Rank-69 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

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

(1, 1, 1, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)
The point rank of the equation over GF(16) is 135729

General information

Number of lines	25
Number of points	401
Number of singular points	1
Number of Eckardt points	0
Number of double points	0
Number of single points	400
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	17^{25}
Type of lines on points	$25, 1^{400}$

Singular Points

The surface has 1 singular points:

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

The 25 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69921} = \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{69921} = \mathbf{Pl}(0,1,0,1,0,0)_{49}$$

$$\ell_1 = \begin{bmatrix} 1 & \delta^2 & \delta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{10100} = \begin{bmatrix} 1 & 4 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{10100} = \mathbf{Pl}(0,2,0,4,1,0)_{895}$$

$$\ell_2 = \begin{bmatrix} 1 & \delta^5 & \delta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{64427} = \begin{bmatrix} 1 & 11 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{64427} = \mathbf{Pl}(0,14,0,11,1,0)_{1124}$$

$$\ell_3 = \begin{bmatrix} 1 & \delta^2 & \delta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{49412} = \begin{bmatrix} 1 & 4 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{49412} = \mathbf{Pl}(0,11,0,4,1,0)_{904}$$

$$\ell_4 = \begin{bmatrix} 1 & \delta^6 & \delta^9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{26207} = \begin{bmatrix} 1 & 15 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{26207} = \mathbf{Pl}(0,5,0,15,1,0)_{1239}$$

$$\ell_5 = \begin{bmatrix} 1 & \delta^4 & \delta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{20201} = \begin{bmatrix} 1 & 9 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{20201} = \mathbf{Pl}(0,4,0,9,1,0)_{1052}$$

$$\ell_6 = \begin{bmatrix} 1 & \delta^{12} & \delta^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{36035} = \begin{bmatrix} 1 & 3 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{36035} = \mathbf{Pl}(0,8,0,3,1,0)_{870}$$

$$\ell_7 = \begin{bmatrix} 1 & \delta^4 & \delta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{46409} = \begin{bmatrix} 1 & 9 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{46409} = \mathbf{Pl}(0,10,0,9,1,0)_{1058}$$

$$\ell_8 = \begin{bmatrix} 1 & \delta^{10} & \delta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{11738} = \begin{bmatrix} 1 & 10 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{11738} = \mathbf{Pl}(0,2,0,10,1,0)_{1081}$$

$$\ell_9 = \begin{bmatrix} 1 & \delta^2 & \delta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{40676} = \begin{bmatrix} 1 & 4 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{40676} = \mathbf{Pl}(0,9,0,4,1,0)_{902}$$

$$\ell_{10} = \begin{bmatrix} 1 & \delta^8 & \delta & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12830} = \begin{bmatrix} 1 & 14 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12830} = \mathbf{Pl}(0,2,0,14,1,0)_{1205}$$

$$\ell_{11} = \begin{bmatrix} 1 & \delta^9 & \delta^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{67157} = \begin{bmatrix} 1 & 5 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{67157} = \mathbf{Pl}(0,15,0,5,1,0)_{939}$$

$$\ell_{12} = \begin{bmatrix} 1 & \delta^5 & \delta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{20747} = \begin{bmatrix} 1 & 11 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{20747} = \mathbf{Pl}(0,4,0,11,1,0)_{1114}$$

$$\ell_{13} = \begin{bmatrix} 1 & \delta^8 & \delta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{52142} = \begin{bmatrix} 1 & 14 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{52142} = \mathbf{Pl}(0,11,0,14,1,0)_{1214}$$

$$\ell_{14} = \begin{bmatrix} 1 & \delta^8 & \delta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{43406} = \begin{bmatrix} 1 & 14 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{43406} = \mathbf{Pl}(0,9,0,14,1,0)_{1212}$$

$$\ell_{15} = \begin{bmatrix} 0 & 1 & \delta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70091} = \begin{bmatrix} 0 & 1 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70091} = \mathbf{Pl}(0,11,0,1,0,0)_{59}$$

$$\ell_{16} = \begin{bmatrix} 1 & \delta^5 & \delta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{46955} = \begin{bmatrix} 1 & 11 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{46955} = \mathbf{Pl}(0,10,0,11,1,0)_{1120}$$

$$\ell_{17} = \begin{bmatrix} 0 & 1 & \delta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70074} = \begin{bmatrix} 0 & 1 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{70074} = \mathbf{Pl}(0,10,0,1,0,0)_{58}$$

$$\ell_{18} = \begin{bmatrix} 1 & \delta^{10} & \delta^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{51050} = \begin{bmatrix} 1 & 10 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{51050} = \mathbf{Pl}(0,11,0,10,1,0)_{1090}$$

$$\ell_{19} = \begin{bmatrix} 1 & \delta & \delta^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{18290} = \begin{bmatrix} 1 & 2 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{18290} = \mathbf{Pl}(0,4,0,2,1,0)_{835}$$

$$\ell_{20} = \begin{bmatrix} 1 & \delta^4 & \delta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{63881} = \begin{bmatrix} 1 & 9 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{63881} = \mathbf{Pl}(0,14,0,9,1,0)_{1062}$$

$$\ell_{21} = \begin{bmatrix} 1 & \delta & \delta^8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{61970} = \begin{bmatrix} 1 & 2 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{61970} = \mathbf{Pl}(0,14,0,2,1,0)_{845}$$

$$\ell_{22} = \begin{bmatrix} 1 & \delta^3 & \delta^{12} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15560} = \begin{bmatrix} 1 & 8 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15560} = \mathbf{Pl}(0,3,0,8,1,0)_{1020}$$

$$\ell_{23} = \begin{bmatrix} 1 & \delta & \delta^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{44498} = \begin{bmatrix} 1 & 2 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{44498} = \mathbf{Pl}(0,10,0,2,1,0)_{841}$$

$$\ell_{24} = \begin{bmatrix} 1 & \delta^{10} & \delta^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{42314} = \begin{bmatrix} 1 & 10 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{42314} = \mathbf{Pl}(0,9,0,10,1,0)_{1088}$$

Rank of lines: (69921, 10100, 64427, 49412, 26207, 20201, 36035, 46409, 11738, 40676, 12830, 67157, 20747, 52142, 43406, 70091, 46955, 70074, 51050, 18290, 63881, 61970, 15560, 44498, 42314)

Rank of points on Klein quadric: (49, 895, 1124, 904, 1239, 1052, 870, 1058, 1081, 902, 1205, 939, 1114, 1214, 1212, 59, 1120, 58, 1090, 835, 1062, 845, 1020, 841, 1088)

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 400 single points:
The single points on the surface are:

