

Rank-65562 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

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

(1, 1, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(32) is 1109428294

General information

Number of lines	22
Number of points	705
Number of singular points	1
Number of Eckardt points	0
Number of double points	0
Number of single points	704
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^{22}
Type of lines on points	$22, 1^{704}$

Singular Points

The surface has 1 singular points:

$$0 : P_3 = \mathbf{P}(0, 0, 0, 1) = \mathbf{P}(0, 0, 0, 1)$$

The 22 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array} \right]_{34880} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array} \right]_{34880} = \mathbf{Pl}(0, 1, 0, 0, 1, 0)_{1121}$$

$$\begin{aligned}
\ell_1 &= \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082433} = \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082433} = \mathbf{Pl}(0, 1, 0, 1, 0, 0)_{97} \\
\ell_2 &= \begin{bmatrix} 1 & \eta^{16} & \eta^{28} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{773723} = \begin{bmatrix} 1 & 27 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{773723} = \mathbf{Pl}(0, 22, 0, 27, 1, 0)_{4796} \\
\ell_3 &= \begin{bmatrix} 1 & \eta^9 & \eta^{21} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{840314} = \begin{bmatrix} 1 & 26 & 24 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{840314} = \mathbf{Pl}(0, 24, 0, 26, 1, 0)_{4735} \\
\ell_4 &= \begin{bmatrix} 1 & \eta^4 & \eta^{16} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{931216} = \begin{bmatrix} 1 & 16 & 27 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{931216} = \mathbf{Pl}(0, 27, 0, 16, 1, 0)_{4108} \\
\ell_5 &= \begin{bmatrix} 1 & \eta & \eta^{29} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{307586} = \begin{bmatrix} 1 & 2 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{307586} = \mathbf{Pl}(0, 9, 0, 2, 1, 0)_{3208} \\
\ell_6 &= \begin{bmatrix} 1 & \eta^2 & \eta^{27} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{377348} = \begin{bmatrix} 1 & 4 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{377348} = \mathbf{Pl}(0, 11, 0, 4, 1, 0)_{3336} \\
\ell_7 &= \begin{bmatrix} 1 & \eta^4 & \eta^{23} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{525328} = \begin{bmatrix} 1 & 16 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{525328} = \mathbf{Pl}(0, 15, 0, 16, 1, 0)_{4096} \\
\ell_8 &= \begin{bmatrix} 1 & \eta^{16} & \eta^{30} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{638427} = \begin{bmatrix} 1 & 27 & 18 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{638427} = \mathbf{Pl}(0, 18, 0, 27, 1, 0)_{4792} \\
\ell_9 &= \begin{bmatrix} 1 & \eta & \eta^{25} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{848770} = \begin{bmatrix} 1 & 2 & 25 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{848770} = \mathbf{Pl}(0, 25, 0, 2, 1, 0)_{3224} \\
\ell_{10} &= \begin{bmatrix} 1 & \eta^{18} & \eta^{11} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{240995} = \begin{bmatrix} 1 & 3 & 7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{240995} = \mathbf{Pl}(0, 7, 0, 3, 1, 0)_{3269} \\
\ell_{11} &= \begin{bmatrix} 1 & \eta^8 & \eta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{82445} = \begin{bmatrix} 1 & 13 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{82445} = \mathbf{Pl}(0, 2, 0, 13, 1, 0)_{3894} \\
\ell_{12} &= \begin{bmatrix} 1 & \eta^{10} & \eta^{13} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{966097} = \begin{bmatrix} 1 & 17 & 28 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{966097} = \mathbf{Pl}(0, 28, 0, 17, 1, 0)_{4172} \\
\ell_{13} &= \begin{bmatrix} 1 & \eta & \eta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{544354} = \begin{bmatrix} 1 & 2 & 16 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{544354} = \mathbf{Pl}(0, 16, 0, 2, 1, 0)_{3215} \\
\ell_{14} &= \begin{bmatrix} 1 & \eta^4 & \eta^7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{694448} = \begin{bmatrix} 1 & 16 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{694448} = \mathbf{Pl}(0, 20, 0, 16, 1, 0)_{4101} \\
\ell_{15} &= \begin{bmatrix} 1 & \eta^{20} & \eta^{26} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{791692} = \begin{bmatrix} 1 & 12 & 23 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{791692} = \mathbf{Pl}(0, 23, 0, 12, 1, 0)_{3852} \\
\ell_{16} &= \begin{bmatrix} 1 & \eta^2 & \eta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{444996} = \begin{bmatrix} 1 & 4 & 13 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{444996} = \mathbf{Pl}(0, 13, 0, 4, 1, 0)_{3338} \\
\ell_{17} &= \begin{bmatrix} 1 & \eta^8 & \eta^{14} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{995693} = \begin{bmatrix} 1 & 13 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{995693} = \mathbf{Pl}(0, 29, 0, 13, 1, 0)_{3921} \\
\ell_{18} &= \begin{bmatrix} 1 & \eta^{16} & \eta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{164891} = \begin{bmatrix} 1 & 27 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{164891} = \mathbf{Pl}(0, 4, 0, 27, 1, 0)_{4778} \\
\ell_{19} &= \begin{bmatrix} 1 & \eta^2 & \eta^{19} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{208228} = \begin{bmatrix} 1 & 4 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{208228} = \mathbf{Pl}(0, 6, 0, 4, 1, 0)_{3331} \\
\ell_{20} &= \begin{bmatrix} 1 & \eta^5 & \eta^{22} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{716645} = \begin{bmatrix} 1 & 5 & 21 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{716645} = \mathbf{Pl}(0, 21, 0, 5, 1, 0)_{3409} \\
\ell_{21} &= \begin{bmatrix} 1 & \eta^8 & \eta^{15} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1063341} = \begin{bmatrix} 1 & 13 & 31 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1063341} = \mathbf{Pl}(0, 31, 0, 13, 1, 0)_{3923}
\end{aligned}$$

Rank of lines: (34880, 1082433, 773723, 840314, 931216, 307586, 377348, 525328, 638427, 848770, 240995, 82445, 966097, 544354, 694448, 791692, 444996, 995693, 164891, 208228, 716645, 1063341)
Rank of points on Klein quadric: (1121, 97, 4796, 4735, 4108, 3208, 3336, 4096, 4792, 3224, 3269, 3894, 4172, 3215, 4101, 3852, 3338, 3921, 4778, 3331, 3409, 3923)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 0 Double points:

The double points on the surface are:

Single Points

The surface has 704 single points:

The single points on the surface are:

- | | |
|---|---|
| 0 : $P_{36} = (1, 0, 1, 0)$ lies on line ℓ_0 | 31 : $P_{2731} = (10, 20, 1, 1)$ lies on line ℓ_9 |
| 1 : $P_{67} = (0, 1, 1, 0)$ lies on line ℓ_1 | 32 : $P_{2733} = (12, 20, 1, 1)$ lies on line ℓ_{10} |
| 2 : $P_{235} = (8, 6, 1, 0)$ lies on line ℓ_2 | 33 : $P_{2739} = (18, 20, 1, 1)$ lies on line ℓ_{11} |
| 3 : $P_{244} = (17, 6, 1, 0)$ lies on line ℓ_3 | 34 : $P_{2788} = (3, 22, 1, 1)$ lies on line ℓ_{12} |
| 4 : $P_{258} = (31, 6, 1, 0)$ lies on line ℓ_4 | 35 : $P_{2796} = (11, 22, 1, 1)$ lies on line ℓ_{13} |
| 5 : $P_{295} = (4, 8, 1, 0)$ lies on line ℓ_5 | 36 : $P_{2815} = (30, 22, 1, 1)$ lies on line ℓ_{14} |
| 6 : $P_{371} = (16, 10, 1, 0)$ lies on line ℓ_6 | 37 : $P_{2886} = (5, 25, 1, 1)$ lies on line ℓ_{15} |
| 7 : $P_{496} = (13, 14, 1, 0)$ lies on line ℓ_7 | 38 : $P_{2896} = (15, 25, 1, 1)$ lies on line ℓ_{16} |
| 8 : $P_{645} = (2, 19, 1, 0)$ lies on line ℓ_8 | 39 : $P_{2900} = (19, 25, 1, 1)$ lies on line ℓ_{17} |
| 9 : $P_{685} = (10, 20, 1, 0)$ lies on line ℓ_9 | 40 : $P_{3018} = (9, 29, 1, 1)$ lies on line ℓ_{18} |
| 10 : $P_{687} = (12, 20, 1, 0)$ lies on line ℓ_{10} | 41 : $P_{3023} = (14, 29, 1, 1)$ lies on line ℓ_{19} |
| 11 : $P_{693} = (18, 20, 1, 0)$ lies on line ℓ_{11} | 42 : $P_{3035} = (26, 29, 1, 1)$ lies on line ℓ_{20} |
| 12 : $P_{742} = (3, 22, 1, 0)$ lies on line ℓ_{12} | 43 : $P_{3068} = (27, 30, 1, 1)$ lies on line ℓ_{21} |
| 13 : $P_{750} = (11, 22, 1, 0)$ lies on line ℓ_{13} | 44 : $P_{3107} = (2, 0, 2, 1)$ lies on line ℓ_0 |
| 14 : $P_{769} = (30, 22, 1, 0)$ lies on line ℓ_{14} | 45 : $P_{3169} = (0, 2, 2, 1)$ lies on line ℓ_1 |
| 15 : $P_{840} = (5, 25, 1, 0)$ lies on line ℓ_{15} | 46 : $P_{3205} = (4, 3, 2, 1)$ lies on line ℓ_8 |
| 16 : $P_{850} = (15, 25, 1, 0)$ lies on line ℓ_{16} | 47 : $P_{3399} = (6, 9, 2, 1)$ lies on line ℓ_{12} |
| 17 : $P_{854} = (19, 25, 1, 0)$ lies on line ℓ_{17} | 48 : $P_{3415} = (22, 9, 2, 1)$ lies on line ℓ_{13} |
| 18 : $P_{972} = (9, 29, 1, 0)$ lies on line ℓ_{18} | 49 : $P_{3418} = (25, 9, 2, 1)$ lies on line ℓ_{14} |
| 19 : $P_{977} = (14, 29, 1, 0)$ lies on line ℓ_{19} | 50 : $P_{3496} = (7, 12, 2, 1)$ lies on line ℓ_3 |
| 20 : $P_{989} = (26, 29, 1, 0)$ lies on line ℓ_{20} | 51 : $P_{3505} = (16, 12, 2, 1)$ lies on line ℓ_2 |
| 21 : $P_{1022} = (27, 30, 1, 0)$ lies on line ℓ_{21} | 52 : $P_{3516} = (27, 12, 2, 1)$ lies on line ℓ_4 |
| 22 : $P_{2083} = (1, 0, 1, 1)$ lies on line ℓ_0 | 53 : $P_{3522} = (1, 13, 2, 1)$ lies on line ℓ_{11} |
| 23 : $P_{2114} = (0, 1, 1, 1)$ lies on line ℓ_1 | 54 : $P_{3541} = (20, 13, 2, 1)$ lies on line ℓ_9 |
| 24 : $P_{2281} = (8, 6, 1, 1)$ lies on line ℓ_2 | 55 : $P_{3545} = (24, 13, 2, 1)$ lies on line ℓ_{10} |
| 25 : $P_{2290} = (17, 6, 1, 1)$ lies on line ℓ_3 | 56 : $P_{3625} = (8, 16, 2, 1)$ lies on line ℓ_5 |
| 26 : $P_{2304} = (31, 6, 1, 1)$ lies on line ℓ_4 | 57 : $P_{3750} = (5, 20, 2, 1)$ lies on line ℓ_6 |
| 27 : $P_{2341} = (4, 8, 1, 1)$ lies on line ℓ_5 | 58 : $P_{3844} = (3, 23, 2, 1)$ lies on line ℓ_{17} |
| 28 : $P_{2417} = (16, 10, 1, 1)$ lies on line ℓ_6 | 59 : $P_{3851} = (10, 23, 2, 1)$ lies on line ℓ_{15} |
| 29 : $P_{2542} = (13, 14, 1, 1)$ lies on line ℓ_7 | 60 : $P_{3871} = (30, 23, 2, 1)$ lies on line ℓ_{16} |
| 30 : $P_{2691} = (2, 19, 1, 1)$ lies on line ℓ_8 | 61 : $P_{3924} = (19, 25, 2, 1)$ lies on line ℓ_{21} |

