Rank-65687 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

$$X_2^3 + X_0^2X_1 + X_0X_1^2 + X_0X_1X_2 = 0$$

(0, 0, 1, 0, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(32) is 1109428261

General information

Number of lines	34
Number of points	1089
Number of singular points	33
Number of Eckardt points	0
Number of double points	0
Number of single points	1088
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^{34}
Type of lines on points	34, 1^{1088}

Singular Points

The surface has 33 singular points:

0 : $P_3 = \mathbf{P}(0,0,0,1) = \mathbf{P}(0,0,0,1)$
1 : $P_4 = \mathbf{P}(1,1,1,1) = \mathbf{P}(1,1,1,1)$
2 : $P_{68} = \mathbf{P}(1,1,1,0) = \mathbf{P}(1,1,1,0)$
3 : $P_{3171} = \mathbf{P}(\eta,\eta,\eta,1) = \mathbf{P}(2,2,2,1)$
4 : $P_{4228} = \mathbf{P}(\eta^{18},\eta^{18},\eta^{18},1) = \mathbf{P}(3,3,3,1)$
5 : $P_{5285} = \mathbf{P}(\eta^2,\eta^2,\eta^2,1) = \mathbf{P}(4,4,4,1)$
6 : $P_{6342} = \mathbf{P}(\eta^5,\eta^5,\eta^5,1) = \mathbf{P}(5,5,5,1)$
7 : $P_{7399} = \mathbf{P}(\eta^{19},\eta^{19},\eta^{19},1) = \mathbf{P}(6,6,6,1)$
8 : $P_{8456} = \mathbf{P}(\eta^{11},\eta^{11},\eta^{11},1) = \mathbf{P}(7,7,7,1)$
9 : $P_{9513} = \mathbf{P}(\eta^3,\eta^3,\eta^3,1) = \mathbf{P}(8,8,8,1)$
10 : $P_{10570} = \mathbf{P}(\eta^{29},\eta^{29},\eta^{29},1) = \mathbf{P}(9,9,9,1)$
11 : $P_{11627} = \mathbf{P}(\eta^6,\eta^6,\eta^6,1) = \mathbf{P}(10,10,10,1)$
12 : $P_{12684} = \mathbf{P}(\eta^{27},\eta^{27},\eta^{27},1) = \mathbf{P}(11,11,11,1)$
13 : $P_{13741} = \mathbf{P}(\eta^{20},\eta^{20},\eta^{20},1) = \mathbf{P}(12,12,12,1)$
14 : $P_{14798} = \mathbf{P}(\eta^8,\eta^8,\eta^8,1) = \mathbf{P}(13,13,13,1)$
15 : $P_{15855} = \mathbf{P}(\eta^{12},\eta^{12},\eta^{12},1) = \mathbf{P}(14,14,14,1)$