$0 : P_{35} = (0,1,1,0)$ lies on line ℓ_0

$1 : P_{63} = (12,2,1,0)$ lies on line ℓ_1

$2 : P_{74} = (7,3,1,0)$ lies on line ℓ_2

$3 : P_{77} = (10,3,1,0)$ lies on line ℓ_3

$4 : P_{82} = (15,3,1,0)$ lies on line ℓ_4

$5 : P_{89} = (6,4,1,0)$ lies on line ℓ_5

$6 : P_{102} = (3,5,1,0)$ lies on line ℓ_6

$7 : P_{110} = (11,5,1,0)$ lies on line ℓ_7

$8 : P_{111} = (12,5,1,0)$ lies on line ℓ_8

$9 : P_{128} = (13,6,1,0)$ lies on line ℓ_9

$10 : P_{143} = (12,7,1,0)$ lies on line ℓ_{10}

$11 : P_{152} = (5,8,1,0)$ lies on line ℓ_{11}

$12 : P_{153} = (6,8,1,0)$ lies on line ℓ_{12}

$13 : P_{157} = (10,8,1,0)$ lies on line ℓ_{13}

$14 : P_{176} = (13,9,1,0)$ lies on line ℓ_{14}

$15 : P_{179} = (0,10,1,0)$ lies on line ℓ_{15}

$16 : P_{190} = (11,10,1,0)$ lies on line ℓ_{16}

$17 : P_{195} = (0,11,1,0)$ lies on line ℓ_{17}

$18 : P_{205} = (10,11,1,0)$ lies on line ℓ_{18}

$19 : P_{217} = (6,12,1,0)$ lies on line ℓ_{19}

$20 : P_{234} = (7,13,1,0)$ lies on line ℓ_{20}

$21 : P_{250} = (7,14,1,0)$ lies on line ℓ_{21}

$22 : P_{267} = (8,15,1,0)$ lies on line ℓ_{22}

$23 : P_{270} = (11,15,1,0)$ lies on line ℓ_{23}

$24 : P_{272} = (13,15,1,0)$ lies on line ℓ_{24}

$25 : P_{546} = (0,1,1,1)$ lies on line ℓ_0

$26 : P_{573} = (12,2,1,1)$ lies on line ℓ_1

$27 : P_{584} = (7,3,1,1)$ lies on line ℓ_2

$28 : P_{587} = (10,3,1,1)$ lies on line ℓ_3

$29 : P_{592} = (15,3,1,1)$ lies on line ℓ_4

$30 : P_{599} = (6,4,1,1)$ lies on line ℓ_5

$31 : P_{612} = (3,5,1,1)$ lies on line ℓ_6

$32 : P_{620} = (11,5,1,1)$ lies on line ℓ_7

$33 : P_{621} = (12,5,1,1)$ lies on line ℓ_8

$34 : P_{638} = (13,6,1,1)$ lies on line ℓ_9

$35 : P_{653} = (12,7,1,1)$ lies on line ℓ_{10}

$36 : P_{662} = (5,8,1,1)$ lies on line ℓ_{11}

$37 : P_{663} = (6,8,1,1)$ lies on line ℓ_{12}

$38 : P_{667} = (10,8,1,1)$ lies on line ℓ_{13}

$39 : P_{686} = (13,9,1,1)$ lies on line ℓ_{14}

$40 : P_{689} = (0,10,1,1)$ lies on line ℓ_{15}

$41 : P_{700} = (11,10,1,1)$ lies on line ℓ_{16}

$42 : P_{705} = (0,11,1,1)$ lies on line ℓ_{17}

$43 : P_{715} = (10,11,1,1)$ lies on line ℓ_{18}

$44 : P_{727} = (6,12,1,1)$ lies on line ℓ_{19}

$45 : P_{744} = (7,13,1,1)$ lies on line ℓ_{20}

$46 : P_{760} = (7, 14, 1, 1)$ lies on line ℓ_{21}

$47 : P_{777} = (8, 15, 1, 1)$ lies on line ℓ_{22}

$48 : P_{780} = (11, 15, 1, 1)$ lies on line ℓ_{23}

$49 : P_{782} = (13, 15, 1, 1)$ lies on line ℓ_{24}

$50 : P_{813} = (12, 1, 2, 1)$ lies on line ℓ_{19}

$51 : P_{817} = (0, 2, 2, 1)$ lies on line ℓ_0

$52 : P_{847} = (14, 3, 2, 1)$ lies on line ℓ_{20}

$53 : P_{850} = (1, 4, 2, 1)$ lies on line ℓ_1

$54 : P_{879} = (14, 5, 2, 1)$ lies on line ℓ_{21}

$55 : P_{888} = (7, 6, 2, 1)$ lies on line ℓ_4

$56 : P_{894} = (13, 6, 2, 1)$ lies on line ℓ_3

$57 : P_{895} = (14, 6, 2, 1)$ lies on line ℓ_2

$58 : P_{900} = (3, 7, 2, 1)$ lies on line ℓ_{24}

$59 : P_{906} = (9, 7, 2, 1)$ lies on line ℓ_{22}

$60 : P_{912} = (15, 7, 2, 1)$ lies on line ℓ_{23}

$61 : P_{925} = (12, 8, 2, 1)$ lies on line ℓ_5

$62 : P_{939} = (10, 9, 2, 1)$ lies on line ℓ_{11}

$63 : P_{941} = (12, 9, 2, 1)$ lies on line ℓ_{12}

$64 : P_{942} = (13, 9, 2, 1)$ lies on line ℓ_{13}

$65 : P_{946} = (1, 10, 2, 1)$ lies on line ℓ_8

$66 : P_{951} = (6, 10, 2, 1)$ lies on line ℓ_6

$67 : P_{960} = (15, 10, 2, 1)$ lies on line ℓ_7

$68 : P_{964} = (3, 11, 2, 1)$ lies on line ℓ_{14}

$69 : P_{980} = (3, 12, 2, 1)$ lies on line ℓ_9

$70 : P_{993} = (0, 13, 2, 1)$ lies on line ℓ_{15}

$71 : P_{1008} = (15, 13, 2, 1)$ lies on line ℓ_{16}

$72 : P_{1010} = (1, 14, 2, 1)$ lies on line ℓ_{10}

$73 : P_{1025} = (0, 15, 2, 1)$ lies on line ℓ_{17}

$74 : P_{1038} = (13, 15, 2, 1)$ lies on line ℓ_{18}

$75 : P_{1064} = (7, 1, 3, 1)$ lies on line ℓ_{13}

$76 : P_{1067} = (10, 1, 3, 1)$ lies on line ℓ_{12}

$77 : P_{1072} = (15, 1, 3, 1)$ lies on line ℓ_{11}

$78 : P_{1087} = (14, 2, 3, 1)$ lies on line ℓ_{14}

$79 : P_{1089} = (0, 3, 3, 1)$ lies on line ℓ_0

$80 : P_{1105} = (0, 4, 3, 1)$ lies on line ℓ_{17}

$81 : P_{1112} = (7, 4, 3, 1)$ lies on line ℓ_{18}

$82 : P_{1128} = (7, 5, 3, 1)$ lies on line ℓ_3

$83 : P_{1129} = (8, 5, 3, 1)$ lies on line ℓ_4

$84 : P_{1130} = (9, 5, 3, 1)$ lies on line ℓ_2

$85 : P_{1150} = (13, 6, 3, 1)$ lies on line ℓ_1

$86 : P_{1153} = (0, 7, 3, 1)$ lies on line ℓ_{15}

$87 : P_{1157} = (4, 7, 3, 1)$ lies on line ℓ_{16}

$88 : P_{1170} = (1, 8, 3, 1)$ lies on line ℓ_{22}

$89 : P_{1173} = (4, 8, 3, 1)$ lies on line ℓ_{23}

$90 : P_{1183} = (14, 8, 3, 1)$ lies on line ℓ_{24}

$91 : P_{1198} = (13, 9, 3, 1)$ lies on line ℓ_{10}

$92 : P_{1215} = (14, 10, 3, 1)$ lies on line ℓ_9

$93 : P_{1226} = (9, 11, 3, 1)$ lies on line ℓ_{21}

$94 : P_{1243} = (10, 12, 3, 1)$ lies on line ℓ_5

$95 : P_{1259} = (10, 13, 3, 1)$ lies on line ℓ_{19}

$96 : P_{1274} = (9, 14, 3, 1)$ lies on line ℓ_{20}

$97 : P_{1285} = (4, 15, 3, 1)$ lies on line ℓ_7

$98 : P_{1286} = (5, 15, 3, 1)$ lies on line ℓ_6

$99 : P_{1294} = (13, 15, 3, 1)$ lies on line ℓ_8

$100 : P_{1319} = (6, 1, 4, 1)$ lies on line ℓ_9

$101 : P_{1330} = (1, 2, 4, 1)$ lies on line ℓ_{19}

$102 : P_{1345} = (0, 3, 4, 1)$ lies on line ℓ_{15}

$103 : P_{1352} = (7, 3, 4, 1)$ lies on line ℓ_{16}

$104 : P_{1361} = (0, 4, 4, 1)$ lies on line ℓ_0

$105 : P_{1379} = (2, 5, 4, 1)$ lies on line ℓ_{10}