62 : $P_{4027} = (26, 28, 2, 1)$ lies on line ℓ_7
 63 : $P_{4114} = (17, 31, 2, 1)$ lies on line ℓ_{20}
 64 : $P_{4115} = (18, 31, 2, 1)$ lies on line ℓ_{18}
 65 : $P_{4125} = (28, 31, 2, 1)$ lies on line ℓ_{19}
 66 : $P_{4132} = (3, 0, 3, 1)$ lies on line ℓ_0
 67 : $P_{4204} = (11, 2, 3, 1)$ lies on line ℓ_{20}
 68 : $P_{4211} = (18, 2, 3, 1)$ lies on line ℓ_{19}
 69 : $P_{4220} = (27, 2, 3, 1)$ lies on line ℓ_{18}
 70 : $P_{4225} = (0, 3, 3, 1)$ lies on line ℓ_1
 71 : $P_{4361} = (8, 7, 3, 1)$ lies on line ℓ_{21}
 72 : $P_{4453} = (4, 10, 3, 1)$ lies on line ℓ_4
 73 : $P_{4471} = (22, 10, 3, 1)$ lies on line ℓ_3
 74 : $P_{4473} = (24, 10, 3, 1)$ lies on line ℓ_2
 75 : $P_{4592} = (15, 14, 3, 1)$ lies on line ℓ_{15}
 76 : $P_{4593} = (16, 14, 3, 1)$ lies on line ℓ_{17}
 77 : $P_{4594} = (17, 14, 3, 1)$ lies on line ℓ_{16}
 78 : $P_{4647} = (6, 16, 3, 1)$ lies on line ℓ_8
 79 : $P_{4728} = (23, 18, 3, 1)$ lies on line ℓ_7
 80 : $P_{4909} = (12, 24, 3, 1)$ lies on line ℓ_5
 81 : $P_{4948} = (19, 25, 3, 1)$ lies on line ℓ_{11}
 82 : $P_{4949} = (20, 25, 3, 1)$ lies on line ℓ_{10}
 83 : $P_{4959} = (30, 25, 3, 1)$ lies on line ℓ_9
 84 : $P_{5110} = (21, 30, 3, 1)$ lies on line ℓ_6
 85 : $P_{5126} = (5, 31, 3, 1)$ lies on line ℓ_{12}
 86 : $P_{5128} = (7, 31, 3, 1)$ lies on line ℓ_{14}
 87 : $P_{5150} = (29, 31, 3, 1)$ lies on line ℓ_{13}
 88 : $P_{5157} = (4, 0, 4, 1)$ lies on line ℓ_0
 89 : $P_{5281} = (0, 4, 4, 1)$ lies on line ℓ_1
 90 : $P_{5329} = (16, 5, 4, 1)$ lies on line ℓ_5
 91 : $P_{5353} = (8, 6, 4, 1)$ lies on line ℓ_8
 92 : $P_{5511} = (6, 11, 4, 1)$ lies on line ℓ_{17}
 93 : $P_{5525} = (20, 11, 4, 1)$ lies on line ℓ_{15}
 94 : $P_{5530} = (25, 11, 4, 1)$ lies on line ℓ_{16}
 95 : $P_{5579} = (10, 13, 4, 1)$ lies on line ℓ_6
 96 : $P_{5738} = (9, 18, 4, 1)$ lies on line ℓ_{13}
 97 : $P_{5741} = (12, 18, 4, 1)$ lies on line ℓ_{12}
 98 : $P_{5752} = (23, 18, 4, 1)$ lies on line ℓ_{14}
 99 : $P_{5892} = (3, 23, 4, 1)$ lies on line ℓ_{21}
 100 : $P_{5926} = (5, 24, 4, 1)$ lies on line ℓ_2
 101 : $P_{5935} = (14, 24, 4, 1)$ lies on line ℓ_3
 102 : $P_{5940} = (19, 24, 4, 1)$ lies on line ℓ_4
 103 : $P_{5987} = (2, 26, 4, 1)$ lies on line ℓ_{11}
 104 : $P_{5998} = (13, 26, 4, 1)$ lies on line ℓ_9
 105 : $P_{6006} = (21, 26, 4, 1)$ lies on line ℓ_{10}
 106 : $P_{6018} = (1, 27, 4, 1)$ lies on line ℓ_{18}
 107 : $P_{6024} = (7, 27, 4, 1)$ lies on line ℓ_{20}
 108 : $P_{6046} = (29, 27, 4, 1)$ lies on line ℓ_{19}
 109 : $P_{6098} = (17, 29, 4, 1)$ lies on line ℓ_7
 110 : $P_{6182} = (5, 0, 5, 1)$ lies on line ℓ_0
 111 : $P_{6307} = (2, 4, 5, 1)$ lies on line ℓ_{13}
 112 : $P_{6314} = (9, 4, 5, 1)$ lies on line ℓ_{14}
 113 : $P_{6320} = (15, 4, 5, 1)$ lies on line ℓ_{12}
 114 : $P_{6337} = (0, 5, 5, 1)$ lies on line ℓ_1
 115 : $P_{6377} = (8, 6, 5, 1)$ lies on line ℓ_{18}

116 : $P_{6388} = (19, 6, 5, 1)$ lies on line ℓ_{19}
 117 : $P_{6398} = (29, 6, 5, 1)$ lies on line ℓ_{20}
 118 : $P_{6427} = (26, 7, 5, 1)$ lies on line ℓ_6
 119 : $P_{6489} = (24, 9, 5, 1)$ lies on line ℓ_{21}
 120 : $P_{6613} = (20, 13, 5, 1)$ lies on line ℓ_5
 121 : $P_{6632} = (7, 14, 5, 1)$ lies on line ℓ_9
 122 : $P_{6641} = (16, 14, 5, 1)$ lies on line ℓ_{11}
 123 : $P_{6650} = (25, 14, 5, 1)$ lies on line ℓ_{10}
 124 : $P_{6770} = (17, 18, 5, 1)$ lies on line ℓ_{15}
 125 : $P_{6774} = (21, 18, 5, 1)$ lies on line ℓ_{17}
 126 : $P_{6775} = (22, 18, 5, 1)$ lies on line ℓ_{16}
 127 : $P_{6813} = (28, 19, 5, 1)$ lies on line ℓ_7
 128 : $P_{6859} = (10, 21, 5, 1)$ lies on line ℓ_8
 129 : $P_{7149} = (12, 30, 5, 1)$ lies on line ℓ_4
 130 : $P_{7150} = (13, 30, 5, 1)$ lies on line ℓ_2
 131 : $P_{7168} = (31, 30, 5, 1)$ lies on line ℓ_3
 132 : $P_{7207} = (6, 0, 6, 1)$ lies on line ℓ_0
 133 : $P_{7244} = (11, 1, 6, 1)$ lies on line ℓ_7
 134 : $P_{7330} = (1, 4, 6, 1)$ lies on line ℓ_{19}
 135 : $P_{7348} = (19, 4, 6, 1)$ lies on line ℓ_{18}
 136 : $P_{7351} = (22, 4, 6, 1)$ lies on line ℓ_{20}
 137 : $P_{7373} = (12, 5, 6, 1)$ lies on line ℓ_8
 138 : $P_{7393} = (0, 6, 6, 1)$ lies on line ℓ_1
 139 : $P_{7665} = (16, 14, 6, 1)$ lies on line ℓ_{21}
 140 : $P_{7849} = (8, 20, 6, 1)$ lies on line ℓ_4
 141 : $P_{7850} = (9, 20, 6, 1)$ lies on line ℓ_3
 142 : $P_{7862} = (21, 20, 6, 1)$ lies on line ℓ_2
 143 : $P_{7897} = (24, 21, 6, 1)$ lies on line ℓ_5
 144 : $P_{7940} = (3, 23, 6, 1)$ lies on line ℓ_{11}
 145 : $P_{7950} = (13, 23, 6, 1)$ lies on line ℓ_{10}
 146 : $P_{7962} = (25, 23, 6, 1)$ lies on line ℓ_9
 147 : $P_{8016} = (15, 25, 6, 1)$ lies on line ℓ_6
 148 : $P_{8075} = (10, 27, 6, 1)$ lies on line ℓ_{12}
 149 : $P_{8079} = (14, 27, 6, 1)$ lies on line ℓ_{14}
 150 : $P_{8096} = (31, 27, 6, 1)$ lies on line ℓ_{13}
 151 : $P_{8102} = (5, 28, 6, 1)$ lies on line ℓ_{17}
 152 : $P_{8104} = (7, 28, 6, 1)$ lies on line ℓ_{16}
 153 : $P_{8127} = (30, 28, 6, 1)$ lies on line ℓ_{15}
 154 : $P_{8232} = (7, 0, 7, 1)$ lies on line ℓ_0
 155 : $P_{8322} = (1, 3, 7, 1)$ lies on line ℓ_{10}
 156 : $P_{8338} = (17, 3, 7, 1)$ lies on line ℓ_{11}
 157 : $P_{8340} = (19, 3, 7, 1)$ lies on line ℓ_9
 158 : $P_{8393} = (8, 5, 7, 1)$ lies on line ℓ_{16}
 159 : $P_{8407} = (22, 5, 7, 1)$ lies on line ℓ_{17}
 160 : $P_{8412} = (27, 5, 7, 1)$ lies on line ℓ_{15}
 161 : $P_{8449} = (0, 7, 7, 1)$ lies on line ℓ_1
 162 : $P_{8650} = (9, 13, 7, 1)$ lies on line ℓ_{12}
 163 : $P_{8657} = (16, 13, 7, 1)$ lies on line ℓ_{14}
 164 : $P_{8661} = (20, 13, 7, 1)$ lies on line ℓ_{13}
 165 : $P_{8711} = (6, 15, 7, 1)$ lies on line ℓ_7
 166 : $P_{8748} = (11, 16, 7, 1)$ lies on line ℓ_{21}
 167 : $P_{8824} = (23, 18, 7, 1)$ lies on line ℓ_4
 168 : $P_{8825} = (24, 18, 7, 1)$ lies on line ℓ_3
 169 : $P_{8830} = (29, 18, 7, 1)$ lies on line ℓ_2

170 : $P_{8864} = (31, 19, 7, 1)$ lies on line ℓ_6
 171 : $P_{8943} = (14, 22, 7, 1)$ lies on line ℓ_8
 172 : $P_{9037} = (12, 25, 7, 1)$ lies on line ℓ_{20}
 173 : $P_{9040} = (15, 25, 7, 1)$ lies on line ℓ_{19}
 174 : $P_{9051} = (26, 25, 7, 1)$ lies on line ℓ_{18}
 175 : $P_{9181} = (28, 29, 7, 1)$ lies on line ℓ_5
 176 : $P_{9257} = (8, 0, 8, 1)$ lies on line ℓ_0
 177 : $P_{9292} = (11, 1, 8, 1)$ lies on line ℓ_{14}
 178 : $P_{9299} = (18, 1, 8, 1)$ lies on line ℓ_{13}
 179 : $P_{9305} = (24, 1, 8, 1)$ lies on line ℓ_{12}
 180 : $P_{9505} = (0, 8, 8, 1)$ lies on line ℓ_1
 181 : $P_{9574} = (5, 10, 8, 1)$ lies on line ℓ_5
 182 : $P_{9607} = (6, 11, 8, 1)$ lies on line ℓ_{21}
 183 : $P_{9649} = (16, 12, 8, 1)$ lies on line ℓ_8
 184 : $P_{9797} = (4, 17, 8, 1)$ lies on line ℓ_{11}
 185 : $P_{9808} = (15, 17, 8, 1)$ lies on line ℓ_{10}
 186 : $P_{9819} = (26, 17, 8, 1)$ lies on line ℓ_9
 187 : $P_{9859} = (2, 19, 8, 1)$ lies on line ℓ_{18}
 188 : $P_{9871} = (14, 19, 8, 1)$ lies on line ℓ_{20}
 189 : $P_{9888} = (31, 19, 8, 1)$ lies on line ℓ_{19}
 190 : $P_{9924} = (3, 21, 8, 1)$ lies on line ℓ_4
 191 : $P_{9931} = (10, 21, 8, 1)$ lies on line ℓ_2
 192 : $P_{9949} = (28, 21, 8, 1)$ lies on line ℓ_3
 193 : $P_{9965} = (12, 22, 8, 1)$ lies on line ℓ_{17}
 194 : $P_{9966} = (13, 22, 8, 1)$ lies on line ℓ_{15}
 195 : $P_{9976} = (23, 22, 8, 1)$ lies on line ℓ_{16}
 196 : $P_{10101} = (20, 26, 8, 1)$ lies on line ℓ_6
 197 : $P_{10248} = (7, 31, 8, 1)$ lies on line ℓ_7
 198 : $P_{10282} = (9, 0, 9, 1)$ lies on line ℓ_0
 199 : $P_{10338} = (1, 2, 9, 1)$ lies on line ℓ_5
 200 : $P_{10436} = (3, 5, 9, 1)$ lies on line ℓ_{10}
 201 : $P_{10449} = (16, 5, 9, 1)$ lies on line ℓ_9
 202 : $P_{10455} = (22, 5, 9, 1)$ lies on line ℓ_{11}
 203 : $P_{10561} = (0, 9, 9, 1)$ lies on line ℓ_1
 204 : $P_{10732} = (11, 14, 9, 1)$ lies on line ℓ_{18}
 205 : $P_{10738} = (17, 14, 9, 1)$ lies on line ℓ_{19}
 206 : $P_{10741} = (20, 14, 9, 1)$ lies on line ℓ_{20}
 207 : $P_{10761} = (8, 15, 9, 1)$ lies on line ℓ_{15}
 208 : $P_{10777} = (24, 15, 9, 1)$ lies on line ℓ_{16}
 209 : $P_{10784} = (31, 15, 9, 1)$ lies on line ℓ_{17}
 210 : $P_{10789} = (4, 16, 9, 1)$ lies on line ℓ_6
 211 : $P_{10827} = (10, 17, 9, 1)$ lies on line ℓ_7
 212 : $P_{10883} = (2, 19, 9, 1)$ lies on line ℓ_2
 213 : $P_{10894} = (13, 19, 9, 1)$ lies on line ℓ_3
 214 : $P_{10909} = (28, 19, 9, 1)$ lies on line ℓ_4
 215 : $P_{10974} = (29, 21, 9, 1)$ lies on line ℓ_{21}
 216 : $P_{11030} = (21, 23, 9, 1)$ lies on line ℓ_{14}
 217 : $P_{11034} = (25, 23, 9, 1)$ lies on line ℓ_{13}
 218 : $P_{11036} = (27, 23, 9, 1)$ lies on line ℓ_{12}
 219 : $P_{11283} = (18, 31, 9, 1)$ lies on line ℓ_8
 220 : $P_{11307} = (10, 0, 10, 1)$ lies on line ℓ_0
 221 : $P_{11336} = (7, 1, 10, 1)$ lies on line ℓ_{15}
 222 : $P_{11338} = (9, 1, 10, 1)$ lies on line ℓ_{16}
 223 : $P_{11344} = (15, 1, 10, 1)$ lies on line ℓ_{17}