$16: P_{16912} = \mathbf{P}(\eta^{23}, \eta^{23}, \eta^{23}, 1) = \mathbf{P}(15, 15, 15, 1)$
$17: P_{17969} = \mathbf{P}(\eta^{4}, \eta^{4}, \eta^{4}, 1) = \mathbf{P}(16, 16, 16, 1)$
$18: P_{19026} = \mathbf{P}(\eta^{10}, \eta^{10}, \eta^{10}, 1) = \mathbf{P}(17, 17, 17, 1)$
$19: P_{20083} = \mathbf{P}(\eta^{30}, \eta^{30}, \eta^{30}, 1) = \mathbf{P}(18, 18, 18, 1)$
$20: P_{21140} = \mathbf{P}(\eta^{17}, \eta^{17}, \eta^{17}, 1) = \mathbf{P}(19, 19, 19, 1)$
$21: P_{22197} = \mathbf{P}(\eta^{7}, \eta^{7}, \eta^{7}, 1) = \mathbf{P}(20, 20, 20, 1)$
$22: P_{23254} = \mathbf{P}(\eta^{22}, \eta^{22}, \eta^{22}, 1) = \mathbf{P}(21, 21, 21, 1)$
$23: P_{24311} = \mathbf{P}(\eta^{28}, \eta^{28}, \eta^{28}, 1) = \mathbf{P}(22, 22, 22, 1)$
$24: P_{25368} = \mathbf{P}(\eta^{26}, \eta^{26}, \eta^{26}, 1) = \mathbf{P}(23, 23, 23, 1)$
$25: P_{26425} = \mathbf{P}(\eta^{21}, \eta^{21}, \eta^{21}, 1) = \mathbf{P}(24, 24, 24, 1)$
$26: P_{27482} = \mathbf{P}(\eta^{25}, \eta^{25}, \eta^{25}, 1) = \mathbf{P}(25, 25, 25, 1)$
$27: P_{28539} = \mathbf{P}(\eta^{9}, \eta^{9}, \eta^{9}, 1) = \mathbf{P}(26, 26, 26, 1)$
$28: P_{29596} = \mathbf{P}(\eta^{16}, \eta^{16}, \eta^{16}, 1) = \mathbf{P}(27, 27, 27, 1)$
$29: P_{30653} = \mathbf{P}(\eta^{13}, \eta^{13}, \eta^{13}, 1) = \mathbf{P}(28, 28, 28, 1)$
$30: P_{31710} = \mathbf{P}(\eta^{14}, \eta^{14}, \eta^{14}, 1) = \mathbf{P}(29, 29, 29, 1)$
$31: P_{32767} = \mathbf{P}(\eta^{24}, \eta^{24}, \eta^{24}, 1) = \mathbf{P}(30, 30, 30, 1)$
$32: P_{33824} = \mathbf{P}(\eta^{15}, \eta^{15}, \eta^{15}, 1) = \mathbf{P}(31, 31, 31, 1)$

The 34 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1056} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1056} = \mathbf{Pl}(0,0,0,0,1,0)_{1089}$$

$$\ell_1 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082400} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1082400} = \mathbf{Pl}(0,0,0,1,0,0)_{65}$$

$$\ell_2 = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2113} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2113} = \mathbf{Pl}(0,0,0,1,1,0)_{3105}$$

$$\ell_3 = \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{35937} = \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{35937} = \mathbf{Pl}(0,1,0,1,1,0)_{3137}$$

$$\ell_4 = \begin{bmatrix} 1 & \eta^{29} & \eta^{28} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{754697} = \begin{bmatrix} 1 & 9 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{754697} = \mathbf{Pl}(0,22,0,9,1,0)_{3662}$$

$$\ell_5 = \begin{bmatrix} 1 & \eta^{5} & \eta^{4} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{547525} = \begin{bmatrix} 1 & 5 & 16 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{547525} = \mathbf{Pl}(0,16,0,5,1,0)_{3404}$$

$$\ell_6 = \begin{bmatrix} 1 & \eta^{27} & \eta^{25} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{858283} = \begin{bmatrix} 1 & 11 & 25 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{858283} = \mathbf{Pl}(0,25,0,11,1,0)_{3791}$$

$$\ell_7 = \begin{bmatrix} 1 & \eta^{10} & \eta^{8} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{458737} = \begin{bmatrix} 1 & 17 & 13 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{458737} = \mathbf{Pl}(0,13,0,17,1,0)_{4157}$$

$$\ell_8 = \begin{bmatrix} 1 & \eta^{2} & \eta^{30} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{614116} = \begin{bmatrix} 1 & 4 & 18 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{614116} = \mathbf{Pl}(0,18,0,4,1,0)_{3343}$$

$$\ell_9 = \begin{bmatrix} 1 & \eta^{7} & \eta^{4} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{563380} = \begin{bmatrix} 1 & 20 & 16 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{563380} = \mathbf{Pl}(0,16,0,20,1,0)_{4349}$$

$$\ell_{10} = \begin{bmatrix} 1 & \eta^{12} & \eta^{14} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{996750} = \begin{bmatrix} 1 & 14 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{996750} = \mathbf{Pl}(0,29,0,14,1,0)_{3984}$$

$$\ell_{11} = \begin{bmatrix} 1 & \eta^{13} & \eta^{15} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1079196} = \begin{bmatrix} 1 & 28 & 31 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1079196} = \mathbf{Pl}(0,31,0,28,1,0)_{4868}$$