$106 : P_{1398} = (5, 6, 4, 1)$ lies on line ℓ_{20}

$107 : P_{1409} = (0, 7, 4, 1)$ lies on line ℓ_{17}

$108 : P_{1412} = (3, 7, 4, 1)$ lies on line ℓ_{18}

$109 : P_{1427} = (2, 8, 4, 1)$ lies on line ℓ_1

$110 : P_{1442} = (1, 9, 4, 1)$ lies on line ℓ_5

$111 : P_{1462} = (5, 10, 4, 1)$ lies on line ℓ_{21}

$112 : P_{1474} = (1, 11, 4, 1)$ lies on line ℓ_{12}

$113 : P_{1476} = (3, 11, 4, 1)$ lies on line ℓ_{13}

$114 : P_{1486} = (13, 11, 4, 1)$ lies on line ℓ_{11}

$115 : P_{1492} = (3, 12, 4, 1)$ lies on line ℓ_3

$116 : P_{1494} = (5, 12, 4, 1)$ lies on line ℓ_2

$117 : P_{1503} = (14, 12, 4, 1)$ lies on line ℓ_4

$118 : P_{1507} = (2, 13, 4, 1)$ lies on line ℓ_8

$119 : P_{1512} = (7, 13, 4, 1)$ lies on line ℓ_7

$120 : P_{1517} = (12, 13, 4, 1)$ lies on line ℓ_6

$121 : P_{1527} = (6, 14, 4, 1)$ lies on line ℓ_{24}

$122 : P_{1528} = (7, 14, 4, 1)$ lies on line ℓ_{23}

$123 : P_{1532} = (11, 14, 4, 1)$ lies on line ℓ_{22}

$124 : P_{1543} = (6, 15, 4, 1)$ lies on line ℓ_{14}

$125 : P_{1572} = (3, 1, 5, 1)$ lies on line ℓ_{22}

$126 : P_{1580} = (11, 1, 5, 1)$ lies on line ℓ_{24}

$127 : P_{1581} = (12, 1, 5, 1)$ lies on line ℓ_{23}

$128 : P_{1599} = (14, 2, 5, 1)$ lies on line ℓ_{10}

$129 : P_{1608} = (7, 3, 5, 1)$ lies on line ℓ_{12}

$130 : P_{1609} = (8, 3, 5, 1)$ lies on line ℓ_{11}

$131 : P_{1610} = (9, 3, 5, 1)$ lies on line ℓ_{13}

$132 : P_{1619} = (2, 4, 5, 1)$ lies on line ℓ_{21}

$133 : P_{1633} = (0, 5, 5, 1)$ lies on line ℓ_0

$134 : P_{1660} = (11, 6, 5, 1)$ lies on line ℓ_{14}

$135 : P_{1676} = (11, 7, 5, 1)$ lies on line ℓ_9

$136 : P_{1693} = (12, 8, 5, 1)$ lies on line ℓ_7

$137 : P_{1695} = (14, 8, 5, 1)$ lies on line ℓ_8

$138 : P_{1696} = (15, 8, 5, 1)$ lies on line ℓ_6

$139 : P_{1697} = (0, 9, 5, 1)$ lies on line ℓ_{15}

$140 : P_{1709} = (12, 9, 5, 1)$ lies on line ℓ_{16}

$141 : P_{1727} = (14, 10, 5, 1)$ lies on line ℓ_1

$142 : P_{1731} = (2, 11, 5, 1)$ lies on line ℓ_{20}

$143 : P_{1745} = (0, 12, 5, 1)$ lies on line ℓ_{17}

$144 : P_{1754} = (9, 12, 5, 1)$ lies on line ℓ_{18}

$145 : P_{1768} = (7, 13, 5, 1)$ lies on line ℓ_5

$146 : P_{1784} = (7, 14, 5, 1)$ lies on line ℓ_{19}

$147 : P_{1794} = (1, 15, 5, 1)$ lies on line ℓ_4

$148 : P_{1795} = (2, 15, 5, 1)$ lies on line ℓ_2

$149 : P_{1802} = (9, 15, 5, 1)$ lies on line ℓ_3

$150 : P_{1838} = (13, 1, 6, 1)$ lies on line ℓ_5

$151 : P_{1848} = (7, 2, 6, 1)$ lies on line ℓ_{11}

$152 : P_{1854} = (13, 2, 6, 1)$ lies on line ℓ_{12}

$153 : P_{1855} = (14, 2, 6, 1)$ lies on line ℓ_{13}

$154 : P_{1870} = (13, 3, 6, 1)$ lies on line ℓ_{19}
$155 : P_{1878} = (5, 4, 6, 1)$ lies on line ℓ_{14}
$156 : P_{1900} = (11, 5, 6, 1)$ lies on line ℓ_{20}
$157 : P_{1905} = (0, 6, 6, 1)$ lies on line ℓ_0
$158 : P_{1924} = (3, 7, 6, 1)$ lies on line ℓ_8
$159 : P_{1929} = (8, 7, 6, 1)$ lies on line ℓ_7
$160 : P_{1931} = (10, 7, 6, 1)$ lies on line ℓ_6
$161 : P_{1937} = (0, 8, 6, 1)$ lies on line ℓ_{17}
$162 : P_{1951} = (14, 8, 6, 1)$ lies on line ℓ_{18}
$163 : P_{1955} = (2, 9, 6, 1)$ lies on line ℓ_{22}
$164 : P_{1958} = (5, 9, 6, 1)$ lies on line ℓ_{24}
$165 : P_{1961} = (8, 9, 6, 1)$ lies on line ℓ_{23}
$166 : P_{1978} = (9, 10, 6, 1)$ lies on line ℓ_4
$167 : P_{1980} = (11, 10, 6, 1)$ lies on line ℓ_2
$168 : P_{1983} = (14, 10, 6, 1)$ lies on line ℓ_3
$169 : P_{1988} = (3, 11, 6, 1)$ lies on line ℓ_{10}
$170 : P_{2004} = (3, 12, 6, 1)$ lies on line ℓ_1
$171 : P_{2022} = (5, 13, 6, 1)$ lies on line ℓ_9
$172 : P_{2033} = (0, 14, 6, 1)$ lies on line ℓ_{15}
$173 : P_{2041} = (8, 14, 6, 1)$ lies on line ℓ_{16}
$174 : P_{2060} = (11, 15, 6, 1)$ lies on line ℓ_{21}
$175 : P_{2093} = (12, 1, 7, 1)$ lies on line ℓ_{21}
$176 : P_{2100} = (3, 2, 7, 1)$ lies on line ℓ_7
$177 : P_{2106} = (9, 2, 7, 1)$ lies on line ℓ_6
$178 : P_{2112} = (15, 2, 7, 1)$ lies on line ℓ_8
$179 : P_{2113} = (0, 3, 7, 1)$ lies on line ℓ_{17}
$180 : P_{2117} = (4, 3, 7, 1)$ lies on line ℓ_{18}
$181 : P_{2129} = (0, 4, 7, 1)$ lies on line ℓ_{15}
$182 : P_{2132} = (3, 4, 7, 1)$ lies on line ℓ_{16}
$183 : P_{2156} = (11, 5, 7, 1)$ lies on line ℓ_5
$184 : P_{2164} = (3, 6, 7, 1)$ lies on line ℓ_{23}
$185 : P_{2169} = (8, 6, 7, 1)$ lies on line ℓ_{24}
$186 : P_{2171} = (10, 6, 7, 1)$ lies on line ℓ_{22}
$187 : P_{2177} = (0, 7, 7, 1)$ lies on line ℓ_0
$188 : P_{2205} = (12, 8, 7, 1)$ lies on line ℓ_{20}
$189 : P_{2213} = (4, 9, 7, 1)$ lies on line ℓ_3
$190 : P_{2215} = (6, 9, 7, 1)$ lies on line ℓ_4
$191 : P_{2221} = (12, 9, 7, 1)$ lies on line ℓ_2
$192 : P_{2227} = (2, 10, 7, 1)$ lies on line ℓ_{11}
$193 : P_{2229} = (4, 10, 7, 1)$ lies on line ℓ_{13}
$194 : P_{2236} = (11, 10, 7, 1)$ lies on line ℓ_{12}
$195 : P_{2249} = (8, 11, 7, 1)$ lies on line ℓ_9
$196 : P_{2272} = (15, 12, 7, 1)$ lies on line ℓ_{10}
$197 : P_{2281} = (8, 13, 7, 1)$ lies on line ℓ_{14}
$198 : P_{2304} = (15, 14, 7, 1)$ lies on line ℓ_1
$199 : P_{2316} = (11, 15, 7, 1)$ lies on line ℓ_{19}
$200 : P_{2342} = (5, 1, 8, 1)$ lies on line ℓ_4
$201 : P_{2343} = (6, 1, 8, 1)$ lies on line ℓ_3
$202 : P_{2347} = (10, 1, 8, 1)$ lies on line ℓ_2
$203 : P_{2365} = (12, 2, 8, 1)$ lies on line ℓ_9
$204 : P_{2370} = (1, 3, 8, 1)$ lies on line ℓ_6
$205 : P_{2373} = (4, 3, 8, 1)$ lies on line ℓ_8
$206 : P_{2383} = (14, 3, 8, 1)$ lies on line ℓ_7
$207 : P_{2387} = (2, 4, 8, 1)$ lies on line ℓ_{19}