224 : $P_{11422} = (29, 3, 10, 1)$ lies on line ℓ_7
 225 : $P_{11557} = (4, 8, 10, 1)$ lies on line ℓ_{13}
 226 : $P_{11571} = (18, 8, 10, 1)$ lies on line ℓ_{14}
 227 : $P_{11583} = (30, 8, 10, 1)$ lies on line ℓ_{12}
 228 : $P_{11617} = (0, 10, 10, 1)$ lies on line ℓ_1
 229 : $P_{11684} = (3, 12, 10, 1)$ lies on line ℓ_{19}
 230 : $P_{11697} = (16, 12, 10, 1)$ lies on line ℓ_{18}
 231 : $P_{11712} = (31, 12, 10, 1)$ lies on line ℓ_{20}
 232 : $P_{11762} = (17, 14, 10, 1)$ lies on line ℓ_6
 233 : $P_{11797} = (20, 15, 10, 1)$ lies on line ℓ_8
 234 : $P_{11894} = (21, 18, 10, 1)$ lies on line ℓ_{21}
 235 : $P_{12121} = (24, 25, 10, 1)$ lies on line ℓ_4
 236 : $P_{12123} = (26, 25, 10, 1)$ lies on line ℓ_2
 237 : $P_{12124} = (27, 25, 10, 1)$ lies on line ℓ_3
 238 : $P_{12142} = (13, 26, 10, 1)$ lies on line ℓ_5
 239 : $P_{12198} = (5, 28, 10, 1)$ lies on line ℓ_{11}
 240 : $P_{12207} = (14, 28, 10, 1)$ lies on line ℓ_9
 241 : $P_{12216} = (23, 28, 10, 1)$ lies on line ℓ_{10}
 242 : $P_{12332} = (11, 0, 11, 1)$ lies on line ℓ_0
 243 : $P_{12450} = (1, 4, 11, 1)$ lies on line ℓ_6
 244 : $P_{12581} = (4, 8, 11, 1)$ lies on line ℓ_9
 245 : $P_{12600} = (23, 8, 11, 1)$ lies on line ℓ_{11}
 246 : $P_{12604} = (27, 8, 11, 1)$ lies on line ℓ_{10}
 247 : $P_{12673} = (0, 11, 11, 1)$ lies on line ℓ_1
 248 : $P_{12719} = (14, 12, 11, 1)$ lies on line ℓ_{21}
 249 : $P_{12753} = (16, 13, 11, 1)$ lies on line ℓ_7
 250 : $P_{12870} = (5, 17, 11, 1)$ lies on line ℓ_{20}
 251 : $P_{12878} = (13, 17, 11, 1)$ lies on line ℓ_{19}
 252 : $P_{12890} = (25, 17, 11, 1)$ lies on line ℓ_{18}
 253 : $P_{12906} = (9, 18, 11, 1)$ lies on line ℓ_5
 254 : $P_{13091} = (2, 24, 11, 1)$ lies on line ℓ_{15}
 255 : $P_{13095} = (6, 24, 11, 1)$ lies on line ℓ_{16}
 256 : $P_{13117} = (28, 24, 11, 1)$ lies on line ℓ_{17}
 257 : $P_{13239} = (22, 28, 11, 1)$ lies on line ℓ_8
 258 : $P_{13293} = (12, 30, 11, 1)$ lies on line ℓ_{14}
 259 : $P_{13296} = (15, 30, 11, 1)$ lies on line ℓ_{13}
 260 : $P_{13310} = (29, 30, 11, 1)$ lies on line ℓ_{12}
 261 : $P_{13320} = (7, 31, 11, 1)$ lies on line ℓ_4
 262 : $P_{13323} = (10, 31, 11, 1)$ lies on line ℓ_3
 263 : $P_{13331} = (18, 31, 11, 1)$ lies on line ℓ_2
 264 : $P_{13357} = (12, 0, 12, 1)$ lies on line ℓ_0
 265 : $P_{13431} = (22, 2, 12, 1)$ lies on line ℓ_7
 266 : $P_{13603} = (2, 8, 12, 1)$ lies on line ℓ_{19}
 267 : $P_{13604} = (3, 8, 12, 1)$ lies on line ℓ_{18}
 268 : $P_{13610} = (9, 8, 12, 1)$ lies on line ℓ_{20}
 269 : $P_{13689} = (24, 10, 12, 1)$ lies on line ℓ_8
 270 : $P_{13703} = (6, 11, 12, 1)$ lies on line ℓ_{11}
 271 : $P_{13720} = (23, 11, 12, 1)$ lies on line ℓ_9
 272 : $P_{13723} = (26, 11, 12, 1)$ lies on line ℓ_{10}
 273 : $P_{13729} = (0, 12, 12, 1)$ lies on line ℓ_1
 274 : $P_{13776} = (15, 13, 12, 1)$ lies on line ℓ_2
 275 : $P_{13777} = (16, 13, 12, 1)$ lies on line ℓ_4
 276 : $P_{13779} = (18, 13, 12, 1)$ lies on line ℓ_3
 277 : $P_{13846} = (21, 15, 12, 1)$ lies on line ℓ_5

278 : $P_{13973} = (20, 19, 12, 1)$ lies on line ℓ_{12}
 279 : $P_{13980} = (27, 19, 12, 1)$ lies on line ℓ_{13}
 280 : $P_{13981} = (28, 19, 12, 1)$ lies on line ℓ_{14}
 281 : $P_{14111} = (30, 23, 12, 1)$ lies on line ℓ_6
 282 : $P_{14246} = (5, 28, 12, 1)$ lies on line ℓ_{21}
 283 : $P_{14283} = (10, 29, 12, 1)$ lies on line ℓ_{17}
 284 : $P_{14287} = (14, 29, 12, 1)$ lies on line ℓ_{16}
 285 : $P_{14298} = (25, 29, 12, 1)$ lies on line ℓ_{15}
 286 : $P_{14382} = (13, 0, 13, 1)$ lies on line ℓ_0
 287 : $P_{14463} = (30, 2, 13, 1)$ lies on line ℓ_{21}
 288 : $P_{14498} = (1, 4, 13, 1)$ lies on line ℓ_{16}
 289 : $P_{14522} = (25, 4, 13, 1)$ lies on line ℓ_{17}
 290 : $P_{14525} = (28, 4, 13, 1)$ lies on line ℓ_{15}
 291 : $P_{14531} = (2, 5, 13, 1)$ lies on line ℓ_{14}
 292 : $P_{14545} = (16, 5, 13, 1)$ lies on line ℓ_{13}
 293 : $P_{14552} = (23, 5, 13, 1)$ lies on line ℓ_{12}
 294 : $P_{14610} = (17, 7, 13, 1)$ lies on line ℓ_5
 295 : $P_{14724} = (3, 11, 13, 1)$ lies on line ℓ_3
 296 : $P_{14728} = (7, 11, 13, 1)$ lies on line ℓ_2
 297 : $P_{14736} = (15, 11, 13, 1)$ lies on line ℓ_4
 298 : $P_{14780} = (27, 12, 13, 1)$ lies on line ℓ_7
 299 : $P_{14785} = (0, 13, 13, 1)$ lies on line ℓ_1
 300 : $P_{15051} = (10, 21, 13, 1)$ lies on line ℓ_{18}
 301 : $P_{15053} = (12, 21, 13, 1)$ lies on line ℓ_{19}
 302 : $P_{15060} = (19, 21, 13, 1)$ lies on line ℓ_{20}
 303 : $P_{15195} = (26, 25, 13, 1)$ lies on line ℓ_8
 304 : $P_{15311} = (14, 29, 13, 1)$ lies on line ℓ_6
 305 : $P_{15381} = (20, 31, 13, 1)$ lies on line ℓ_{11}
 306 : $P_{15383} = (22, 31, 13, 1)$ lies on line ℓ_{10}
 307 : $P_{15390} = (29, 31, 13, 1)$ lies on line ℓ_9
 308 : $P_{15407} = (14, 0, 14, 1)$ lies on line ℓ_0
 309 : $P_{15436} = (11, 1, 14, 1)$ lies on line ℓ_4
 310 : $P_{15446} = (21, 1, 14, 1)$ lies on line ℓ_3
 311 : $P_{15456} = (31, 1, 14, 1)$ lies on line ℓ_2
 312 : $P_{15516} = (27, 3, 14, 1)$ lies on line ℓ_6
 313 : $P_{15575} = (22, 5, 14, 1)$ lies on line ℓ_{21}
 314 : $P_{15587} = (2, 6, 14, 1)$ lies on line ℓ_{10}
 315 : $P_{15588} = (3, 6, 14, 1)$ lies on line ℓ_9
 316 : $P_{15592} = (7, 6, 14, 1)$ lies on line ℓ_{11}
 317 : $P_{15709} = (28, 9, 14, 1)$ lies on line ℓ_8
 318 : $P_{15722} = (9, 10, 14, 1)$ lies on line ℓ_{17}
 319 : $P_{15729} = (16, 10, 14, 1)$ lies on line ℓ_{16}
 320 : $P_{15732} = (19, 10, 14, 1)$ lies on line ℓ_{15}
 321 : $P_{15841} = (0, 14, 14, 1)$ lies on line ℓ_1
 322 : $P_{16146} = (17, 23, 14, 1)$ lies on line ℓ_{18}
 323 : $P_{16153} = (24, 23, 14, 1)$ lies on line ℓ_{20}
 324 : $P_{16159} = (30, 23, 14, 1)$ lies on line ℓ_{19}
 325 : $P_{16230} = (5, 26, 14, 1)$ lies on line ℓ_{14}
 326 : $P_{16238} = (13, 26, 14, 1)$ lies on line ℓ_{13}
 327 : $P_{16243} = (18, 26, 14, 1)$ lies on line ℓ_{12}
 328 : $P_{16365} = (12, 30, 14, 1)$ lies on line ℓ_7
 329 : $P_{16414} = (29, 31, 14, 1)$ lies on line ℓ_5
 330 : $P_{16432} = (15, 0, 15, 1)$ lies on line ℓ_0
 331 : $P_{16645} = (4, 7, 15, 1)$ lies on line ℓ_3
 332 : $P_{16661} = (20, 7, 15, 1)$ lies on line ℓ_4
 333 : $P_{16664} = (23, 7, 15, 1)$ lies on line ℓ_2
 334 : $P_{16716} = (11, 9, 15, 1)$ lies on line ℓ_6
 335 : $P_{16739} = (2, 10, 15, 1)$ lies on line ℓ_{20}
 336 : $P_{16753} = (16, 10, 15, 1)$ lies on line ℓ_{19}
 337 : $P_{16761} = (24, 10, 15, 1)$ lies on line ℓ_{18}
 338 : $P_{16807} = (6, 12, 15, 1)$ lies on line ℓ_{13}
 339 : $P_{16818} = (17, 12, 15, 1)$ lies on line ℓ_{12}
 340 : $P_{16828} = (27, 12, 15, 1)$ lies on line ℓ_{14}
 341 : $P_{16897} = (0, 15, 15, 1)$ lies on line ℓ_1
 342 : $P_{16930} = (1, 16, 15, 1)$ lies on line ℓ_7
 343 : $P_{17002} = (9, 18, 15, 1)$ lies on line ℓ_9
 344 : $P_{17007} = (14, 18, 15, 1)$ lies on line ℓ_{10}
 345 : $P_{17014} = (21, 18, 15, 1)$ lies on line ℓ_{11}
 346 : $P_{17047} = (22, 19, 15, 1)$ lies on line ℓ_{15}
 347 : $P_{17051} = (26, 19, 15, 1)$ lies on line ℓ_{17}
 348 : $P_{17056} = (31, 19, 15, 1)$ lies on line ℓ_{16}
 349 : $P_{17178} = (25, 23, 15, 1)$ lies on line ℓ_5
 350 : $P_{17279} = (30, 26, 15, 1)$ lies on line ℓ_8
 351 : $P_{17294} = (13, 27, 15, 1)$ lies on line ℓ_{21}
 352 : $P_{17457} = (16, 0, 16, 1)$ lies on line ℓ_0
 353 : $P_{17506} = (1, 2, 16, 1)$ lies on line ℓ_{13}
 354 : $P_{17526} = (21, 2, 16, 1)$ lies on line ℓ_{12}
 355 : $P_{17527} = (22, 2, 16, 1)$ lies on line ℓ_{14}
 356 : $P_{17541} = (4, 3, 16, 1)$ lies on line ℓ_{18}
 357 : $P_{17564} = (27, 3, 16, 1)$ lies on line ℓ_{19}
 358 : $P_{17565} = (28, 3, 16, 1)$ lies on line ℓ_{20}
 359 : $P_{17673} = (8, 7, 16, 1)$ lies on line ℓ_{11}
 360 : $P_{17682} = (17, 7, 16, 1)$ lies on line ℓ_9
 361 : $P_{17695} = (30, 7, 16, 1)$ lies on line ℓ_{10}
 362 : $P_{17740} = (11, 9, 16, 1)$ lies on line ℓ_{16}
 363 : $P_{17753} = (24, 9, 16, 1)$ lies on line ℓ_{17}
 364 : $P_{17755} = (26, 9, 16, 1)$ lies on line ℓ_{15}
 365 : $P_{17927} = (6, 15, 16, 1)$ lies on line ℓ_4
 366 : $P_{17941} = (20, 15, 16, 1)$ lies on line ℓ_2
 367 : $P_{17950} = (29, 15, 16, 1)$ lies on line ℓ_3
 368 : $P_{17953} = (0, 16, 16, 1)$ lies on line ℓ_1
 369 : $P_{17998} = (13, 17, 16, 1)$ lies on line ℓ_6
 370 : $P_{18091} = (10, 20, 16, 1)$ lies on line ℓ_5
 371 : $P_{18157} = (12, 22, 16, 1)$ lies on line ℓ_{21}
 372 : $P_{18214} = (5, 24, 16, 1)$ lies on line ℓ_8
 373 : $P_{18319} = (14, 27, 16, 1)$ lies on line ℓ_7
 374 : $P_{18482} = (17, 0, 17, 1)$ lies on line ℓ_0
 375 : $P_{18744} = (23, 8, 17, 1)$ lies on line ℓ_{21}
 376 : $P_{18765} = (12, 9, 17, 1)$ lies on line ℓ_3
 377 : $P_{18778} = (25, 9, 17, 1)$ lies on line ℓ_4
 378 : $P_{18781} = (28, 9, 17, 1)$ lies on line ℓ_2
 379 : $P_{18824} = (7, 11, 17, 1)$ lies on line ℓ_8
 380 : $P_{18981} = (4, 16, 17, 1)$ lies on line ℓ_{16}
 381 : $P_{18988} = (11, 16, 17, 1)$ lies on line ℓ_{17}
 382 : $P_{19008} = (31, 16, 17, 1)$ lies on line ℓ_{15}
 383 : $P_{19009} = (0, 17, 17, 1)$ lies on line ℓ_1
 384 : $P_{19091} = (18, 19, 17, 1)$ lies on line ℓ_{10}
 385 : $P_{19099} = (26, 19, 17, 1)$ lies on line ℓ_{11}