$$\ell_{12} = \begin{bmatrix} 1 & \eta^{4} & \eta^{29} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{322384} = \begin{bmatrix} 1 & 16 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{322384} = \mathbf{Pl}(0,9,0,16,1,0)_{4090}$$

$$\ell_{13} = \begin{bmatrix} 1 & \eta^{14} & \eta^{8} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{471421} = \begin{bmatrix} 1 & 29 & 13 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{471421} = \mathbf{Pl}(0,13,0,29,1,0)_{4913}$$

$$\ell_{14} = \begin{bmatrix} 1 & \eta^{26} & \eta^{30} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{634199} = \begin{bmatrix} 1 & 23 & 18 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{634199} = \mathbf{Pl}(0,18,0,23,1,0)_{4540}$$

$$\ell_{15} = \begin{bmatrix} 1 & \eta^{24} & \eta^{28} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{776894} = \begin{bmatrix} 1 & 30 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{776894} = \mathbf{Pl}(0,22,0,30,1,0)_{4985}$$

$$\ell_{16} = \left[\begin{array}{cccc} 1 & \eta^{9} & \eta & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{96186} = \left[\begin{array}{cccc} 1 & 26 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{96186} = \mathbf{Pl}(0,2,0,26,1,0)_{4713}$$

$$\ell_{17} = \left[\begin{array}{cccc} 1 & \eta^{15} & \eta^{7} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{710303} = \left[\begin{array}{cccc} 1 & 31 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{710303} = \mathbf{Pl}(0,20,0,31,1,0)_{5046}$$

$$\ell_{18} = \left[\begin{array}{cccc} 1 & \eta^{8} & \eta^{27} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{386861} = \left[\begin{array}{cccc} 1 & 13 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{386861} = \mathbf{Pl}(0,11,0,13,1,0)_{3903}$$

$$\ell_{19} = \left[\begin{array}{cccc} 1 & \eta^{28} & \eta^{16} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{937558} = \left[\begin{array}{cccc} 1 & 22 & 27 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{937558} = \mathbf{Pl}(0,27,0,22,1,0)_{4486}$$

$$\ell_{20} = \left[\begin{array}{cccc} 1 & \eta^{21} & \eta^{29} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{330840} = \left[\begin{array}{cccc} 1 & 24 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{330840} = \mathbf{Pl}(0,9,0,24,1,0)_{4594}$$

$$\ell_{21} = \left[\begin{array}{cccc} 1 & \eta^{17} & \eta^{25} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{866739} = \left[\begin{array}{cccc} 1 & 19 & 25 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{866739} = \mathbf{Pl}(0,25,0,19,1,0)_{4295}$$

$$\ell_{22} = \left[\begin{array}{cccc} 1 & \eta^{23} & \eta^{19} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{219855} = \left[\begin{array}{cccc} 1 & 15 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{219855} = \mathbf{Pl}(0,6,0,15,1,0)_{4024}$$

$$\ell_{23} = \left[\begin{array}{cccc} 1 & \eta^{20} & \eta^{16} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{926988} = \left[\begin{array}{cccc} 1 & 12 & 27 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{926988} = \mathbf{Pl}(0,27,0,12,1,0)_{3856}$$

$$\ell_{24} = \left[\begin{array}{cccc} 1 & \eta^{22} & \eta^{23} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{530613} = \left[\begin{array}{cccc} 1 & 21 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{530613} = \mathbf{Pl}(0,15,0,21,1,0)_{4411}$$

$$\ell_{25} = \left[\begin{array}{cccc} 1 & \eta^{6} & \eta^{7} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{688106} = \left[\begin{array}{cccc} 1 & 10 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{688106} = \mathbf{Pl}(0,20,0,10,1,0)_{3723}$$

$$\ell_{26} = \left[\begin{array}{cccc} 1 & \eta^{19} & \eta^{2} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{142694} = \left[\begin{array}{cccc} 1 & 6 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{142694} = \mathbf{Pl}(0,4,0,6,1,0)_{3455}$$