$208 : P_{2413} = (12, 5, 8, 1)$ lies on line ℓ_{24}
$209 : P_{2415} = (14, 5, 8, 1)$ lies on line ℓ_{23}
$210 : P_{2416} = (15, 5, 8, 1)$ lies on line ℓ_{22}
$211 : P_{2417} = (0, 6, 8, 1)$ lies on line ℓ_{15}
$212 : P_{2431} = (14, 6, 8, 1)$ lies on line ℓ_{16}
$213 : P_{2445} = (12, 7, 8, 1)$ lies on line ℓ_{14}
$214 : P_{2449} = (0, 8, 8, 1)$ lies on line ℓ_0
$215 : P_{2469} = (4, 9, 8, 1)$ lies on line ℓ_1
$216 : P_{2485} = (4, 10, 8, 1)$ lies on line ℓ_{10}
$217 : P_{2499} = (2, 11, 8, 1)$ lies on line ℓ_5
$218 : P_{2523} = (10, 12, 8, 1)$ lies on line ℓ_{20}
$219 : P_{2539} = (10, 13, 8, 1)$ lies on line ℓ_{21}
$220 : P_{2545} = (0, 14, 8, 1)$ lies on line ℓ_{17}
$221 : P_{2551} = (6, 14, 8, 1)$ lies on line ℓ_{18}
$222 : P_{2563} = (2, 15, 8, 1)$ lies on line ℓ_{12}
$223 : P_{2564} = (3, 15, 8, 1)$ lies on line ℓ_{11}
$224 : P_{2567} = (6, 15, 8, 1)$ lies on line ℓ_{13}
$225 : P_{2606} = (13, 1, 9, 1)$ lies on line ℓ_{20}
$226 : P_{2619} = (10, 2, 9, 1)$ lies on line ℓ_4
$227 : P_{2621} = (12, 2, 9, 1)$ lies on line ℓ_3
$228 : P_{2622} = (13, 2, 9, 1)$ lies on line ℓ_2
$229 : P_{2638} = (13, 3, 9, 1)$ lies on line ℓ_{21}
$230 : P_{2642} = (1, 4, 9, 1)$ lies on line ℓ_9
$231 : P_{2657} = (0, 5, 9, 1)$ lies on line ℓ_{17}
$232 : P_{2669} = (12, 5, 9, 1)$ lies on line ℓ_{18}
$233 : P_{2675} = (2, 6, 9, 1)$ lies on line ℓ_6
$234 : P_{2678} = (5, 6, 9, 1)$ lies on line ℓ_7
$235 : P_{2681} = (8, 6, 9, 1)$ lies on line ℓ_8
$236 : P_{2693} = (4, 7, 9, 1)$ lies on line ℓ_{12}
$237 : P_{2695} = (6, 7, 9, 1)$ lies on line ℓ_{11}
$238 : P_{2701} = (12, 7, 9, 1)$ lies on line ℓ_{13}
$239 : P_{2709} = (4, 8, 9, 1)$ lies on line ℓ_{19}
$240 : P_{2721} = (0, 9, 9, 1)$ lies on line ℓ_0
$241 : P_{2738} = (1, 10, 9, 1)$ lies on line ℓ_{24}
$242 : P_{2742} = (5, 10, 9, 1)$ lies on line ℓ_{23}
$243 : P_{2744} = (7, 10, 9, 1)$ lies on line ℓ_{22}
$244 : P_{2761} = (8, 11, 9, 1)$ lies on line ℓ_1
$245 : P_{2769} = (0, 12, 9, 1)$ lies on line ℓ_{15}
$246 : P_{2774} = (5, 12, 9, 1)$ lies on line ℓ_{16}
$247 : P_{2793} = (8, 13, 9, 1)$ lies on line ℓ_{10}
$248 : P_{2802} = (1, 14, 9, 1)$ lies on line ℓ_{14}
$249 : P_{2821} = (4, 15, 9, 1)$ lies on line ℓ_5
$250 : P_{2849} = (0, 1, 10, 1)$ lies on line ℓ_{17}
$251 : P_{2860} = (11, 1, 10, 1)$ lies on line ℓ_{18}
$252 : P_{2866} = (1, 2, 10, 1)$ lies on line ℓ_{23}
$253 : P_{2871} = (6, 2, 10, 1)$ lies on line ℓ_{22}
$254 : P_{2880} = (15, 2, 10, 1)$ lies on line ℓ_{24}
$255 : P_{2895} = (14, 3, 10, 1)$ lies on line ℓ_5
$256 : P_{2902} = (5, 4, 10, 1)$ lies on line ℓ_{10}
$257 : P_{2927} = (14, 5, 10, 1)$ lies on line ℓ_{19}
$258 : P_{2938} = (9, 6, 10, 1)$ lies on line ℓ_{11}
$259 : P_{2940} = (11, 6, 10, 1)$ lies on line ℓ_{13}
$260 : P_{2943} = (14, 6, 10, 1)$ lies on line ℓ_{12}
$261 : P_{2947} = (2, 7, 10, 1)$ lies on line ℓ_4