386 : $P_{19100} = (27, 19, 17, 1)$ lies on line ℓ_9
 387 : $P_{19113} = (8, 20, 17, 1)$ lies on line ℓ_{14}
 388 : $P_{19115} = (10, 20, 17, 1)$ lies on line ℓ_{13}
 389 : $P_{19127} = (22, 20, 17, 1)$ lies on line ℓ_{12}
 390 : $P_{19140} = (3, 21, 17, 1)$ lies on line ℓ_7
 391 : $P_{19358} = (29, 27, 17, 1)$ lies on line ℓ_6
 392 : $P_{19375} = (14, 28, 17, 1)$ lies on line ℓ_5
 393 : $P_{19431} = (6, 30, 17, 1)$ lies on line ℓ_{20}
 394 : $P_{19438} = (13, 30, 17, 1)$ lies on line ℓ_{18}
 395 : $P_{19446} = (21, 30, 17, 1)$ lies on line ℓ_{19}
 396 : $P_{19507} = (18, 0, 18, 1)$ lies on line ℓ_0
 397 : $P_{19589} = (4, 3, 18, 1)$ lies on line ℓ_2
 398 : $P_{19611} = (26, 3, 18, 1)$ lies on line ℓ_3
 399 : $P_{19614} = (29, 3, 18, 1)$ lies on line ℓ_4
 400 : $P_{19619} = (2, 4, 18, 1)$ lies on line ℓ_5
 401 : $P_{19657} = (8, 5, 18, 1)$ lies on line ℓ_6
 402 : $P_{19733} = (20, 7, 18, 1)$ lies on line ℓ_7
 403 : $P_{19814} = (5, 10, 18, 1)$ lies on line ℓ_9
 404 : $P_{19815} = (6, 10, 18, 1)$ lies on line ℓ_{10}
 405 : $P_{19818} = (9, 10, 18, 1)$ lies on line ℓ_{11}
 406 : $P_{19856} = (15, 11, 18, 1)$ lies on line ℓ_{14}
 407 : $P_{19860} = (19, 11, 18, 1)$ lies on line ℓ_{12}
 408 : $P_{19864} = (23, 11, 18, 1)$ lies on line ℓ_{13}
 409 : $P_{20000} = (31, 15, 18, 1)$ lies on line ℓ_{21}
 410 : $P_{20065} = (0, 18, 18, 1)$ lies on line ℓ_1
 411 : $P_{20354} = (1, 27, 18, 1)$ lies on line ℓ_8
 412 : $P_{20392} = (7, 28, 18, 1)$ lies on line ℓ_{19}
 413 : $P_{20398} = (13, 28, 18, 1)$ lies on line ℓ_{20}
 414 : $P_{20407} = (22, 28, 18, 1)$ lies on line ℓ_{18}
 415 : $P_{20465} = (16, 30, 18, 1)$ lies on line ℓ_{15}
 416 : $P_{20470} = (21, 30, 18, 1)$ lies on line ℓ_{16}
 417 : $P_{20476} = (27, 30, 18, 1)$ lies on line ℓ_{17}
 418 : $P_{20532} = (19, 0, 19, 1)$ lies on line ℓ_0
 419 : $P_{20554} = (9, 1, 19, 1)$ lies on line ℓ_{19}
 420 : $P_{20568} = (23, 1, 19, 1)$ lies on line ℓ_{20}
 421 : $P_{20576} = (31, 1, 19, 1)$ lies on line ℓ_{18}
 422 : $P_{20675} = (2, 5, 19, 1)$ lies on line ℓ_4
 423 : $P_{20684} = (11, 5, 19, 1)$ lies on line ℓ_3
 424 : $P_{20685} = (12, 5, 19, 1)$ lies on line ℓ_2
 425 : $P_{20745} = (8, 7, 19, 1)$ lies on line ℓ_{17}
 426 : $P_{20758} = (21, 7, 19, 1)$ lies on line ℓ_{15}
 427 : $P_{20763} = (26, 7, 19, 1)$ lies on line ℓ_{16}
 428 : $P_{20772} = (3, 8, 19, 1)$ lies on line ℓ_8
 429 : $P_{20826} = (25, 9, 19, 1)$ lies on line ℓ_7
 430 : $P_{20903} = (6, 12, 19, 1)$ lies on line ℓ_5
 431 : $P_{21017} = (24, 15, 19, 1)$ lies on line ℓ_6
 432 : $P_{21061} = (4, 17, 19, 1)$ lies on line ℓ_{21}
 433 : $P_{21121} = (0, 19, 19, 1)$ lies on line ℓ_1
 434 : $P_{21457} = (16, 29, 19, 1)$ lies on line ℓ_{12}
 435 : $P_{21458} = (17, 29, 19, 1)$ lies on line ℓ_{14}
 436 : $P_{21469} = (28, 29, 19, 1)$ lies on line ℓ_{13}
 437 : $P_{21483} = (10, 30, 19, 1)$ lies on line ℓ_{10}
 438 : $P_{21488} = (15, 30, 19, 1)$ lies on line ℓ_9
 439 : $P_{21500} = (27, 30, 19, 1)$ lies on line ℓ_{11}
 440 : $P_{21557} = (20, 0, 20, 1)$ lies on line ℓ_0
 441 : $P_{21584} = (15, 1, 20, 1)$ lies on line ℓ_{21}
 442 : $P_{21615} = (14, 2, 20, 1)$ lies on line ℓ_{15}
 443 : $P_{21619} = (18, 2, 20, 1)$ lies on line ℓ_{16}
 444 : $P_{21631} = (30, 2, 20, 1)$ lies on line ℓ_{17}
 445 : $P_{21760} = (31, 6, 20, 1)$ lies on line ℓ_7
 446 : $P_{22050} = (1, 16, 20, 1)$ lies on line ℓ_{14}
 447 : $P_{22057} = (8, 16, 20, 1)$ lies on line ℓ_{13}
 448 : $P_{22074} = (25, 16, 20, 1)$ lies on line ℓ_{12}
 449 : $P_{22107} = (26, 17, 20, 1)$ lies on line ℓ_5
 450 : $P_{22177} = (0, 20, 20, 1)$ lies on line ℓ_1
 451 : $P_{22290} = (17, 23, 20, 1)$ lies on line ℓ_2
 452 : $P_{22292} = (19, 23, 20, 1)$ lies on line ℓ_3
 453 : $P_{22294} = (21, 23, 20, 1)$ lies on line ℓ_4
 454 : $P_{22310} = (5, 24, 20, 1)$ lies on line ℓ_{18}
 455 : $P_{22311} = (6, 24, 20, 1)$ lies on line ℓ_{19}
 456 : $P_{22332} = (27, 24, 20, 1)$ lies on line ℓ_{20}
 457 : $P_{22440} = (7, 28, 20, 1)$ lies on line ℓ_6
 458 : $P_{22475} = (10, 29, 20, 1)$ lies on line ℓ_{11}
 459 : $P_{22476} = (11, 29, 20, 1)$ lies on line ℓ_{10}
 460 : $P_{22493} = (28, 29, 20, 1)$ lies on line ℓ_9
 461 : $P_{22510} = (13, 30, 20, 1)$ lies on line ℓ_8
 462 : $P_{22582} = (21, 0, 21, 1)$ lies on line ℓ_0
 463 : $P_{22722} = (1, 5, 21, 1)$ lies on line ℓ_{20}
 464 : $P_{22729} = (8, 5, 21, 1)$ lies on line ℓ_{19}
 465 : $P_{22733} = (12, 5, 21, 1)$ lies on line ℓ_{18}
 466 : $P_{22756} = (3, 6, 21, 1)$ lies on line ℓ_{13}
 467 : $P_{22779} = (26, 6, 21, 1)$ lies on line ℓ_{12}
 468 : $P_{22784} = (31, 6, 21, 1)$ lies on line ℓ_{14}
 469 : $P_{22835} = (18, 8, 21, 1)$ lies on line ℓ_7
 470 : $P_{22856} = (7, 9, 21, 1)$ lies on line ℓ_{10}
 471 : $P_{22871} = (22, 9, 21, 1)$ lies on line ℓ_9
 472 : $P_{22873} = (24, 9, 21, 1)$ lies on line ℓ_{11}
 473 : $P_{22992} = (15, 13, 21, 1)$ lies on line ℓ_8
 474 : $P_{23107} = (2, 17, 21, 1)$ lies on line ℓ_3
 475 : $P_{23115} = (10, 17, 21, 1)$ lies on line ℓ_4
 476 : $P_{23130} = (25, 17, 21, 1)$ lies on line ℓ_2
 477 : $P_{23233} = (0, 21, 21, 1)$ lies on line ℓ_1
 478 : $P_{23288} = (23, 22, 21, 1)$ lies on line ℓ_6
 479 : $P_{23391} = (30, 25, 21, 1)$ lies on line ℓ_5
 480 : $P_{23436} = (11, 27, 21, 1)$ lies on line ℓ_{15}
 481 : $P_{23438} = (13, 27, 21, 1)$ lies on line ℓ_{17}
 482 : $P_{23454} = (29, 27, 21, 1)$ lies on line ℓ_{16}
 483 : $P_{23573} = (20, 31, 21, 1)$ lies on line ℓ_{21}
 484 : $P_{23607} = (22, 0, 22, 1)$ lies on line ℓ_0
 485 : $P_{23635} = (18, 1, 22, 1)$ lies on line ℓ_5
 486 : $P_{23819} = (10, 7, 22, 1)$ lies on line ℓ_{20}
 487 : $P_{23832} = (23, 7, 22, 1)$ lies on line ℓ_{18}
 488 : $P_{23835} = (26, 7, 22, 1)$ lies on line ℓ_{19}
 489 : $P_{23843} = (2, 8, 22, 1)$ lies on line ℓ_6
 490 : $P_{24105} = (8, 16, 22, 1)$ lies on line ℓ_9
 491 : $P_{24108} = (11, 16, 22, 1)$ lies on line ℓ_{11}
 492 : $P_{24116} = (19, 16, 22, 1)$ lies on line ℓ_{10}
 493 : $P_{24261} = (4, 21, 22, 1)$ lies on line ℓ_{15}

494 : $P_{24269} = (12, 21, 22, 1)$ lies on line ℓ_{16}
 495 : $P_{24286} = (29, 21, 22, 1)$ lies on line ℓ_{17}
 496 : $P_{24289} = (0, 22, 22, 1)$ lies on line ℓ_1
 497 : $P_{24381} = (28, 24, 22, 1)$ lies on line ℓ_{21}
 498 : $P_{24409} = (24, 25, 22, 1)$ lies on line ℓ_{14}
 499 : $P_{24415} = (30, 25, 22, 1)$ lies on line ℓ_{13}
 500 : $P_{24416} = (31, 25, 22, 1)$ lies on line ℓ_{12}
 501 : $P_{24422} = (5, 26, 22, 1)$ lies on line ℓ_7
 502 : $P_{24450} = (1, 27, 22, 1)$ lies on line ℓ_2
 503 : $P_{24463} = (14, 27, 22, 1)$ lies on line ℓ_4
 504 : $P_{24469} = (20, 27, 22, 1)$ lies on line ℓ_3
 505 : $P_{24522} = (9, 29, 22, 1)$ lies on line ℓ_8
 506 : $P_{24632} = (23, 0, 23, 1)$ lies on line ℓ_0
 507 : $P_{24691} = (18, 2, 23, 1)$ lies on line ℓ_6
 508 : $P_{24739} = (2, 4, 23, 1)$ lies on line ℓ_9
 509 : $P_{24762} = (25, 4, 23, 1)$ lies on line ℓ_{11}
 510 : $P_{24768} = (31, 4, 23, 1)$ lies on line ℓ_{10}
 511 : $P_{24808} = (7, 6, 23, 1)$ lies on line ℓ_{21}
 512 : $P_{24919} = (22, 9, 23, 1)$ lies on line ℓ_5
 513 : $P_{24994} = (1, 12, 23, 1)$ lies on line ℓ_{15}
 514 : $P_{24996} = (3, 12, 23, 1)$ lies on line ℓ_{16}
 515 : $P_{25007} = (14, 12, 23, 1)$ lies on line ℓ_{17}
 516 : $P_{25068} = (11, 14, 23, 1)$ lies on line ℓ_8
 517 : $P_{25095} = (6, 15, 23, 1)$ lies on line ℓ_{14}
 518 : $P_{25110} = (21, 15, 23, 1)$ lies on line ℓ_{13}
 519 : $P_{25117} = (28, 15, 23, 1)$ lies on line ℓ_{12}
 520 : $P_{25257} = (8, 20, 23, 1)$ lies on line ℓ_7
 521 : $P_{25345} = (0, 23, 23, 1)$ lies on line ℓ_1
 522 : $P_{25457} = (16, 26, 23, 1)$ lies on line ℓ_{20}
 523 : $P_{25461} = (20, 26, 23, 1)$ lies on line ℓ_{19}
 524 : $P_{25471} = (30, 26, 23, 1)$ lies on line ℓ_{18}
 525 : $P_{25542} = (5, 29, 23, 1)$ lies on line ℓ_3
 526 : $P_{25546} = (9, 29, 23, 1)$ lies on line ℓ_2
 527 : $P_{25554} = (17, 29, 23, 1)$ lies on line ℓ_4
 528 : $P_{25657} = (24, 0, 24, 1)$ lies on line ℓ_0
 529 : $P_{25742} = (13, 3, 24, 1)$ lies on line ℓ_{12}
 530 : $P_{25748} = (19, 3, 24, 1)$ lies on line ℓ_{13}
 531 : $P_{25758} = (29, 3, 24, 1)$ lies on line ℓ_{14}
 532 : $P_{25770} = (9, 4, 24, 1)$ lies on line ℓ_7
 533 : $P_{26010} = (25, 11, 24, 1)$ lies on line ℓ_6
 534 : $P_{26149} = (4, 16, 24, 1)$ lies on line ℓ_{19}
 535 : $P_{26151} = (6, 16, 24, 1)$ lies on line ℓ_{18}
 536 : $P_{26163} = (18, 16, 24, 1)$ lies on line ℓ_{20}
 537 : $P_{26294} = (21, 20, 24, 1)$ lies on line ℓ_8
 538 : $P_{26348} = (11, 22, 24, 1)$ lies on line ℓ_9
 539 : $P_{26349} = (12, 22, 24, 1)$ lies on line ℓ_{11}
 540 : $P_{26354} = (17, 22, 24, 1)$ lies on line ℓ_{10}
 541 : $P_{26401} = (0, 24, 24, 1)$ lies on line ℓ_1
 542 : $P_{26466} = (1, 26, 24, 1)$ lies on line ℓ_3
 543 : $P_{26470} = (5, 26, 24, 1)$ lies on line ℓ_4
 544 : $P_{26495} = (30, 26, 24, 1)$ lies on line ℓ_2
 545 : $P_{26571} = (10, 29, 24, 1)$ lies on line ℓ_{21}
 546 : $P_{26608} = (15, 30, 24, 1)$ lies on line ℓ_5
 547 : $P_{26645} = (20, 31, 24, 1)$ lies on line ℓ_{17}