$$\ell_{27} = \left[\begin{array}{cccc} 1 & \eta & \eta^{15} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1051714} = \left[\begin{array}{cccc} 1 & 2 & 31 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1051714} = \mathbf{Pl}(0,31,0,2,1,0)_{3230}$$

$$\ell_{28} = \left[\begin{array}{cccc} 1 & \eta^{18} & \eta^{2} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{139523} = \left[\begin{array}{cccc} 1 & 3 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{139523} = \mathbf{Pl}(0,4,0,3,1,0)_{3266}$$

$$\ell_{29} = \left[\begin{array}{cccc} 1 & \eta^{30} & \eta^{14} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1000978} = \left[\begin{array}{cccc} 1 & 18 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1000978} = \mathbf{Pl}(0,29,0,18,1,0)_{4236}$$

$$\ell_{30} = \left[\begin{array}{cccc} 1 & \eta^{16} & \eta^{23} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{536955} = \left[\begin{array}{cccc} 1 & 27 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{536955} = \mathbf{Pl}(0,15,0,27,1,0)_{4789}$$

$$\ell_{31} = \left[\begin{array}{cccc} 1 & \eta^{25} & \eta & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{95129} = \left[\begin{array}{cccc} 1 & 25 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{95129} = \mathbf{Pl}(0,2,0,25,1,0)_{4650}$$

$$\ell_{32} = \left[\begin{array}{cccc} 1 & \eta^{3} & \eta^{19} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{212456} = \left[\begin{array}{cccc} 1 & 8 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{212456} = \mathbf{Pl}(0,6,0,8,1,0)_{3583}$$

$$\ell_{33} = \left[\begin{array}{cccc} 1 & \eta^{11} & \eta^{27} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{380519} = \left[\begin{array}{cccc} 1 & 7 & 11 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{380519} = \mathbf{Pl}(0,11,0,7,1,0)_{3525}$$

Rank of lines: (1056, 1082400, 2113, 35937, 754697, 547525, 858283, 458737, 614116, 563380, 996750, 1079196, 322384, 471421, 634199, 776894, 96186, 710303, 386861, 937558, 330840, 866739, 219855, 926988, 530613, 688106, 142694, 1051714, 139523, 1000978, 536955, 95129, 212456, 380519)
Rank of points on Klein quadric: (1089, 65, 3105, 3137, 3662, 3404, 3791, 4157, 3343, 4349, 3984, 4868, 4090, 4913, 4540, 4985, 4713, 5046, 3903, 4486, 4594, 4295, 4024, 3856, 4411, 3723, 3455, 3230, 3266, 4236, 4789, 4650, 3583, 3525)

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 1088 single points:
Too many to print.

Points on surface but on no line

The surface has 0 points not on any line:
The points on the surface but not on lines are:

Line Intersection Graph

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	1	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	1	1	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	1	1	1	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	1	1	1	1	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	1	1	1	1	1	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	1	1	1	1	1	1	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	1	1	1	1	1	1	1	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	1	1	1	1	1	1	1	1	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	1	1	1	1	1	1	1	1	1
25	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
26	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
27	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	1	0	1	1	1	1	1	1
28	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	1	1	0	1	1	1	1	1
29	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	1	1	1	0	1	1	1	1
30	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	1	1	1	1	0	1	1	1
31	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	1	1	1	1	1	0	1	1
32	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	1	1	1	1	1	1	0	1
33	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	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}	ℓ
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	P

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}	ℓ
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	P

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}	ℓ
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	P

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}	ℓ
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	P

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}	ℓ
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	P

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}	ℓ
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	P

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}	ℓ
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	P

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}	ℓ
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	P

Line 25 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}	ℓ
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	P

Line 26 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}	ℓ
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	P

Line 27 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}	ℓ
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	P

Line 28 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}	ℓ
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	P

Line 29 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}	ℓ
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	P

Line 30 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}	ℓ
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	$P_$

Line 31 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}	ℓ
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	$P_$

Line 32 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}	ℓ
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	$P_$

Line 33 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}	ℓ
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	$P_$

The surface has 1089 points:
Too many to print.