$262: P_{2949} = (4, 7, 10, 1)$ lies on line ℓ_2

$263: P_{2956} = (11, 7, 10, 1)$ lies on line ℓ_3

$264: P_{2965} = (4, 8, 10, 1)$ lies on line ℓ_{21}

$265: P_{2978} = (1, 9, 10, 1)$ lies on line ℓ_7

$266: P_{2982} = (5, 9, 10, 1)$ lies on line ℓ_8

$267: P_{2984} = (7, 9, 10, 1)$ lies on line ℓ_6

$268: P_{2993} = (0, 10, 10, 1)$ lies on line ℓ_0

$269: P_{3009} = (0, 11, 10, 1)$ lies on line ℓ_{15}

$270: P_{3010} = (1, 11, 10, 1)$ lies on line ℓ_{16}

$271: P_{3040} = (15, 12, 10, 1)$ lies on line ℓ_{14}

$272: P_{3046} = (5, 13, 10, 1)$ lies on line ℓ_1

$273: P_{3072} = (15, 14, 10, 1)$ lies on line ℓ_9

$274: P_{3077} = (4, 15, 10, 1)$ lies on line ℓ_{20}

$275: P_{3105} = (0, 1, 11, 1)$ lies on line ℓ_{15}

$276: P_{3115} = (10, 1, 11, 1)$ lies on line ℓ_{16}

$277: P_{3124} = (3, 2, 11, 1)$ lies on line ℓ_{20}

$278: P_{3146} = (9, 3, 11, 1)$ lies on line ℓ_{10}

$279: P_{3154} = (1, 4, 11, 1)$ lies on line ℓ_3

$280: P_{3156} = (3, 4, 11, 1)$ lies on line ℓ_2

$281: P_{3166} = (13, 4, 11, 1)$ lies on line ℓ_4

$282: P_{3171} = (2, 5, 11, 1)$ lies on line ℓ_{14}

$283: P_{3188} = (3, 6, 11, 1)$ lies on line ℓ_{21}

$284: P_{3209} = (8, 7, 11, 1)$ lies on line ℓ_5

$285: P_{3219} = (2, 8, 11, 1)$ lies on line ℓ_9

$286: P_{3241} = (8, 9, 11, 1)$ lies on line ℓ_{19}

$287: P_{3249} = (0, 10, 11, 1)$ lies on line ℓ_{17}

$288: P_{3250} = (1, 10, 11, 1)$ lies on line ℓ_{18}

$289: P_{3265} = (0, 11, 11, 1)$ lies on line ℓ_0

$290: P_{3285} = (4, 12, 11, 1)$ lies on line ℓ_6

$291: P_{3290} = (9, 12, 11, 1)$ lies on line ℓ_8

$292: P_{3291} = (10, 12, 11, 1)$ lies on line ℓ_7

$293: P_{3299} = (2, 13, 11, 1)$ lies on line ℓ_{24}

$294: P_{3307} = (10, 13, 11, 1)$ lies on line ℓ_{23}

$295: P_{3311} = (14, 13, 11, 1)$ lies on line ℓ_{22}

$296: P_{3314} = (1, 14, 11, 1)$ lies on line ℓ_{13}

$297: P_{3321} = (8, 14, 11, 1)$ lies on line ℓ_{12}

$298: P_{3325} = (12, 14, 11, 1)$ lies on line ℓ_{11}

$299: P_{3338} = (9, 15, 11, 1)$ lies on line ℓ_1

$300: P_{3367} = (6, 1, 12, 1)$ lies on line ℓ_1

$301: P_{3380} = (3, 2, 12, 1)$ lies on line ℓ_5

$302: P_{3403} = (10, 3, 12, 1)$ lies on line ℓ_9

$303: P_{3412} = (3, 4, 12, 1)$ lies on line ℓ_{12}

$304: P_{3414} = (5, 4, 12, 1)$ lies on line ℓ_{13}

$305: P_{3423} = (14, 4, 12, 1)$ lies on line ℓ_{11}

$306: P_{3425} = (0, 5, 12, 1)$ lies on line ℓ_{15}

$307: P_{3434} = (9, 5, 12, 1)$ lies on line ℓ_{16}

$308: P_{3444} = (3, 6, 12, 1)$ lies on line ℓ_{19}

$309: P_{3472} = (15, 7, 12, 1)$ lies on line ℓ_{21}

$310: P_{3483} = (10, 8, 12, 1)$ lies on line ℓ_{14}

$311: P_{3489} = (0, 9, 12, 1)$ lies on line ℓ_{17}

$312: P_{3494} = (5, 9, 12, 1)$ lies on line ℓ_{18}

$313: P_{3520} = (15, 10, 12, 1)$ lies on line ℓ_{20}

$314: P_{3525} = (4, 11, 12, 1)$ lies on line ℓ_{22}

$315: P_{3530} = (9, 11, 12, 1)$ lies on line ℓ_{23}

$316: P_{3531} = (10, 11, 12, 1)$ lies on line ℓ_{24}

$317: P_{3537} = (0, 12, 12, 1)$ lies on line ℓ_0

$318: P_{3558} = (5, 13, 12, 1)$ lies on line ℓ_3

$319: P_{3564} = (11, 13, 12, 1)$ lies on line ℓ_4

$320: P_{3568} = (15, 13, 12, 1)$ lies on line ℓ_2

$321: P_{3575} = (6, 14, 12, 1)$ lies on line ℓ_8

$322: P_{3578} = (9, 14, 12, 1)$ lies on line ℓ_7

$323: P_{3582} = (13, 14, 12, 1)$ lies on line ℓ_6

$324: P_{3591} = (6, 15, 12, 1)$ lies on line ℓ_{10}

$325: P_{3624} = (7, 1, 13, 1)$ lies on line ℓ_{14}

$326: P_{3633} = (0, 2, 13, 1)$ lies on line ℓ_{17}

$327: P_{3648} = (15, 2, 13, 1)$ lies on line ℓ_{18}

$328: P_{3659} = (10, 3, 13, 1)$ lies on line ℓ_1

$329: P_{3667} = (2, 4, 13, 1)$ lies on line ℓ_{23}

$330: P_{3672} = (7, 4, 13, 1)$ lies on line ℓ_{24}

$331: P_{3677} = (12, 4, 13, 1)$ lies on line ℓ_{22}

$332: P_{3688} = (7, 5, 13, 1)$ lies on line ℓ_9

$333: P_{3702} = (5, 6, 13, 1)$ lies on line ℓ_5

$334: P_{3721} = (8, 7, 13, 1)$ lies on line ℓ_{20}

$335: P_{3739} = (10, 8, 13, 1)$ lies on line ℓ_{10}

$336: P_{3753} = (8, 9, 13, 1)$ lies on line ℓ_{21}

$337: P_{3766} = (5, 10, 13, 1)$ lies on line ℓ_{19}

$338: P_{3779} = (2, 11, 13, 1)$ lies on line ℓ_7

$339: P_{3787} = (10, 11, 13, 1)$ lies on line ℓ_8

$340: P_{3791} = (14, 11, 13, 1)$ lies on line ℓ_6

$341: P_{3798} = (5, 12, 13, 1)$ lies on line ℓ_{12}

$342: P_{3804} = (11, 12, 13, 1)$ lies on line ℓ_{11}

$343: P_{3808} = (15, 12, 13, 1)$ lies on line ℓ_{13}

$344: P_{3809} = (0, 13, 13, 1)$ lies on line ℓ_0

$345: P_{3829} = (4, 14, 13, 1)$ lies on line ℓ_4

$346: P_{3833} = (8, 14, 13, 1)$ lies on line ℓ_2

$347: P_{3840} = (15, 14, 13, 1)$ lies on line ℓ_3

$348: P_{3841} = (0, 15, 13, 1)$ lies on line ℓ_{15}

$349: P_{3843} = (2, 15, 13, 1)$ lies on line ℓ_{16}

$350: P_{3880} = (7, 1, 14, 1)$ lies on line ℓ_{10}

$351: P_{3890} = (1, 2, 14, 1)$ lies on line ℓ_{21}

$352: P_{3914} = (9, 3, 14, 1)$ lies on line ℓ_{14}

$353: P_{3927} = (6, 4, 14, 1)$ lies on line ℓ_7

$354: P_{3928} = (7, 4, 14, 1)$ lies on line ℓ_8

$355: P_{3932} = (11, 4, 14, 1)$ lies on line ℓ_6

$356: P_{3944} = (7, 5, 14, 1)$ lies on line ℓ_1

$357: P_{3953} = (0, 6, 14, 1)$ lies on line ℓ_{17}

$358: P_{3961} = (8, 6, 14, 1)$ lies on line ℓ_{18}

$359: P_{3984} = (15, 7, 14, 1)$ lies on line ℓ_{19}

$360: P_{3985} = (0, 8, 14, 1)$ lies on line ℓ_{15}

$361: P_{3991} = (6, 8, 14, 1)$ lies on line ℓ_{16}

$362: P_{4002} = (1, 9, 14, 1)$ lies on line ℓ_{20}

$363: P_{4032} = (15, 10, 14, 1)$ lies on line ℓ_5

$364: P_{4034} = (1, 11, 14, 1)$ lies on line ℓ_2

$365: P_{4041} = (8, 11, 14, 1)$ lies on line ℓ_3

$366: P_{4045} = (12, 11, 14, 1)$ lies on line ℓ_4

$367: P_{4055} = (6, 12, 14, 1)$ lies on line ℓ_{23}

$368: P_{4058} = (9, 12, 14, 1)$ lies on line ℓ_{24}

$369: P_{4062} = (13, 12, 14, 1)$ lies on line ℓ_{22}

370 : $P_{4069} = (4, 13, 14, 1)$ lies on line ℓ_{11}
371 : $P_{4073} = (8, 13, 14, 1)$ lies on line ℓ_{13}
372 : $P_{4080} = (15, 13, 14, 1)$ lies on line ℓ_{12}
373 : $P_{4081} = (0, 14, 14, 1)$ lies on line ℓ_0
374 : $P_{4106} = (9, 15, 14, 1)$ lies on line ℓ_9
375 : $P_{4137} = (8, 1, 15, 1)$ lies on line ℓ_6
376 : $P_{4140} = (11, 1, 15, 1)$ lies on line ℓ_8
377 : $P_{4142} = (13, 1, 15, 1)$ lies on line ℓ_7
378 : $P_{4145} = (0, 2, 15, 1)$ lies on line ℓ_{15}
379 : $P_{4158} = (13, 2, 15, 1)$ lies on line ℓ_{16}
380 : $P_{4165} = (4, 3, 15, 1)$ lies on line ℓ_{24}
381 : $P_{4166} = (5, 3, 15, 1)$ lies on line ℓ_{22}
382 : $P_{4174} = (13, 3, 15, 1)$ lies on line ℓ_{23}
383 : $P_{4183} = (6, 4, 15, 1)$ lies on line ℓ_{20}
384 : $P_{4194} = (1, 5, 15, 1)$ lies on line ℓ_{11}
385 : $P_{4195} = (2, 5, 15, 1)$ lies on line ℓ_{13}

386 : $P_{4202} = (9, 5, 15, 1)$ lies on line ℓ_{12}
387 : $P_{4220} = (11, 6, 15, 1)$ lies on line ℓ_{10}
388 : $P_{4236} = (11, 7, 15, 1)$ lies on line ℓ_1
389 : $P_{4243} = (2, 8, 15, 1)$ lies on line ℓ_3
390 : $P_{4244} = (3, 8, 15, 1)$ lies on line ℓ_4
391 : $P_{4247} = (6, 8, 15, 1)$ lies on line ℓ_2
392 : $P_{4261} = (4, 9, 15, 1)$ lies on line ℓ_9
393 : $P_{4277} = (4, 10, 15, 1)$ lies on line ℓ_{14}
394 : $P_{4298} = (9, 11, 15, 1)$ lies on line ℓ_{19}
395 : $P_{4311} = (6, 12, 15, 1)$ lies on line ℓ_{21}
396 : $P_{4321} = (0, 13, 15, 1)$ lies on line ℓ_{17}
397 : $P_{4323} = (2, 13, 15, 1)$ lies on line ℓ_{18}
398 : $P_{4346} = (9, 14, 15, 1)$ lies on line ℓ_5
399 : $P_{4353} = (0, 15, 15, 1)$ lies on line ℓ_0