548 : $P_{26648} = (23, 31, 24, 1)$ lies on line ℓ_{15}
 549 : $P_{26653} = (28, 31, 24, 1)$ lies on line ℓ_{16}
 550 : $P_{26682} = (25, 0, 25, 1)$ lies on line ℓ_0
 551 : $P_{26698} = (9, 1, 25, 1)$ lies on line ℓ_6
 552 : $P_{26722} = (1, 2, 25, 1)$ lies on line ℓ_9
 553 : $P_{26750} = (29, 2, 25, 1)$ lies on line ℓ_{10}
 554 : $P_{26751} = (30, 2, 25, 1)$ lies on line ℓ_{11}
 555 : $P_{26770} = (17, 3, 25, 1)$ lies on line ℓ_{21}
 556 : $P_{26856} = (7, 6, 25, 1)$ lies on line ℓ_{17}
 557 : $P_{26867} = (18, 6, 25, 1)$ lies on line ℓ_{15}
 558 : $P_{26868} = (19, 6, 25, 1)$ lies on line ℓ_{16}
 559 : $P_{26904} = (23, 7, 25, 1)$ lies on line ℓ_8
 560 : $P_{26981} = (4, 10, 25, 1)$ lies on line ℓ_7
 561 : $P_{27081} = (8, 13, 25, 1)$ lies on line ℓ_{20}
 562 : $P_{27083} = (10, 13, 25, 1)$ lies on line ℓ_{19}
 563 : $P_{27088} = (15, 13, 25, 1)$ lies on line ℓ_{18}
 564 : $P_{27332} = (3, 21, 25, 1)$ lies on line ℓ_{14}
 565 : $P_{27343} = (14, 21, 25, 1)$ lies on line ℓ_{12}
 566 : $P_{27353} = (24, 21, 25, 1)$ lies on line ℓ_{13}
 567 : $P_{27372} = (11, 22, 25, 1)$ lies on line ℓ_5
 568 : $P_{27457} = (0, 25, 25, 1)$ lies on line ℓ_1
 569 : $P_{27569} = (16, 28, 25, 1)$ lies on line ℓ_3
 570 : $P_{27575} = (22, 28, 25, 1)$ lies on line ℓ_2
 571 : $P_{27579} = (26, 28, 25, 1)$ lies on line ℓ_4
 572 : $P_{27707} = (26, 0, 26, 1)$ lies on line ℓ_0
 573 : $P_{27834} = (25, 4, 26, 1)$ lies on line ℓ_{21}
 574 : $P_{27939} = (2, 8, 26, 1)$ lies on line ℓ_{16}
 575 : $P_{27960} = (23, 8, 26, 1)$ lies on line ℓ_{17}
 576 : $P_{27966} = (29, 8, 26, 1)$ lies on line ℓ_{15}
 577 : $P_{28005} = (4, 10, 26, 1)$ lies on line ℓ_{14}
 578 : $P_{28006} = (5, 10, 26, 1)$ lies on line ℓ_{13}
 579 : $P_{28012} = (11, 10, 26, 1)$ lies on line ℓ_{12}
 580 : $P_{28136} = (7, 14, 26, 1)$ lies on line ℓ_5
 581 : $P_{28164} = (3, 15, 26, 1)$ lies on line ℓ_{20}
 582 : $P_{28181} = (20, 15, 26, 1)$ lies on line ℓ_{18}
 583 : $P_{28185} = (24, 15, 26, 1)$ lies on line ℓ_{19}
 584 : $P_{28391} = (6, 22, 26, 1)$ lies on line ℓ_3
 585 : $P_{28399} = (14, 22, 26, 1)$ lies on line ℓ_2
 586 : $P_{28415} = (30, 22, 26, 1)$ lies on line ℓ_4
 587 : $P_{28434} = (17, 23, 26, 1)$ lies on line ℓ_8
 588 : $P_{28468} = (19, 24, 26, 1)$ lies on line ℓ_7
 589 : $P_{28513} = (0, 26, 26, 1)$ lies on line ℓ_1
 590 : $P_{28554} = (9, 27, 26, 1)$ lies on line ℓ_{10}
 591 : $P_{28558} = (13, 27, 26, 1)$ lies on line ℓ_{11}
 592 : $P_{28576} = (31, 27, 26, 1)$ lies on line ℓ_9
 593 : $P_{28701} = (28, 31, 26, 1)$ lies on line ℓ_6
 594 : $P_{28732} = (27, 0, 27, 1)$ lies on line ℓ_0
 595 : $P_{28852} = (19, 4, 27, 1)$ lies on line ℓ_8
 596 : $P_{28900} = (3, 6, 27, 1)$ lies on line ℓ_5
 597 : $P_{29190} = (5, 15, 27, 1)$ lies on line ℓ_{10}
 598 : $P_{29206} = (21, 15, 27, 1)$ lies on line ℓ_9
 599 : $P_{29216} = (31, 15, 27, 1)$ lies on line ℓ_{11}
 600 : $P_{29218} = (1, 16, 27, 1)$ lies on line ℓ_4
 601 : $P_{29223} = (6, 16, 27, 1)$ lies on line ℓ_2

602 : $P_{29240} = (23, 16, 27, 1)$ lies on line ℓ_3
 603 : $P_{29253} = (4, 17, 27, 1)$ lies on line ℓ_{17}
 604 : $P_{29262} = (13, 17, 27, 1)$ lies on line ℓ_{16}
 605 : $P_{29273} = (24, 17, 27, 1)$ lies on line ℓ_{15}
 606 : $P_{29303} = (22, 18, 27, 1)$ lies on line ℓ_{19}
 607 : $P_{29306} = (25, 18, 27, 1)$ lies on line ℓ_{20}
 608 : $P_{29310} = (29, 18, 27, 1)$ lies on line ℓ_{18}
 609 : $P_{29389} = (12, 21, 27, 1)$ lies on line ℓ_6
 610 : $P_{29439} = (30, 22, 27, 1)$ lies on line ℓ_7
 611 : $P_{29539} = (2, 26, 27, 1)$ lies on line ℓ_{21}
 612 : $P_{29569} = (0, 27, 27, 1)$ lies on line ℓ_1
 613 : $P_{29609} = (8, 28, 27, 1)$ lies on line ℓ_{12}
 614 : $P_{29615} = (14, 28, 27, 1)$ lies on line ℓ_{13}
 615 : $P_{29627} = (26, 28, 27, 1)$ lies on line ℓ_{14}
 616 : $P_{29757} = (28, 0, 28, 1)$ lies on line ℓ_0
 617 : $P_{29808} = (15, 2, 28, 1)$ lies on line ℓ_3
 618 : $P_{29815} = (22, 2, 28, 1)$ lies on line ℓ_4
 619 : $P_{29820} = (27, 2, 28, 1)$ lies on line ℓ_2
 620 : $P_{29940} = (19, 6, 28, 1)$ lies on line ℓ_6
 621 : $P_{30058} = (9, 10, 28, 1)$ lies on line ℓ_{21}
 622 : $P_{30088} = (7, 11, 28, 1)$ lies on line ℓ_{18}
 623 : $P_{30102} = (21, 11, 28, 1)$ lies on line ℓ_{20}
 624 : $P_{30106} = (25, 11, 28, 1)$ lies on line ℓ_{19}
 625 : $P_{30117} = (4, 12, 28, 1)$ lies on line ℓ_{10}
 626 : $P_{30119} = (6, 12, 28, 1)$ lies on line ℓ_9
 627 : $P_{30127} = (14, 12, 28, 1)$ lies on line ℓ_{11}
 628 : $P_{30274} = (1, 17, 28, 1)$ lies on line ℓ_{12}
 629 : $P_{30283} = (10, 17, 28, 1)$ lies on line ℓ_{14}
 630 : $P_{30299} = (26, 17, 28, 1)$ lies on line ℓ_{13}
 631 : $P_{30334} = (29, 18, 28, 1)$ lies on line ℓ_8
 632 : $P_{30372} = (3, 20, 28, 1)$ lies on line ℓ_{15}
 633 : $P_{30374} = (5, 20, 28, 1)$ lies on line ℓ_{16}
 634 : $P_{30387} = (18, 20, 28, 1)$ lies on line ℓ_{17}
 635 : $P_{30553} = (24, 25, 28, 1)$ lies on line ℓ_7
 636 : $P_{30624} = (31, 27, 28, 1)$ lies on line ℓ_5
 637 : $P_{30625} = (0, 28, 28, 1)$ lies on line ℓ_1
 638 : $P_{30782} = (29, 0, 29, 1)$ lies on line ℓ_0
 639 : $P_{30816} = (31, 1, 29, 1)$ lies on line ℓ_8
 640 : $P_{30890} = (9, 4, 29, 1)$ lies on line ℓ_4
 641 : $P_{30900} = (19, 4, 29, 1)$ lies on line ℓ_2
 642 : $P_{30911} = (30, 4, 29, 1)$ lies on line ℓ_3
 643 : $P_{30979} = (2, 7, 29, 1)$ lies on line ℓ_{12}
 644 : $P_{30994} = (17, 7, 29, 1)$ lies on line ℓ_{13}
 645 : $P_{30997} = (20, 7, 29, 1)$ lies on line ℓ_{14}
 646 : $P_{31140} = (3, 12, 29, 1)$ lies on line ℓ_6
 647 : $P_{31170} = (1, 13, 29, 1)$ lies on line ℓ_{17}
 648 : $P_{31175} = (6, 13, 29, 1)$ lies on line ℓ_{15}
 649 : $P_{31179} = (10, 13, 29, 1)$ lies on line ℓ_{16}
 650 : $P_{31388} = (27, 19, 29, 1)$ lies on line ℓ_5
 651 : $P_{31411} = (18, 20, 29, 1)$ lies on line ℓ_{21}
 652 : $P_{31471} = (14, 22, 29, 1)$ lies on line ℓ_{18}
 653 : $P_{31472} = (15, 22, 29, 1)$ lies on line ℓ_{20}

654 : $P_{31480} = (23, 22, 29, 1)$ lies on line ℓ_{19}
 655 : $P_{31510} = (21, 23, 29, 1)$ lies on line ℓ_7
 656 : $P_{31529} = (8, 24, 29, 1)$ lies on line ℓ_{10}
 657 : $P_{31533} = (12, 24, 29, 1)$ lies on line ℓ_9
 658 : $P_{31549} = (28, 24, 29, 1)$ lies on line ℓ_{11}
 659 : $P_{31681} = (0, 29, 29, 1)$ lies on line ℓ_1
 660 : $P_{31807} = (30, 0, 30, 1)$ lies on line ℓ_0
 661 : $P_{31824} = (15, 1, 30, 1)$ lies on line ℓ_{11}
 662 : $P_{31827} = (18, 1, 30, 1)$ lies on line ℓ_9
 663 : $P_{31837} = (28, 1, 30, 1)$ lies on line ℓ_{10}
 664 : $P_{31882} = (9, 3, 30, 1)$ lies on line ℓ_{15}
 665 : $P_{31890} = (17, 3, 30, 1)$ lies on line ℓ_{17}
 666 : $P_{31900} = (27, 3, 30, 1)$ lies on line ℓ_{16}
 667 : $P_{31939} = (2, 5, 30, 1)$ lies on line ℓ_7
 668 : $P_{32152} = (23, 11, 30, 1)$ lies on line ℓ_5
 669 : $P_{32233} = (8, 14, 30, 1)$ lies on line ℓ_3
 670 : $P_{32236} = (11, 14, 30, 1)$ lies on line ℓ_2
 671 : $P_{32238} = (13, 14, 30, 1)$ lies on line ℓ_4
 672 : $P_{32346} = (25, 17, 30, 1)$ lies on line ℓ_8
 673 : $P_{32375} = (22, 18, 30, 1)$ lies on line ℓ_6
 674 : $P_{32411} = (26, 19, 30, 1)$ lies on line ℓ_{21}
 675 : $P_{32421} = (4, 20, 30, 1)$ lies on line ℓ_{20}
 676 : $P_{32422} = (5, 20, 30, 1)$ lies on line ℓ_{19}
 677 : $P_{32438} = (21, 20, 30, 1)$ lies on line ℓ_{18}
 678 : $P_{32552} = (7, 24, 30, 1)$ lies on line ℓ_{12}
 679 : $P_{32557} = (12, 24, 30, 1)$ lies on line ℓ_{13}
 680 : $P_{32564} = (19, 24, 30, 1)$ lies on line ℓ_{14}
 681 : $P_{32737} = (0, 30, 30, 1)$ lies on line ℓ_1
 682 : $P_{32832} = (31, 0, 31, 1)$ lies on line ℓ_0
 683 : $P_{32892} = (27, 2, 31, 1)$ lies on line ℓ_8
 684 : $P_{32916} = (19, 3, 31, 1)$ lies on line ℓ_5
 685 : $P_{33060} = (3, 8, 31, 1)$ lies on line ℓ_2
 686 : $P_{33075} = (18, 8, 31, 1)$ lies on line ℓ_4
 687 : $P_{33082} = (25, 8, 31, 1)$ lies on line ℓ_3
 688 : $P_{33100} = (11, 9, 31, 1)$ lies on line ℓ_{19}
 689 : $P_{33117} = (28, 9, 31, 1)$ lies on line ℓ_{18}
 690 : $P_{33119} = (30, 9, 31, 1)$ lies on line ℓ_{20}
 691 : $P_{33168} = (15, 11, 31, 1)$ lies on line ℓ_7
 692 : $P_{33218} = (1, 13, 31, 1)$ lies on line ℓ_{21}
 693 : $P_{33253} = (4, 14, 31, 1)$ lies on line ℓ_{12}
 694 : $P_{33256} = (7, 14, 31, 1)$ lies on line ℓ_{13}
 695 : $P_{33262} = (13, 14, 31, 1)$ lies on line ℓ_{14}
 696 : $P_{33489} = (16, 21, 31, 1)$ lies on line ℓ_{10}
 697 : $P_{33497} = (24, 21, 31, 1)$ lies on line ℓ_9
 698 : $P_{33502} = (29, 21, 31, 1)$ lies on line ℓ_{11}
 699 : $P_{33575} = (6, 24, 31, 1)$ lies on line ℓ_6
 700 : $P_{33635} = (2, 26, 31, 1)$ lies on line ℓ_{17}
 701 : $P_{33645} = (12, 26, 31, 1)$ lies on line ℓ_{15}
 702 : $P_{33653} = (20, 26, 31, 1)$ lies on line ℓ_{16}
 703 : $P_{33793} = (0, 31, 31, 1)$ lies on line ℓ_1

