : $P_{3282} = (1, 12, 11, 1)$
291 : $P_{3297} = (0, 13, 11, 1)$
292 : $P_{3298} = (1, 13, 11, 1)$
293 : $P_{3313} = (0, 14, 11, 1)$
294 : $P_{3325} = (12, 14, 11, 1)$
295 : $P_{3329} = (0, 15, 11, 1)$
296 : $P_{3337} = (8, 15, 11, 1)$
297 : $P_{3355} = (10, 0, 12, 1)$
298 : $P_{3374} = (13, 1, 12, 1)$
299 : $P_{3376} = (15, 1, 12, 1)$
300 : $P_{3427} = (2, 5, 12, 1)$
301 : $P_{3428} = (3, 5, 12, 1)$
302 : $P_{3444} = (3, 6, 12, 1)$
303 : $P_{3453} = (12, 6, 12, 1)$
304 : $P_{3459} = (2, 7, 12, 1)$
305 : $P_{3468} = (11, 7, 12, 1)$
306 : $P_{3478} = (5, 8, 12, 1)$
307 : $P_{3479} = (6, 8, 12, 1)$
308 : $P_{3515} = (10, 10, 12, 1)$
309 : $P_{3517} = (12, 10, 12, 1)$
310 : $P_{3548} = (11, 12, 12, 1)$
311 : $P_{3550} = (13, 12, 12, 1)$
312 : $P_{3558} = (5, 13, 12, 1)$
313 : $P_{3575} = (6, 14, 12, 1)$
314 : $P_{3584} = (15, 14, 12, 1)$
315 : $P_{3611} = (10, 0, 13, 1)$
316 : $P_{3622} = (5, 1, 13, 1)$
317 : $P_{3629} = (12, 1, 13, 1)$
318 : $P_{3656} = (7, 3, 13, 1)$
319 : $P_{3664} = (15, 3, 13, 1)$
320 : $P_{3670} = (5, 4, 13, 1)$
321 : $P_{3672} = (7, 4, 13, 1)$
322 : $P_{3706} = (9, 6, 13, 1)$
323 : $P_{3708} = (11, 6, 13, 1)$
324 : $P_{3721} = (8, 7, 13, 1)$
325 : $P_{3726} = (13, 7, 13, 1)$
326 : $P_{3771} = (10, 10, 13, 1)$
327 : $P_{3774} = (13, 10, 13, 1)$
328 : $P_{3808} = (15, 12, 13, 1)$
329 : $P_{3820} = (11, 13, 13, 1)$
330 : $P_{3821} = (12, 13, 13, 1)$
331 : $P_{3849} = (8, 15, 13, 1)$
332 : $P_{3850} = (9, 15, 13, 1)$
333 : $P_{3863} = (6, 0, 14, 1)$
334 : $P_{3881} = (8, 1, 14, 1)$
335 : $P_{3888} = (15, 1, 14, 1)$
336 : $P_{3912} = (7, 3, 14, 1)$
337 : $P_{3918} = (13, 3, 14, 1)$
338 : $P_{3928} = (7, 4, 14, 1)$
339 : $P_{3932} = (11, 4, 14, 1)$
340 : $P_{3954} = (1, 6, 14, 1)$
341 : $P_{3959} = (6, 6, 14, 1)$
342 : $P_{3970} = (1, 7, 14, 1)$
343 : $P_{3981} = (12, 7, 14, 1)$
344 : $P_{4003} = (2, 9, 14, 1)$
345 : $P_{4009} = (8, 9, 14, 1)$
346 : $P_{4035} = (2, 11, 14, 1)$
347 : $P_{4045} = (12, 11, 14, 1)$
348 : $P_{4094} = (13, 14, 14, 1)$
349 : $P_{4096} = (15, 14, 14, 1)$
350 : $P_{4108} = (11, 15, 14, 1)$

$351: P_{4119} = (6, 0, 15, 1)$
$352: P_{4140} = (11, 1, 15, 1)$
$353: P_{4143} = (14, 1, 15, 1)$
$354: P_{4150} = (5, 2, 15, 1)$
$355: P_{4158} = (13, 2, 15, 1)$
$356: P_{4215} = (6, 6, 15, 1)$
$357: P_{4217} = (8, 6, 15, 1)$
$358: P_{4230} = (5, 7, 15, 1)$
$359: P_{4240} = (15, 7, 15, 1)$
$360: P_{4242} = (1, 8, 15, 1)$
$361: P_{4256} = (15, 8, 15, 1)$
$362: P_{4258} = (1, 9, 15, 1)$
$363: P_{4260} = (3, 9, 15, 1)$
$364: P_{4276} = (3, 10, 15, 1)$
$365: P_{4284} = (11, 10, 15, 1)$
$366: P_{4345} = (8, 14, 15, 1)$
$367: P_{4366} = (13, 15, 15, 1)$
$368: P_{4367} = (14, 15, 15, 1)$