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
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	1
1	1	0	1	1	1	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	1	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	1	1	1
21	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
22	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
23	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
24	1	1	1	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}	ℓ_{22}
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	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}	ℓ_{22}
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	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}	ℓ_{22}
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	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}	ℓ_{22}
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	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}	ℓ_{22}
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	P_3

Line 5 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	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}	ℓ_{22}
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	P_3

Line 6 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	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}	ℓ_{22}
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	P_3

Line 7 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	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}	ℓ_{22}
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	P_3

Line 8 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	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}	ℓ_{22}
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	P_3

Line 9 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

Line 10 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	
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	P_3	

Line 11 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_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	
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	P_3	

Line 12 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_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

Line 13 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_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

Line 14 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_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

Line 15 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_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

Line 16 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_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

Line 17 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_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
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	P_3

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}	ℓ_{22}
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	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}	ℓ_{22}
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	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}	ℓ_{22}
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	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}	ℓ_{22}
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	P_3

Line 22 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}	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	P_3

Line 23 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}	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	P_3

Line 24 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}	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	P_3

The surface has 401 points:
The points on the surface are:

$0 : P_3 = (0, 0, 0, 1)$

$1 : P_{35} = (0, 1, 1, 0)$

$2 : P_{63} = (12, 2, 1, 0)$

$3 : P_{74} = (7, 3, 1, 0)$

$4 : P_{77} = (10, 3, 1, 0)$

$5 : P_{82} = (15, 3, 1, 0)$

$6 : P_{89} = (6, 4, 1, 0)$

$7 : P_{102} = (3, 5, 1, 0)$

$8 : P_{110} = (11, 5, 1, 0)$

$9 : P_{111} = (12, 5, 1, 0)$

$10 : P_{128} = (13, 6, 1, 0)$

$11 : P_{143} = (12, 7, 1, 0)$

$12 : P_{152} = (5, 8, 1, 0)$

$13 : P_{153} = (6, 8, 1, 0)$

$14 : P_{157} = (10, 8, 1, 0)$

$15 : P_{176} = (13, 9, 1, 0)$

$16 : P_{179} = (0, 10, 1, 0)$

$17 : P_{190} = (11, 10, 1, 0)$

$18 : P_{195} = (0, 11, 1, 0)$

$19 : P_{205} = (10, 11, 1, 0)$

$20 : P_{217} = (6, 12, 1, 0)$

$21 : P_{234} = (7, 13, 1, 0)$

$22 : P_{250} = (7, 14, 1, 0)$

$23 : P_{267} = (8, 15, 1, 0)$

$24 : P_{270} = (11, 15, 1, 0)$

$25 : P_{272} = (13, 15, 1, 0)$

$26 : P_{546} = (0, 1, 1, 1)$

$27 : P_{573} = (12, 2, 1, 1)$

$28 : P_{584} = (7, 3, 1, 1)$

$29 : P_{587} = (10, 3, 1, 1)$

$30 : P_{592} = (15, 3, 1, 1)$

$31 : P_{599} = (6, 4, 1, 1)$

$32 : P_{612} = (3, 5, 1, 1)$

$33 : P_{620} = (11, 5, 1, 1)$

$34 : P_{621} = (12, 5, 1, 1)$

$35 : P_{638} = (13, 6, 1, 1)$

$36 : P_{653} = (12, 7, 1, 1)$

$37 : P_{662} = (5, 8, 1, 1)$

$38 : P_{663} = (6, 8, 1, 1)$

$39 : P_{667} = (10, 8, 1, 1)$

$40 : P_{686} = (13, 9, 1, 1)$

$41 : P_{689} = (0, 10, 1, 1)$

$42 : P_{700} = (11, 10, 1, 1)$

$43 : P_{705} = (0, 11, 1, 1)$

$44 : P_{715} = (10, 11, 1, 1)$

$45 : P_{727} = (6, 12, 1, 1)$

$46 : P_{744} = (7, 13, 1, 1)$

$47 : P_{760} = (7, 14, 1, 1)$

$48 : P_{777} = (8, 15, 1, 1)$

$49 : P_{780} = (11, 15, 1, 1)$

$50 : P_{782} = (13, 15, 1, 1)$

$51 : P_{813} = (12, 1, 2, 1)$

$52 : P_{817} = (0, 2, 2, 1)$

$53 : P_{847} = (14, 3, 2, 1)$

$54 : P_{850} = (1, 4, 2, 1)$

$55 : P_{879} = (14, 5, 2, 1)$

$56 : P_{888} = (7, 6, 2, 1)$

$57 : P_{894} = (13, 6, 2, 1)$

$58 : P_{895} = (14, 6, 2, 1)$

$59 : P_{900} = (3, 7, 2, 1)$

$60 : P_{906} = (9, 7, 2, 1)$

$61 : P_{912} = (15, 7, 2, 1)$

$62 : P_{925} = (12, 8, 2, 1)$

$63 : P_{939} = (10, 9, 2, 1)$

$64 : P_{941} = (12, 9, 2, 1)$

$65 : P_{942} = (13, 9, 2, 1)$

$66 : P_{946} = (1, 10, 2, 1)$

$67 : P_{951} = (6, 10, 2, 1)$

$68 : P_{960} = (15, 10, 2, 1)$

$69 : P_{964} = (3, 11, 2, 1)$

$70 : P_{980} = (3, 12, 2, 1)$

$71 : P_{993} = (0, 13, 2, 1)$

$72 : P_{1008} = (15, 13, 2, 1)$

$73 : P_{1010} = (1, 14, 2, 1)$

$74 : P_{1025} = (0, 15, 2, 1)$

$75 : P_{1038} = (13, 15, 2, 1)$

$76 : P_{1064} = (7, 1, 3, 1)$

$77 : P_{1067} = (10, 1, 3, 1)$

$78 : P_{1072} = (15, 1, 3, 1)$

$79 : P_{1087} = (14, 2, 3, 1)$