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
0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 1 intersects

Line	ℓ_0	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 3 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 4 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Line 18 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 19 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{20}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 20 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{21}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

Line 21 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3	P_3

The surface has 705 points:

The points on the surface are:

0 : $P_3 = (0, 0, 0, 1)$	32 : $P_{2731} = (10, 20, 1, 1)$	64 : $P_{4114} = (17, 31, 2, 1)$
1 : $P_{36} = (1, 0, 1, 0)$	33 : $P_{2733} = (12, 20, 1, 1)$	65 : $P_{4115} = (18, 31, 2, 1)$
2 : $P_{67} = (0, 1, 1, 0)$	34 : $P_{2739} = (18, 20, 1, 1)$	66 : $P_{4125} = (28, 31, 2, 1)$
3 : $P_{235} = (8, 6, 1, 0)$	35 : $P_{2788} = (3, 22, 1, 1)$	67 : $P_{4132} = (3, 0, 3, 1)$
4 : $P_{244} = (17, 6, 1, 0)$	36 : $P_{2796} = (11, 22, 1, 1)$	68 : $P_{4204} = (11, 2, 3, 1)$
5 : $P_{258} = (31, 6, 1, 0)$	37 : $P_{2815} = (30, 22, 1, 1)$	69 : $P_{4211} = (18, 2, 3, 1)$
6 : $P_{295} = (4, 8, 1, 0)$	38 : $P_{2886} = (5, 25, 1, 1)$	70 : $P_{4220} = (27, 2, 3, 1)$
7 : $P_{371} = (16, 10, 1, 0)$	39 : $P_{2896} = (15, 25, 1, 1)$	71 : $P_{4225} = (0, 3, 3, 1)$
8 : $P_{496} = (13, 14, 1, 0)$	40 : $P_{2900} = (19, 25, 1, 1)$	72 : $P_{4361} = (8, 7, 3, 1)$
9 : $P_{645} = (2, 19, 1, 0)$	41 : $P_{3018} = (9, 29, 1, 1)$	73 : $P_{4453} = (4, 10, 3, 1)$
10 : $P_{685} = (10, 20, 1, 0)$	42 : $P_{3023} = (14, 29, 1, 1)$	74 : $P_{4471} = (22, 10, 3, 1)$
11 : $P_{687} = (12, 20, 1, 0)$	43 : $P_{3035} = (26, 29, 1, 1)$	75 : $P_{4473} = (24, 10, 3, 1)$
12 : $P_{693} = (18, 20, 1, 0)$	44 : $P_{3068} = (27, 30, 1, 1)$	76 : $P_{4592} = (15, 14, 3, 1)$
13 : $P_{742} = (3, 22, 1, 0)$	45 : $P_{3107} = (2, 0, 2, 1)$	77 : $P_{4593} = (16, 14, 3, 1)$
14 : $P_{750} = (11, 22, 1, 0)$	46 : $P_{3169} = (0, 2, 2, 1)$	78 : $P_{4594} = (17, 14, 3, 1)$
15 : $P_{769} = (30, 22, 1, 0)$	47 : $P_{3205} = (4, 3, 2, 1)$	79 : $P_{4647} = (6, 16, 3, 1)$
16 : $P_{840} = (5, 25, 1, 0)$	48 : $P_{3399} = (6, 9, 2, 1)$	80 : $P_{4728} = (23, 18, 3, 1)$
17 : $P_{850} = (15, 25, 1, 0)$	49 : $P_{3415} = (22, 9, 2, 1)$	81 : $P_{4909} = (12, 24, 3, 1)$
18 : $P_{854} = (19, 25, 1, 0)$	50 : $P_{3418} = (25, 9, 2, 1)$	82 : $P_{4948} = (19, 25, 3, 1)$
19 : $P_{972} = (9, 29, 1, 0)$	51 : $P_{3496} = (7, 12, 2, 1)$	83 : $P_{4949} = (20, 25, 3, 1)$
20 : $P_{977} = (14, 29, 1, 0)$	52 : $P_{3505} = (16, 12, 2, 1)$	84 : $P_{4959} = (30, 25, 3, 1)$
21 : $P_{989} = (26, 29, 1, 0)$	53 : $P_{3516} = (27, 12, 2, 1)$	85 : $P_{5110} = (21, 30, 3, 1)$
22 : $P_{1022} = (27, 30, 1, 0)$	54 : $P_{3522} = (1, 13, 2, 1)$	86 : $P_{5126} = (5, 31, 3, 1)$
23 : $P_{2083} = (1, 0, 1, 1)$	55 : $P_{3541} = (20, 13, 2, 1)$	87 : $P_{5128} = (7, 31, 3, 1)$
24 : $P_{2114} = (0, 1, 1, 1)$	56 : $P_{3545} = (24, 13, 2, 1)$	88 : $P_{5150} = (29, 31, 3, 1)$
25 : $P_{2281} = (8, 6, 1, 1)$	57 : $P_{3625} = (8, 16, 2, 1)$	89 : $P_{5157} = (4, 0, 4, 1)$
26 : $P_{2290} = (17, 6, 1, 1)$	58 : $P_{3750} = (5, 20, 2, 1)$	90 : $P_{5281} = (0, 4, 4, 1)$
27 : $P_{2304} = (31, 6, 1, 1)$	59 : $P_{3844} = (3, 23, 2, 1)$	91 : $P_{5329} = (16, 5, 4, 1)$
28 : $P_{2341} = (4, 8, 1, 1)$	60 : $P_{3851} = (10, 23, 2, 1)$	92 : $P_{5353} = (8, 6, 4, 1)$
29 : $P_{2417} = (16, 10, 1, 1)$	61 : $P_{3871} = (30, 23, 2, 1)$	93 : $P_{5511} = (6, 11, 4, 1)$
30 : $P_{2542} = (13, 14, 1, 1)$	62 : $P_{3924} = (19, 25, 2, 1)$	94 : $P_{5525} = (20, 11, 4, 1)$
31 : $P_{2691} = (2, 19, 1, 1)$	63 : $P_{4027} = (26, 28, 2, 1)$	95 : $P_{5530} = (25, 11, 4, 1)$

96 : $P_{5579} = (10, 13, 4, 1)$	150 : $P_{8079} = (14, 27, 6, 1)$	204 : $P_{10561} = (0, 9, 9, 1)$
97 : $P_{5738} = (9, 18, 4, 1)$	151 : $P_{8096} = (31, 27, 6, 1)$	205 : $P_{10732} = (11, 14, 9, 1)$
98 : $P_{5741} = (12, 18, 4, 1)$	152 : $P_{8102} = (5, 28, 6, 1)$	206 : $P_{10738} = (17, 14, 9, 1)$
99 : $P_{5752} = (23, 18, 4, 1)$	153 : $P_{8104} = (7, 28, 6, 1)$	207 : $P_{10741} = (20, 14, 9, 1)$
100 : $P_{5892} = (3, 23, 4, 1)$	154 : $P_{8127} = (30, 28, 6, 1)$	208 : $P_{10761} = (8, 15, 9, 1)$
101 : $P_{5926} = (5, 24, 4, 1)$	155 : $P_{8232} = (7, 0, 7, 1)$	209 : $P_{10777} = (24, 15, 9, 1)$
102 : $P_{5935} = (14, 24, 4, 1)$	156 : $P_{8322} = (1, 3, 7, 1)$	210 : $P_{10784} = (31, 15, 9, 1)$
103 : $P_{5940} = (19, 24, 4, 1)$	157 : $P_{8338} = (17, 3, 7, 1)$	211 : $P_{10789} = (4, 16, 9, 1)$
104 : $P_{5987} = (2, 26, 4, 1)$	158 : $P_{8340} = (19, 3, 7, 1)$	212 : $P_{10827} = (10, 17, 9, 1)$
105 : $P_{5998} = (13, 26, 4, 1)$	159 : $P_{8393} = (8, 5, 7, 1)$	213 : $P_{10883} = (2, 19, 9, 1)$
106 : $P_{6006} = (21, 26, 4, 1)$	160 : $P_{8407} = (22, 5, 7, 1)$	214 : $P_{10894} = (13, 19, 9, 1)$
107 : $P_{6018} = (1, 27, 4, 1)$	161 : $P_{8412} = (27, 5, 7, 1)$	215 : $P_{10909} = (28, 19, 9, 1)$
108 : $P_{6024} = (7, 27, 4, 1)$	162 : $P_{8449} = (0, 7, 7, 1)$	216 : $P_{10974} = (29, 21, 9, 1)$
109 : $P_{6046} = (29, 27, 4, 1)$	163 : $P_{8650} = (9, 13, 7, 1)$	217 : $P_{11030} = (21, 23, 9, 1)$
110 : $P_{6098} = (17, 29, 4, 1)$	164 : $P_{8657} = (16, 13, 7, 1)$	218 : $P_{11034} = (25, 23, 9, 1)$
111 : $P_{6182} = (5, 0, 5, 1)$	165 : $P_{8661} = (20, 13, 7, 1)$	219 : $P_{11036} = (27, 23, 9, 1)$
112 : $P_{6307} = (2, 4, 5, 1)$	166 : $P_{8711} = (6, 15, 7, 1)$	220 : $P_{11283} = (18, 31, 9, 1)$
113 : $P_{6314} = (9, 4, 5, 1)$	167 : $P_{8748} = (11, 16, 7, 1)$	221 : $P_{11307} = (10, 0, 10, 1)$
114 : $P_{6320} = (15, 4, 5, 1)$	168 : $P_{8824} = (23, 18, 7, 1)$	222 : $P_{11336} = (7, 1, 10, 1)$
115 : $P_{6337} = (0, 5, 5, 1)$	169 : $P_{8825} = (24, 18, 7, 1)$	223 : $P_{11338} = (9, 1, 10, 1)$
116 : $P_{6377} = (8, 6, 5, 1)$	170 : $P_{8830} = (29, 18, 7, 1)$	224 : $P_{11344} = (15, 1, 10, 1)$
117 : $P_{6388} = (19, 6, 5, 1)$	171 : $P_{8864} = (31, 19, 7, 1)$	225 : $P_{11422} = (29, 3, 10, 1)$
118 : $P_{6398} = (29, 6, 5, 1)$	172 : $P_{8943} = (14, 22, 7, 1)$	226 : $P_{11557} = (4, 8, 10, 1)$
119 : $P_{6427} = (26, 7, 5, 1)$	173 : $P_{9037} = (12, 25, 7, 1)$	227 : $P_{11571} = (18, 8, 10, 1)$
120 : $P_{6489} = (24, 9, 5, 1)$	174 : $P_{9040} = (15, 25, 7, 1)$	228 : $P_{11583} = (30, 8, 10, 1)$
121 : $P_{6613} = (20, 13, 5, 1)$	175 : $P_{9051} = (26, 25, 7, 1)$	229 : $P_{11617} = (0, 10, 10, 1)$
122 : $P_{6632} = (7, 14, 5, 1)$	176 : $P_{9181} = (28, 29, 7, 1)$	230 : $P_{11684} = (3, 12, 10, 1)$
123 : $P_{6641} = (16, 14, 5, 1)$	177 : $P_{9257} = (8, 0, 8, 1)$	231 : $P_{11697} = (16, 12, 10, 1)$
124 : $P_{6650} = (25, 14, 5, 1)$	178 : $P_{9292} = (11, 1, 8, 1)$	232 : $P_{11712} = (31, 12, 10, 1)$
125 : $P_{6770} = (17, 18, 5, 1)$	179 : $P_{9299} = (18, 1, 8, 1)$	233 : $P_{11762} = (17, 14, 10, 1)$
126 : $P_{6774} = (21, 18, 5, 1)$	180 : $P_{9305} = (24, 1, 8, 1)$	234 : $P_{11797} = (20, 15, 10, 1)$
127 : $P_{6775} = (22, 18, 5, 1)$	181 : $P_{9505} = (0, 8, 8, 1)$	235 : $P_{11894} = (21, 18, 10, 1)$
128 : $P_{6813} = (28, 19, 5, 1)$	182 : $P_{9574} = (5, 10, 8, 1)$	236 : $P_{12121} = (24, 25, 10, 1)$
129 : $P_{6859} = (10, 21, 5, 1)$	183 : $P_{9607} = (6, 11, 8, 1)$	237 : $P_{12123} = (26, 25, 10, 1)$
130 : $P_{7149} = (12, 30, 5, 1)$	184 : $P_{9649} = (16, 12, 8, 1)$	238 : $P_{12124} = (27, 25, 10, 1)$
131 : $P_{7150} = (13, 30, 5, 1)$	185 : $P_{9797} = (4, 17, 8, 1)$	239 : $P_{12142} = (13, 26, 10, 1)$
132 : $P_{7168} = (31, 30, 5, 1)$	186 : $P_{9808} = (15, 17, 8, 1)$	240 : $P_{12198} = (5, 28, 10, 1)$
133 : $P_{7207} = (6, 0, 6, 1)$	187 : $P_{9819} = (26, 17, 8, 1)$	241 : $P_{12207} = (14, 28, 10, 1)$
134 : $P_{7244} = (11, 1, 6, 1)$	188 : $P_{9859} = (2, 19, 8, 1)$	242 : $P_{12216} = (23, 28, 10, 1)$
135 : $P_{7330} = (1, 4, 6, 1)$	189 : $P_{9871} = (14, 19, 8, 1)$	243 : $P_{12332} = (11, 0, 11, 1)$
136 : $P_{7348} = (19, 4, 6, 1)$	190 : $P_{9888} = (31, 19, 8, 1)$	244 : $P_{12450} = (1, 4, 11, 1)$
137 : $P_{7351} = (22, 4, 6, 1)$	191 : $P_{9924} = (3, 21, 8, 1)$	245 : $P_{12581} = (4, 8, 11, 1)$
138 : $P_{7373} = (12, 5, 6, 1)$	192 : $P_{9931} = (10, 21, 8, 1)$	246 : $P_{12600} = (23, 8, 11, 1)$
139 : $P_{7393} = (0, 6, 6, 1)$	193 : $P_{9949} = (28, 21, 8, 1)$	247 : $P_{12604} = (27, 8, 11, 1)$
140 : $P_{7665} = (16, 14, 6, 1)$	194 : $P_{9965} = (12, 22, 8, 1)$	248 : $P_{12673} = (0, 11, 11, 1)$
141 : $P_{7849} = (8, 20, 6, 1)$	195 : $P_{9966} = (13, 22, 8, 1)$	249 : $P_{12719} = (14, 12, 11, 1)$
142 : $P_{7850} = (9, 20, 6, 1)$	196 : $P_{9976} = (23, 22, 8, 1)$	250 : $P_{12753} = (16, 13, 11, 1)$
143 : $P_{7862} = (21, 20, 6, 1)$	197 : $P_{10101} = (20, 26, 8, 1)$	251 : $P_{12870} = (5, 17, 11, 1)$
144 : $P_{7897} = (24, 21, 6, 1)$	198 : $P_{10248} = (7, 31, 8, 1)$	252 : $P_{12878} = (13, 17, 11, 1)$
145 : $P_{7940} = (3, 23, 6, 1)$	199 : $P_{10282} = (9, 0, 9, 1)$	253 : $P_{12890} = (25, 17, 11, 1)$
146 : $P_{7950} = (13, 23, 6, 1)$	200 : $P_{10338} = (1, 2, 9, 1)$	254 : $P_{12906} = (9, 18, 11, 1)$
147 : $P_{7962} = (25, 23, 6, 1)$	201 : $P_{10436} = (3, 5, 9, 1)$	255 : $P_{13091} = (2, 24, 11, 1)$
148 : $P_{8016} = (15, 25, 6, 1)$	202 : $P_{10449} = (16, 5, 9, 1)$	256 : $P_{13095} = (6, 24, 11, 1)$
149 : $P_{8075} = (10, 27, 6, 1)$	203 : $P_{10455} = (22, 5, 9, 1)$	257 : $P_{13117} = (28, 24, 11, 1)$