$80 : P_{1089} = (0, 3, 3, 1)$

$81 : P_{1105} = (0, 4, 3, 1)$

$82 : P_{1112} = (7, 4, 3, 1)$

$83 : P_{1128} = (7, 5, 3, 1)$

$84 : P_{1129} = (8, 5, 3, 1)$

$85 : P_{1130} = (9, 5, 3, 1)$

$86 : P_{1150} = (13, 6, 3, 1)$

$87 : P_{1153} = (0, 7, 3, 1)$

$88 : P_{1157} = (4, 7, 3, 1)$

$89 : P_{1170} = (1, 8, 3, 1)$

$90 : P_{1173} = (4, 8, 3, 1)$

$91 : P_{1183} = (14, 8, 3, 1)$

$92 : P_{1198} = (13, 9, 3, 1)$

$93 : P_{1215} = (14, 10, 3, 1)$

$94 : P_{1226} = (9, 11, 3, 1)$

$95 : P_{1243} = (10, 12, 3, 1)$

$96 : P_{1259} = (10, 13, 3, 1)$

$97 : P_{1274} = (9, 14, 3, 1)$

$98 : P_{1285} = (4, 15, 3, 1)$

$99 : P_{1286} = (5, 15, 3, 1)$

$100 : P_{1294} = (13, 15, 3, 1)$

$101 : P_{1319} = (6, 1, 4, 1)$

$102 : P_{1330} = (1, 2, 4, 1)$

$103 : P_{1345} = (0, 3, 4, 1)$

$104 : P_{1352} = (7, 3, 4, 1)$

$105 : P_{1361} = (0, 4, 4, 1)$

$106 : P_{1379} = (2, 5, 4, 1)$

$107 : P_{1398} = (5, 6, 4, 1)$

$108 : P_{1409} = (0, 7, 4, 1)$

$109 : P_{1412} = (3, 7, 4, 1)$

$110 : P_{1427} = (2, 8, 4, 1)$

$111 : P_{1442} = (1, 9, 4, 1)$

$112 : P_{1462} = (5, 10, 4, 1)$

$113 : P_{1474} = (1, 11, 4, 1)$

$114 : P_{1476} = (3, 11, 4, 1)$

$115 : P_{1486} = (13, 11, 4, 1)$

$116 : P_{1492} = (3, 12, 4, 1)$

$117 : P_{1494} = (5, 12, 4, 1)$

$118 : P_{1503} = (14, 12, 4, 1)$

$119 : P_{1507} = (2, 13, 4, 1)$

$120 : P_{1512} = (7, 13, 4, 1)$

$121 : P_{1517} = (12, 13, 4, 1)$

$122 : P_{1527} = (6, 14, 4, 1)$

$123 : P_{1528} = (7, 14, 4, 1)$

$124 : P_{1532} = (11, 14, 4, 1)$

$125 : P_{1543} = (6, 15, 4, 1)$

$126 : P_{1572} = (3, 1, 5, 1)$

$127 : P_{1580} = (11, 1, 5, 1)$

$128 : P_{1581} = (12, 1, 5, 1)$

$129 : P_{1599} = (14, 2, 5, 1)$

$130 : P_{1608} = (7, 3, 5, 1)$

$131 : P_{1609} = (8, 3, 5, 1)$

$132 : P_{1610} = (9, 3, 5, 1)$

$133 : P_{1619} = (2, 4, 5, 1)$

$134 : P_{1633} = (0, 5, 5, 1)$

$135 : P_{1660} = (11, 6, 5, 1)$

$136 : P_{1676} = (11, 7, 5, 1)$

$137 : P_{1693} = (12, 8, 5, 1)$

$138 : P_{1695} = (14, 8, 5, 1)$

$139 : P_{1696} = (15, 8, 5, 1)$

$140 : P_{1697} = (0, 9, 5, 1)$

$141 : P_{1709} = (12, 9, 5, 1)$

$142 : P_{1727} = (14, 10, 5, 1)$

$143 : P_{1731} = (2, 11, 5, 1)$

$144 : P_{1745} = (0, 12, 5, 1)$

$145 : P_{1754} = (9, 12, 5, 1)$

$146 : P_{1768} = (7, 13, 5, 1)$

$147 : P_{1784} = (7, 14, 5, 1)$

$148 : P_{1794} = (1, 15, 5, 1)$

$149 : P_{1795} = (2, 15, 5, 1)$

$150 : P_{1802} = (9, 15, 5, 1)$

$151 : P_{1838} = (13, 1, 6, 1)$

$152 : P_{1848} = (7, 2, 6, 1)$

$153 : P_{1854} = (13, 2, 6, 1)$

$154 : P_{1855} = (14, 2, 6, 1)$

$155 : P_{1870} = (13, 3, 6, 1)$

$156 : P_{1878} = (5, 4, 6, 1)$

$157 : P_{1900} = (11, 5, 6, 1)$

$158 : P_{1905} = (0, 6, 6, 1)$

$159 : P_{1924} = (3, 7, 6, 1)$

$160 : P_{1929} = (8, 7, 6, 1)$

$161 : P_{1931} = (10, 7, 6, 1)$

$162 : P_{1937} = (0, 8, 6, 1)$
$163 : P_{1951} = (14, 8, 6, 1)$
$164 : P_{1955} = (2, 9, 6, 1)$
$165 : P_{1958} = (5, 9, 6, 1)$
$166 : P_{1961} = (8, 9, 6, 1)$
$167 : P_{1978} = (9, 10, 6, 1)$
$168 : P_{1980} = (11, 10, 6, 1)$
$169 : P_{1983} = (14, 10, 6, 1)$
$170 : P_{1988} = (3, 11, 6, 1)$
$171 : P_{2004} = (3, 12, 6, 1)$
$172 : P_{2022} = (5, 13, 6, 1)$
$173 : P_{2033} = (0, 14, 6, 1)$
$174 : P_{2041} = (8, 14, 6, 1)$
$175 : P_{2060} = (11, 15, 6, 1)$
$176 : P_{2093} = (12, 1, 7, 1)$
$177 : P_{2100} = (3, 2, 7, 1)$
$178 : P_{2106} = (9, 2, 7, 1)$
$179 : P_{2112} = (15, 2, 7, 1)$
$180 : P_{2113} = (0, 3, 7, 1)$
$181 : P_{2117} = (4, 3, 7, 1)$
$182 : P_{2129} = (0, 4, 7, 1)$
$183 : P_{2132} = (3, 4, 7, 1)$
$184 : P_{2156} = (11, 5, 7, 1)$
$185 : P_{2164} = (3, 6, 7, 1)$
$186 : P_{2169} = (8, 6, 7, 1)$
$187 : P_{2171} = (10, 6, 7, 1)$
$188 : P_{2177} = (0, 7, 7, 1)$
$189 : P_{2205} = (12, 8, 7, 1)$
$190 : P_{2213} = (4, 9, 7, 1)$
$191 : P_{2215} = (6, 9, 7, 1)$
$192 : P_{2221} = (12, 9, 7, 1)$
$193 : P_{2227} = (2, 10, 7, 1)$
$194 : P_{2229} = (4, 10, 7, 1)$
$195 : P_{2236} = (11, 10, 7, 1)$
$196 : P_{2249} = (8, 11, 7, 1)$
$197 : P_{2272} = (15, 12, 7, 1)$
$198 : P_{2281} = (8, 13, 7, 1)$
$199 : P_{2304} = (15, 14, 7, 1)$
$200 : P_{2316} = (11, 15, 7, 1)$
$201 : P_{2342} = (5, 1, 8, 1)$
$202 : P_{2343} = (6, 1, 8, 1)$
$203 : P_{2347} = (10, 1, 8, 1)$
$204 : P_{2365} = (12, 2, 8, 1)$
$205 : P_{2370} = (1, 3, 8, 1)$
$206 : P_{2373} = (4, 3, 8, 1)$
$207 : P_{2383} = (14, 3, 8, 1)$
$208 : P_{2387} = (2, 4, 8, 1)$
$209 : P_{2413} = (12, 5, 8, 1)$
$210 : P_{2415} = (14, 5, 8, 1)$
$211 : P_{2416} = (15, 5, 8, 1)$
$212 : P_{2417} = (0, 6, 8, 1)$
$213 : P_{2431} = (14, 6, 8, 1)$
$214 : P_{2445} = (12, 7, 8, 1)$
$215 : P_{2449} = (0, 8, 8, 1)$

$216 : P_{2469} = (4, 9, 8, 1)$
$217 : P_{2485} = (4, 10, 8, 1)$
$218 : P_{2499} = (2, 11, 8, 1)$
$219 : P_{2523} = (10, 12, 8, 1)$
$220 : P_{2539} = (10, 13, 8, 1)$
$221 : P_{2545} = (0, 14, 8, 1)$
$222 : P_{2551} = (6, 14, 8, 1)$
$223 : P_{2563} = (2, 15, 8, 1)$
$224 : P_{2564} = (3, 15, 8, 1)$
$225 : P_{2567} = (6, 15, 8, 1)$
$226 : P_{2606} = (13, 1, 9, 1)$
$227 : P_{2619} = (10, 2, 9, 1)$
$228 : P_{2621} = (12, 2, 9, 1)$
$229 : P_{2622} = (13, 2, 9, 1)$
$230 : P_{2638} = (13, 3, 9, 1)$
$231 : P_{2642} = (1, 4, 9, 1)$
$232 : P_{2657} = (0, 5, 9, 1)$
$233 : P_{2669} = (12, 5, 9, 1)$
$234 : P_{2675} = (2, 6, 9, 1)$
$235 : P_{2678} = (5, 6, 9, 1)$
$236 : P_{2681} = (8, 6, 9, 1)$
$237 : P_{2693} = (4, 7, 9, 1)$
$238 : P_{2695} = (6, 7, 9, 1)$
$239 : P_{2701} = (12, 7, 9, 1)$
$240 : P_{2709} = (4, 8, 9, 1)$
$241 : P_{2721} = (0, 9, 9, 1)$
$242 : P_{2738} = (1, 10, 9, 1)$
$243 : P_{2742} = (5, 10, 9, 1)$
$244 : P_{2744} = (7, 10, 9, 1)$
$245 : P_{2761} = (8, 11, 9, 1)$
$246 : P_{2769} = (0, 12, 9, 1)$
$247 : P_{2774} = (5, 12, 9, 1)$
$248 : P_{2793} = (8, 13, 9, 1)$
$249 : P_{2802} = (1, 14, 9, 1)$
$250 : P_{2821} = (4, 15, 9, 1)$
$251 : P_{2849} = (0, 1, 10, 1)$
$252 : P_{2860} = (11, 1, 10, 1)$
$253 : P_{2866} = (1, 2, 10, 1)$
$254 : P_{2871} = (6, 2, 10, 1)$
$255 : P_{2880} = (15, 2, 10, 1)$
$256 : P_{2895} = (14, 3, 10, 1)$
$257 : P_{2902} = (5, 4, 10, 1)$
$258 : P_{2927} = (14, 5, 10, 1)$
$259 : P_{2938} = (9, 6, 10, 1)$
$260 : P_{2940} = (11, 6, 10, 1)$
$261 : P_{2943} = (14, 6, 10, 1)$
$262 : P_{2947} = (2, 7, 10, 1)$
$263 : P_{2949} = (4, 7, 10, 1)$
$264 : P_{2956} = (11, 7, 10, 1)$
$265 : P_{2965} = (4, 8, 10, 1)$
$266 : P_{2978} = (1, 9, 10, 1)$
$267 : P_{2982} = (5, 9, 10, 1)$
$268 : P_{2984} = (7, 9, 10, 1)$
$269 : P_{2993} = (0, 10, 10, 1)$

$270 : P_{3009} = (0, 11, 10, 1)$
$271 : P_{3010} = (1, 11, 10, 1)$
$272 : P_{3040} = (15, 12, 10, 1)$
$273 : P_{3046} = (5, 13, 10, 1)$
$274 : P_{3072} = (15, 14, 10, 1)$
$275 : P_{3077} = (4, 15, 10, 1)$
$276 : P_{3105} = (0, 1, 11, 1)$
$277 : P_{3115} = (10, 1, 11, 1)$
$278 : P_{3124} = (3, 2, 11, 1)$
$279 : P_{3146} = (9, 3, 11, 1)$
$280 : P_{3154} = (1, 4, 11, 1)$
$281 : P_{3156} = (3, 4, 11, 1)$
$282 : P_{3166} = (13, 4, 11, 1)$
$283 : P_{3171} = (2, 5, 11, 1)$
$284 : P_{3188} = (3, 6, 11, 1)$
$285 : P_{3209} = (8, 7, 11, 1)$
$286 : P_{3219} = (2, 8, 11, 1)$
$287 : P_{3241} = (8, 9, 11, 1)$
$288 : P_{3249} = (0, 10, 11, 1)$
$289 : P_{3250} = (1, 10, 11, 1)$
$290 : P_{3265} = (0, 11, 11, 1)$
$291 : P_{3285} = (4, 12, 11, 1)$
$292 : P_{3290} = (9, 12, 11, 1)$
$293 : P_{3291} = (10, 12, 11, 1)$
$294 : P_{3299} = (2, 13, 11, 1)$
$295 : P_{3307} = (10, 13, 11, 1)$
$296 : P_{3311} = (14, 13, 11, 1)$
$297 : P_{3314} = (1, 14, 11, 1)$
$298 : P_{3321} = (8, 14, 11, 1)$
$299 : P_{3325} = (12, 14, 11, 1)$
$300 : P_{3338} = (9, 15, 11, 1)$
$301 : P_{3367} = (6, 1, 12, 1)$
$302 : P_{3380} = (3, 2, 12, 1)$
$303 : P_{3403} = (10, 3, 12, 1)$
$304 : P_{3412} = (3, 4, 12, 1)$
$305 : P_{3414} = (5, 4, 12, 1)$
$306 : P_{3423} = (14, 4, 12, 1)$
$307 : P_{3425} = (0, 5, 12, 1)$
$308 : P_{3434} = (9, 5, 12, 1)$
$309 : P_{3444} = (3, 6, 12, 1)$
$310 : P_{3472} = (15, 7, 12, 1)$
$311 : P_{3483} = (10, 8, 12, 1)$
$312 : P_{3489} = (0, 9, 12, 1)$
$313 : P_{3494} = (5, 9, 12, 1)$
$314 : P_{3520} = (15, 10, 12, 1)$
$315 : P_{3525} = (4, 11, 12, 1)$
$316 : P_{3530} = (9, 11, 12, 1)$
$317 : P_{3531} = (10, 11, 12, 1)$
$318 : P_{3537} = (0, 12, 12, 1)$
$319 : P_{3558} = (5, 13, 12, 1)$
$320 : P_{3564} = (11, 13, 12, 1)$
$321 : P_{3568} = (15, 13, 12, 1)$
$322 : P_{3575} = (6, 14, 12, 1)$
$323 : P_{3578} = (9, 14, 12, 1)$

$324 : P_{3582} = (13, 14, 12, 1)$

$325 : P_{3591} = (6, 15, 12, 1)$

$326 : P_{3624} = (7, 1, 13, 1)$

$327 : P_{3633} = (0, 2, 13, 1)$

$328 : P_{3648} = (15, 2, 13, 1)$

$329 : P_{3659} = (10, 3, 13, 1)$

$330 : P_{3667} = (2, 4, 13, 1)$

$331 : P_{3672} = (7, 4, 13, 1)$

$332 : P_{3677} = (12, 4, 13, 1)$

$333 : P_{3688} = (7, 5, 13, 1)$

$334 : P_{3702} = (5, 6, 13, 1)$

$335 : P_{3721} = (8, 7, 13, 1)$

$336 : P_{3739} = (10, 8, 13, 1)$

$337 : P_{3753} = (8, 9, 13, 1)$

$338 : P_{3766} = (5, 10, 13, 1)$

$339 : P_{3779} = (2, 11, 13, 1)$

$340 : P_{3787} = (10, 11, 13, 1)$

$341 : P_{3791} = (14, 11, 13, 1)$

$342 : P_{3798} = (5, 12, 13, 1)$

$343 : P_{3804} = (11, 12, 13, 1)$

$344 : P_{3808} = (15, 12, 13, 1)$

$345 : P_{3809} = (0, 13, 13, 1)$

$346 : P_{3829} = (4, 14, 13, 1)$

$347 : P_{3833} = (8, 14, 13, 1)$

$348 : P_{3840} = (15, 14, 13, 1)$

$349 : P_{3841} = (0, 15, 13, 1)$

$350 : P_{3843} = (2, 15, 13, 1)$

$351 : P_{3880} = (7, 1, 14, 1)$

$352 : P_{3890} = (1, 2, 14, 1)$

$353 : P_{3914} = (9, 3, 14, 1)$

$354 : P_{3927} = (6, 4, 14, 1)$

$355 : P_{3928} = (7, 4, 14, 1)$

$356 : P_{3932} = (11, 4, 14, 1)$

$357 : P_{3944} = (7, 5, 14, 1)$

$358 : P_{3953} = (0, 6, 14, 1)$

$359 : P_{3961} = (8, 6, 14, 1)$

$360 : P_{3984} = (15, 7, 14, 1)$

$361 : P_{3985} = (0, 8, 14, 1)$

$362 : P_{3991} = (6, 8, 14, 1)$

$363 : P_{4002} = (1, 9, 14, 1)$

$364 : P_{4032} = (15, 10, 14, 1)$

$365 : P_{4034} = (1, 11, 14, 1)$

$366 : P_{4041} = (8, 11, 14, 1)$

$367 : P_{4045} = (12, 11, 14, 1)$

$368 : P_{4055} = (6, 12, 14, 1)$

$369 : P_{4058} = (9, 12, 14, 1)$

$370 : P_{4062} = (13, 12, 14, 1)$

$371 : P_{4069} = (4, 13, 14, 1)$

$372 : P_{4073} = (8, 13, 14, 1)$

$373 : P_{4080} = (15, 13, 14, 1)$

$374 : P_{4081} = (0, 14, 14, 1)$

$375 : P_{4106} = (9, 15, 14, 1)$

$376 : P_{4137} = (8, 1, 15, 1)$

$377 : P_{4140} = (11, 1, 15, 1)$

$378 : P_{4142} = (13, 1, 15, 1)$

$379 : P_{4145} = (0, 2, 15, 1)$

$380 : P_{4158} = (13, 2, 15, 1)$

$381 : P_{4165} = (4, 3, 15, 1)$

$382 : P_{4166} = (5, 3, 15, 1)$

$383 : P_{4174} = (13, 3, 15, 1)$

$384 : P_{4183} = (6, 4, 15, 1)$

$385 : P_{4194} = (1, 5, 15, 1)$

$386 : P_{4195} = (2, 5, 15, 1)$

$387 : P_{4202} = (9, 5, 15, 1)$

$388 : P_{4220} = (11, 6, 15, 1)$

$389 : P_{4236} = (11, 7, 15, 1)$

$390 : P_{4243} = (2, 8, 15, 1)$

$391 : P_{4244} = (3, 8, 15, 1)$

$392 : P_{4247} = (6, 8, 15, 1)$

$393 : P_{4261} = (4, 9, 15, 1)$

$394 : P_{4277} = (4, 10, 15, 1)$

$395 : P_{4298} = (9, 11, 15, 1)$

$396 : P_{4311} = (6, 12, 15, 1)$

$397 : P_{4321} = (0, 13, 15, 1)$

$398 : P_{4323} = (2, 13, 15, 1)$

$399 : P_{4346} = (9, 14, 15, 1)$

$400 : P_{4353} = (0, 15, 15, 1)$