258 : $P_{13239} = (22, 28, 11, 1)$	312 : $P_{15456} = (31, 1, 14, 1)$	366 : $P_{17927} = (6, 15, 16, 1)$
259 : $P_{13293} = (12, 30, 11, 1)$	313 : $P_{15516} = (27, 3, 14, 1)$	367 : $P_{17941} = (20, 15, 16, 1)$
260 : $P_{13296} = (15, 30, 11, 1)$	314 : $P_{15575} = (22, 5, 14, 1)$	368 : $P_{17950} = (29, 15, 16, 1)$
261 : $P_{13310} = (29, 30, 11, 1)$	315 : $P_{15587} = (2, 6, 14, 1)$	369 : $P_{17953} = (0, 16, 16, 1)$
262 : $P_{13320} = (7, 31, 11, 1)$	316 : $P_{15588} = (3, 6, 14, 1)$	370 : $P_{17998} = (13, 17, 16, 1)$
263 : $P_{13323} = (10, 31, 11, 1)$	317 : $P_{15592} = (7, 6, 14, 1)$	371 : $P_{18091} = (10, 20, 16, 1)$
264 : $P_{13331} = (18, 31, 11, 1)$	318 : $P_{15709} = (28, 9, 14, 1)$	372 : $P_{18157} = (12, 22, 16, 1)$
265 : $P_{13357} = (12, 0, 12, 1)$	319 : $P_{15722} = (9, 10, 14, 1)$	373 : $P_{18214} = (5, 24, 16, 1)$
266 : $P_{13431} = (22, 2, 12, 1)$	320 : $P_{15729} = (16, 10, 14, 1)$	374 : $P_{18319} = (14, 27, 16, 1)$
267 : $P_{13603} = (2, 8, 12, 1)$	321 : $P_{15732} = (19, 10, 14, 1)$	375 : $P_{18482} = (17, 0, 17, 1)$
268 : $P_{13604} = (3, 8, 12, 1)$	322 : $P_{15841} = (0, 14, 14, 1)$	376 : $P_{18744} = (23, 8, 17, 1)$
269 : $P_{13610} = (9, 8, 12, 1)$	323 : $P_{16146} = (17, 23, 14, 1)$	377 : $P_{18765} = (12, 9, 17, 1)$
270 : $P_{13689} = (24, 10, 12, 1)$	324 : $P_{16153} = (24, 23, 14, 1)$	378 : $P_{18778} = (25, 9, 17, 1)$
271 : $P_{13703} = (6, 11, 12, 1)$	325 : $P_{16159} = (30, 23, 14, 1)$	379 : $P_{18781} = (28, 9, 17, 1)$
272 : $P_{13720} = (23, 11, 12, 1)$	326 : $P_{16230} = (5, 26, 14, 1)$	380 : $P_{18824} = (7, 11, 17, 1)$
273 : $P_{13723} = (26, 11, 12, 1)$	327 : $P_{16238} = (13, 26, 14, 1)$	381 : $P_{18981} = (4, 16, 17, 1)$
274 : $P_{13729} = (0, 12, 12, 1)$	328 : $P_{16243} = (18, 26, 14, 1)$	382 : $P_{18988} = (11, 16, 17, 1)$
275 : $P_{13776} = (15, 13, 12, 1)$	329 : $P_{16365} = (12, 30, 14, 1)$	383 : $P_{19008} = (31, 16, 17, 1)$
276 : $P_{13777} = (16, 13, 12, 1)$	330 : $P_{16414} = (29, 31, 14, 1)$	384 : $P_{19009} = (0, 17, 17, 1)$
277 : $P_{13779} = (18, 13, 12, 1)$	331 : $P_{16432} = (15, 0, 15, 1)$	385 : $P_{19091} = (18, 19, 17, 1)$
278 : $P_{13846} = (21, 15, 12, 1)$	332 : $P_{16645} = (4, 7, 15, 1)$	386 : $P_{19099} = (26, 19, 17, 1)$
279 : $P_{13973} = (20, 19, 12, 1)$	333 : $P_{16661} = (20, 7, 15, 1)$	387 : $P_{19100} = (27, 19, 17, 1)$
280 : $P_{13980} = (27, 19, 12, 1)$	334 : $P_{16664} = (23, 7, 15, 1)$	388 : $P_{19113} = (8, 20, 17, 1)$
281 : $P_{13981} = (28, 19, 12, 1)$	335 : $P_{16716} = (11, 9, 15, 1)$	389 : $P_{19115} = (10, 20, 17, 1)$
282 : $P_{14111} = (30, 23, 12, 1)$	336 : $P_{16739} = (2, 10, 15, 1)$	390 : $P_{19127} = (22, 20, 17, 1)$
283 : $P_{14246} = (5, 28, 12, 1)$	337 : $P_{16753} = (16, 10, 15, 1)$	391 : $P_{19140} = (3, 21, 17, 1)$
284 : $P_{14283} = (10, 29, 12, 1)$	338 : $P_{16761} = (24, 10, 15, 1)$	392 : $P_{19358} = (29, 27, 17, 1)$
285 : $P_{14287} = (14, 29, 12, 1)$	339 : $P_{16807} = (6, 12, 15, 1)$	393 : $P_{19375} = (14, 28, 17, 1)$
286 : $P_{14298} = (25, 29, 12, 1)$	340 : $P_{16818} = (17, 12, 15, 1)$	394 : $P_{19431} = (6, 30, 17, 1)$
287 : $P_{14382} = (13, 0, 13, 1)$	341 : $P_{16828} = (27, 12, 15, 1)$	395 : $P_{19438} = (13, 30, 17, 1)$
288 : $P_{14463} = (30, 2, 13, 1)$	342 : $P_{16897} = (0, 15, 15, 1)$	396 : $P_{19446} = (21, 30, 17, 1)$
289 : $P_{14498} = (1, 4, 13, 1)$	343 : $P_{16930} = (1, 16, 15, 1)$	397 : $P_{19507} = (18, 0, 18, 1)$
290 : $P_{14522} = (25, 4, 13, 1)$	344 : $P_{17002} = (9, 18, 15, 1)$	398 : $P_{19589} = (4, 3, 18, 1)$
291 : $P_{14525} = (28, 4, 13, 1)$	345 : $P_{17007} = (14, 18, 15, 1)$	399 : $P_{19611} = (26, 3, 18, 1)$
292 : $P_{14531} = (2, 5, 13, 1)$	346 : $P_{17014} = (21, 18, 15, 1)$	400 : $P_{19614} = (29, 3, 18, 1)$
293 : $P_{14545} = (16, 5, 13, 1)$	347 : $P_{17047} = (22, 19, 15, 1)$	401 : $P_{19619} = (2, 4, 18, 1)$
294 : $P_{14552} = (23, 5, 13, 1)$	348 : $P_{17051} = (26, 19, 15, 1)$	402 : $P_{19657} = (8, 5, 18, 1)$
295 : $P_{14610} = (17, 7, 13, 1)$	349 : $P_{17056} = (31, 19, 15, 1)$	403 : $P_{19733} = (20, 7, 18, 1)$
296 : $P_{14724} = (3, 11, 13, 1)$	350 : $P_{17178} = (25, 23, 15, 1)$	404 : $P_{19814} = (5, 10, 18, 1)$
297 : $P_{14728} = (7, 11, 13, 1)$	351 : $P_{17279} = (30, 26, 15, 1)$	405 : $P_{19815} = (6, 10, 18, 1)$
298 : $P_{14736} = (15, 11, 13, 1)$	352 : $P_{17294} = (13, 27, 15, 1)$	406 : $P_{19818} = (9, 10, 18, 1)$
299 : $P_{14780} = (27, 12, 13, 1)$	353 : $P_{17457} = (16, 0, 16, 1)$	407 : $P_{19856} = (15, 11, 18, 1)$
300 : $P_{14785} = (0, 13, 13, 1)$	354 : $P_{17506} = (1, 2, 16, 1)$	408 : $P_{19860} = (19, 11, 18, 1)$
301 : $P_{15051} = (10, 21, 13, 1)$	355 : $P_{17526} = (21, 2, 16, 1)$	409 : $P_{19864} = (23, 11, 18, 1)$
302 : $P_{15053} = (12, 21, 13, 1)$	356 : $P_{17527} = (22, 2, 16, 1)$	410 : $P_{20000} = (31, 15, 18, 1)$
303 : $P_{15060} = (19, 21, 13, 1)$	357 : $P_{17541} = (4, 3, 16, 1)$	411 : $P_{20065} = (0, 18, 18, 1)$
304 : $P_{15195} = (26, 25, 13, 1)$	358 : $P_{17564} = (27, 3, 16, 1)$	412 : $P_{20354} = (1, 27, 18, 1)$
305 : $P_{15311} = (14, 29, 13, 1)$	359 : $P_{17565} = (28, 3, 16, 1)$	413 : $P_{20392} = (7, 28, 18, 1)$
306 : $P_{15381} = (20, 31, 13, 1)$	360 : $P_{17673} = (8, 7, 16, 1)$	414 : $P_{20398} = (13, 28, 18, 1)$
307 : $P_{15383} = (22, 31, 13, 1)$	361 : $P_{17682} = (17, 7, 16, 1)$	415 : $P_{20407} = (22, 28, 18, 1)$
308 : $P_{15390} = (29, 31, 13, 1)$	362 : $P_{17695} = (30, 7, 16, 1)$	416 : $P_{20465} = (16, 30, 18, 1)$
309 : $P_{15407} = (14, 0, 14, 1)$	363 : $P_{17740} = (11, 9, 16, 1)$	417 : $P_{20470} = (21, 30, 18, 1)$
310 : $P_{15436} = (11, 1, 14, 1)$	364 : $P_{17753} = (24, 9, 16, 1)$	418 : $P_{20476} = (27, 30, 18, 1)$
311 : $P_{15446} = (21, 1, 14, 1)$	365 : $P_{17755} = (26, 9, 16, 1)$	419 : $P_{20532} = (19, 0, 19, 1)$

420 : $P_{20554} = (9, 1, 19, 1)$	474 : $P_{22992} = (15, 13, 21, 1)$	528 : $P_{25554} = (17, 29, 23, 1)$
421 : $P_{20568} = (23, 1, 19, 1)$	475 : $P_{23107} = (2, 17, 21, 1)$	529 : $P_{25657} = (24, 0, 24, 1)$
422 : $P_{20576} = (31, 1, 19, 1)$	476 : $P_{23115} = (10, 17, 21, 1)$	530 : $P_{25742} = (13, 3, 24, 1)$
423 : $P_{20675} = (2, 5, 19, 1)$	477 : $P_{23130} = (25, 17, 21, 1)$	531 : $P_{25748} = (19, 3, 24, 1)$
424 : $P_{20684} = (11, 5, 19, 1)$	478 : $P_{23233} = (0, 21, 21, 1)$	532 : $P_{25758} = (29, 3, 24, 1)$
425 : $P_{20685} = (12, 5, 19, 1)$	479 : $P_{23288} = (23, 22, 21, 1)$	533 : $P_{25770} = (9, 4, 24, 1)$
426 : $P_{20745} = (8, 7, 19, 1)$	480 : $P_{23391} = (30, 25, 21, 1)$	534 : $P_{26010} = (25, 11, 24, 1)$
427 : $P_{20758} = (21, 7, 19, 1)$	481 : $P_{23436} = (11, 27, 21, 1)$	535 : $P_{26149} = (4, 16, 24, 1)$
428 : $P_{20763} = (26, 7, 19, 1)$	482 : $P_{23438} = (13, 27, 21, 1)$	536 : $P_{26151} = (6, 16, 24, 1)$
429 : $P_{20772} = (3, 8, 19, 1)$	483 : $P_{23454} = (29, 27, 21, 1)$	537 : $P_{26163} = (18, 16, 24, 1)$
430 : $P_{20826} = (25, 9, 19, 1)$	484 : $P_{23573} = (20, 31, 21, 1)$	538 : $P_{26294} = (21, 20, 24, 1)$
431 : $P_{20903} = (6, 12, 19, 1)$	485 : $P_{23607} = (22, 0, 22, 1)$	539 : $P_{26348} = (11, 22, 24, 1)$
432 : $P_{21017} = (24, 15, 19, 1)$	486 : $P_{23635} = (18, 1, 22, 1)$	540 : $P_{26349} = (12, 22, 24, 1)$
433 : $P_{21061} = (4, 17, 19, 1)$	487 : $P_{23819} = (10, 7, 22, 1)$	541 : $P_{26354} = (17, 22, 24, 1)$
434 : $P_{21121} = (0, 19, 19, 1)$	488 : $P_{23832} = (23, 7, 22, 1)$	542 : $P_{26401} = (0, 24, 24, 1)$
435 : $P_{21457} = (16, 29, 19, 1)$	489 : $P_{23835} = (26, 7, 22, 1)$	543 : $P_{26466} = (1, 26, 24, 1)$
436 : $P_{21458} = (17, 29, 19, 1)$	490 : $P_{23843} = (2, 8, 22, 1)$	544 : $P_{26470} = (5, 26, 24, 1)$
437 : $P_{21469} = (28, 29, 19, 1)$	491 : $P_{24105} = (8, 16, 22, 1)$	545 : $P_{26495} = (30, 26, 24, 1)$
438 : $P_{21483} = (10, 30, 19, 1)$	492 : $P_{24108} = (11, 16, 22, 1)$	546 : $P_{26571} = (10, 29, 24, 1)$
439 : $P_{21488} = (15, 30, 19, 1)$	493 : $P_{24116} = (19, 16, 22, 1)$	547 : $P_{26608} = (15, 30, 24, 1)$
440 : $P_{21500} = (27, 30, 19, 1)$	494 : $P_{24261} = (4, 21, 22, 1)$	548 : $P_{26645} = (20, 31, 24, 1)$
441 : $P_{21557} = (20, 0, 20, 1)$	495 : $P_{24269} = (12, 21, 22, 1)$	549 : $P_{26648} = (23, 31, 24, 1)$
442 : $P_{21584} = (15, 1, 20, 1)$	496 : $P_{24286} = (29, 21, 22, 1)$	550 : $P_{26653} = (28, 31, 24, 1)$
443 : $P_{21615} = (14, 2, 20, 1)$	497 : $P_{24289} = (0, 22, 22, 1)$	551 : $P_{26682} = (25, 0, 25, 1)$
444 : $P_{21619} = (18, 2, 20, 1)$	498 : $P_{24381} = (28, 24, 22, 1)$	552 : $P_{26698} = (9, 1, 25, 1)$
445 : $P_{21631} = (30, 2, 20, 1)$	499 : $P_{24409} = (24, 25, 22, 1)$	553 : $P_{26722} = (1, 2, 25, 1)$
446 : $P_{21760} = (31, 6, 20, 1)$	500 : $P_{24415} = (30, 25, 22, 1)$	554 : $P_{26750} = (29, 2, 25, 1)$
447 : $P_{22050} = (1, 16, 20, 1)$	501 : $P_{24416} = (31, 25, 22, 1)$	555 : $P_{26751} = (30, 2, 25, 1)$
448 : $P_{22057} = (8, 16, 20, 1)$	502 : $P_{24422} = (5, 26, 22, 1)$	556 : $P_{26770} = (17, 3, 25, 1)$
449 : $P_{22074} = (25, 16, 20, 1)$	503 : $P_{24450} = (1, 27, 22, 1)$	557 : $P_{26856} = (7, 6, 25, 1)$
450 : $P_{22107} = (26, 17, 20, 1)$	504 : $P_{24463} = (14, 27, 22, 1)$	558 : $P_{26867} = (18, 6, 25, 1)$
451 : $P_{22177} = (0, 20, 20, 1)$	505 : $P_{24469} = (20, 27, 22, 1)$	559 : $P_{26868} = (19, 6, 25, 1)$
452 : $P_{22290} = (17, 23, 20, 1)$	506 : $P_{24522} = (9, 29, 22, 1)$	560 : $P_{26904} = (23, 7, 25, 1)$
453 : $P_{22292} = (19, 23, 20, 1)$	507 : $P_{24632} = (23, 0, 23, 1)$	561 : $P_{26981} = (4, 10, 25, 1)$
454 : $P_{22294} = (21, 23, 20, 1)$	508 : $P_{24691} = (18, 2, 23, 1)$	562 : $P_{27081} = (8, 13, 25, 1)$
455 : $P_{22310} = (5, 24, 20, 1)$	509 : $P_{24739} = (2, 4, 23, 1)$	563 : $P_{27083} = (10, 13, 25, 1)$
456 : $P_{22311} = (6, 24, 20, 1)$	510 : $P_{24762} = (25, 4, 23, 1)$	564 : $P_{27088} = (15, 13, 25, 1)$
457 : $P_{22332} = (27, 24, 20, 1)$	511 : $P_{24768} = (31, 4, 23, 1)$	565 : $P_{27332} = (3, 21, 25, 1)$
458 : $P_{22440} = (7, 28, 20, 1)$	512 : $P_{24808} = (7, 6, 23, 1)$	566 : $P_{27343} = (14, 21, 25, 1)$
459 : $P_{22475} = (10, 29, 20, 1)$	513 : $P_{24919} = (22, 9, 23, 1)$	567 : $P_{27353} = (24, 21, 25, 1)$
460 : $P_{22476} = (11, 29, 20, 1)$	514 : $P_{24994} = (1, 12, 23, 1)$	568 : $P_{27372} = (11, 22, 25, 1)$
461 : $P_{22493} = (28, 29, 20, 1)$	515 : $P_{24996} = (3, 12, 23, 1)$	569 : $P_{27457} = (0, 25, 25, 1)$
462 : $P_{22510} = (13, 30, 20, 1)$	516 : $P_{25007} = (14, 12, 23, 1)$	570 : $P_{27569} = (16, 28, 25, 1)$
463 : $P_{22582} = (21, 0, 21, 1)$	517 : $P_{25068} = (11, 14, 23, 1)$	571 : $P_{27575} = (22, 28, 25, 1)$
464 : $P_{22722} = (1, 5, 21, 1)$	518 : $P_{25095} = (6, 15, 23, 1)$	572 : $P_{27579} = (26, 28, 25, 1)$
465 : $P_{22729} = (8, 5, 21, 1)$	519 : $P_{25110} = (21, 15, 23, 1)$	573 : $P_{27707} = (26, 0, 26, 1)$
466 : $P_{22733} = (12, 5, 21, 1)$	520 : $P_{25117} = (28, 15, 23, 1)$	574 : $P_{27834} = (25, 4, 26, 1)$
467 : $P_{22756} = (3, 6, 21, 1)$	521 : $P_{25257} = (8, 20, 23, 1)$	575 : $P_{27939} = (2, 8, 26, 1)$
468 : $P_{22779} = (26, 6, 21, 1)$	522 : $P_{25345} = (0, 23, 23, 1)$	576 : $P_{27960} = (23, 8, 26, 1)$
469 : $P_{22784} = (31, 6, 21, 1)$	523 : $P_{25457} = (16, 26, 23, 1)$	577 : $P_{27966} = (29, 8, 26, 1)$
470 : $P_{22835} = (18, 8, 21, 1)$	524 : $P_{25461} = (20, 26, 23, 1)$	578 : $P_{28005} = (4, 10, 26, 1)$
471 : $P_{22856} = (7, 9, 21, 1)$	525 : $P_{25471} = (30, 26, 23, 1)$	579 : $P_{28006} = (5, 10, 26, 1)$
472 : $P_{22871} = (22, 9, 21, 1)$	526 : $P_{25542} = (5, 29, 23, 1)$	580 : $P_{28012} = (11, 10, 26, 1)$
473 : $P_{22873} = (24, 9, 21, 1)$	527 : $P_{25546} = (9, 29, 23, 1)$	581 : $P_{28136} = (7, 14, 26, 1)$

582 : $P_{28164} = (3, 15, 26, 1)$	624 : $P_{30102} = (21, 11, 28, 1)$	666 : $P_{31890} = (17, 3, 30, 1)$
583 : $P_{28181} = (20, 15, 26, 1)$	625 : $P_{30106} = (25, 11, 28, 1)$	667 : $P_{31900} = (27, 3, 30, 1)$
584 : $P_{28185} = (24, 15, 26, 1)$	626 : $P_{30117} = (4, 12, 28, 1)$	668 : $P_{31939} = (2, 5, 30, 1)$
585 : $P_{28391} = (6, 22, 26, 1)$	627 : $P_{30119} = (6, 12, 28, 1)$	669 : $P_{32152} = (23, 11, 30, 1)$
586 : $P_{28399} = (14, 22, 26, 1)$	628 : $P_{30127} = (14, 12, 28, 1)$	670 : $P_{32233} = (8, 14, 30, 1)$
587 : $P_{28415} = (30, 22, 26, 1)$	629 : $P_{30274} = (1, 17, 28, 1)$	671 : $P_{32236} = (11, 14, 30, 1)$
588 : $P_{28434} = (17, 23, 26, 1)$	630 : $P_{30283} = (10, 17, 28, 1)$	672 : $P_{32238} = (13, 14, 30, 1)$
589 : $P_{28468} = (19, 24, 26, 1)$	631 : $P_{30299} = (26, 17, 28, 1)$	673 : $P_{32346} = (25, 17, 30, 1)$
590 : $P_{28513} = (0, 26, 26, 1)$	632 : $P_{30334} = (29, 18, 28, 1)$	674 : $P_{32375} = (22, 18, 30, 1)$
591 : $P_{28554} = (9, 27, 26, 1)$	633 : $P_{30372} = (3, 20, 28, 1)$	675 : $P_{32411} = (26, 19, 30, 1)$
592 : $P_{28558} = (13, 27, 26, 1)$	634 : $P_{30374} = (5, 20, 28, 1)$	676 : $P_{32421} = (4, 20, 30, 1)$
593 : $P_{28576} = (31, 27, 26, 1)$	635 : $P_{30387} = (18, 20, 28, 1)$	677 : $P_{32422} = (5, 20, 30, 1)$
594 : $P_{28701} = (28, 31, 26, 1)$	636 : $P_{30553} = (24, 25, 28, 1)$	678 : $P_{32438} = (21, 20, 30, 1)$
595 : $P_{28732} = (27, 0, 27, 1)$	637 : $P_{30624} = (31, 27, 28, 1)$	679 : $P_{32552} = (7, 24, 30, 1)$
596 : $P_{28852} = (19, 4, 27, 1)$	638 : $P_{30625} = (0, 28, 28, 1)$	680 : $P_{32557} = (12, 24, 30, 1)$
597 : $P_{28900} = (3, 6, 27, 1)$	639 : $P_{30782} = (29, 0, 29, 1)$	681 : $P_{32564} = (19, 24, 30, 1)$
598 : $P_{29190} = (5, 15, 27, 1)$	640 : $P_{30816} = (31, 1, 29, 1)$	682 : $P_{32737} = (0, 30, 30, 1)$
599 : $P_{29206} = (21, 15, 27, 1)$	641 : $P_{30890} = (9, 4, 29, 1)$	683 : $P_{32832} = (31, 0, 31, 1)$
600 : $P_{29216} = (31, 15, 27, 1)$	642 : $P_{30900} = (19, 4, 29, 1)$	684 : $P_{32892} = (27, 2, 31, 1)$
601 : $P_{29218} = (1, 16, 27, 1)$	643 : $P_{30911} = (30, 4, 29, 1)$	685 : $P_{32916} = (19, 3, 31, 1)$
602 : $P_{29223} = (6, 16, 27, 1)$	644 : $P_{30979} = (2, 7, 29, 1)$	686 : $P_{33060} = (3, 8, 31, 1)$
603 : $P_{29240} = (23, 16, 27, 1)$	645 : $P_{30994} = (17, 7, 29, 1)$	687 : $P_{33075} = (18, 8, 31, 1)$
604 : $P_{29253} = (4, 17, 27, 1)$	646 : $P_{30997} = (20, 7, 29, 1)$	688 : $P_{33082} = (25, 8, 31, 1)$
605 : $P_{29262} = (13, 17, 27, 1)$	647 : $P_{31140} = (3, 12, 29, 1)$	689 : $P_{33100} = (11, 9, 31, 1)$
606 : $P_{29273} = (24, 17, 27, 1)$	648 : $P_{31170} = (1, 13, 29, 1)$	690 : $P_{33117} = (28, 9, 31, 1)$
607 : $P_{29303} = (22, 18, 27, 1)$	649 : $P_{31175} = (6, 13, 29, 1)$	691 : $P_{33119} = (30, 9, 31, 1)$
608 : $P_{29306} = (25, 18, 27, 1)$	650 : $P_{31179} = (10, 13, 29, 1)$	692 : $P_{33168} = (15, 11, 31, 1)$
609 : $P_{29310} = (29, 18, 27, 1)$	651 : $P_{31388} = (27, 19, 29, 1)$	693 : $P_{33218} = (1, 13, 31, 1)$
610 : $P_{29389} = (12, 21, 27, 1)$	652 : $P_{31411} = (18, 20, 29, 1)$	694 : $P_{33253} = (4, 14, 31, 1)$
611 : $P_{29439} = (30, 22, 27, 1)$	653 : $P_{31471} = (14, 22, 29, 1)$	695 : $P_{33256} = (7, 14, 31, 1)$
612 : $P_{29539} = (2, 26, 27, 1)$	654 : $P_{31472} = (15, 22, 29, 1)$	696 : $P_{33262} = (13, 14, 31, 1)$
613 : $P_{29569} = (0, 27, 27, 1)$	655 : $P_{31480} = (23, 22, 29, 1)$	697 : $P_{33489} = (16, 21, 31, 1)$
614 : $P_{29609} = (8, 28, 27, 1)$	656 : $P_{31510} = (21, 23, 29, 1)$	698 : $P_{33497} = (24, 21, 31, 1)$
615 : $P_{29615} = (14, 28, 27, 1)$	657 : $P_{31529} = (8, 24, 29, 1)$	699 : $P_{33502} = (29, 21, 31, 1)$
616 : $P_{29627} = (26, 28, 27, 1)$	658 : $P_{31533} = (12, 24, 29, 1)$	700 : $P_{33575} = (6, 24, 31, 1)$
617 : $P_{29757} = (28, 0, 28, 1)$	659 : $P_{31549} = (28, 24, 29, 1)$	701 : $P_{33635} = (2, 26, 31, 1)$
618 : $P_{29808} = (15, 2, 28, 1)$	660 : $P_{31681} = (0, 29, 29, 1)$	702 : $P_{33645} = (12, 26, 31, 1)$
619 : $P_{29815} = (22, 2, 28, 1)$	661 : $P_{31807} = (30, 0, 30, 1)$	703 : $P_{33653} = (20, 26, 31, 1)$
620 : $P_{29820} = (27, 2, 28, 1)$	662 : $P_{31824} = (15, 1, 30, 1)$	704 : $P_{33793} = (0, 31, 31, 1)$
621 : $P_{29940} = (19, 6, 28, 1)$	663 : $P_{31827} = (18, 1, 30, 1)$	
622 : $P_{30058} = (9, 10, 28, 1)$	664 : $P_{31837} = (28, 1, 30, 1)$	
623 : $P_{30088} = (7, 11, 28, 1)$	665 : $P_{31882} = (9, 3, 30, 1)$	