Rank-38 over GF(64)

January 15, 2021

The equation

The equation of the surface is :

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

(1, 1, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)
The point rank of the equation over GF(64) is 270482

General information

Number of lines	81
Number of points	5185
Number of singular points	1
Number of Eckardt points	0
Number of double points	0
Number of single points	5184
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	65^{81}
Type of lines on points	81, 1^{5184}

Singular Points

The surface has 1 singular points:

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

The 81 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & \epsilon^9 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{199727} = \begin{bmatrix} 1 & 47 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{199727} = \mathbf{Pl}(0,0,0,47,1,0)_{18195}$$

$$\ell_1 = \begin{bmatrix} 1 & \epsilon^{18} & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{49931} = \begin{bmatrix} 1 & 11 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{49931} = \mathbf{Pl}(0,0,0,11,1,0)_{13623}$$

$$\ell_2 = \left[\begin{array}{cccc} 1 & \epsilon^{36} & 0 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{153956} = \left[\begin{array}{cccc} 1 & 36 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{153956} = \mathbf{Pl}(0,0,0,36,1,0)_{16798}$$

$$\ell_3 = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{270464} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{270464} = \mathbf{Pl}(0,1,0,0,1,0)_{4289}$$

$$\ell_4 = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{21} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{15183488} = \left[\begin{array}{cccc} 1 & 0 & 57 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{15183488} = \mathbf{Pl}(0,57,0,0,1,0)_{4345}$$

$$\ell_5 = \left[\begin{array}{cccc} 1 & 0 & \epsilon^{42} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{14917184} = \left[\begin{array}{cccc} 1 & 0 & 56 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{14917184} = \mathbf{Pl}(0,56,0,0,1,0)_{4344}$$

$$\ell_6 = \left[\begin{array}{cccc} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{17043585} = \left[\begin{array}{cccc} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{17043585} = \mathbf{Pl}(0,1,0,1,0,0)_{193}$$

$$\ell_7 = \left[\begin{array}{cccc} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{274625} = \left[\begin{array}{cccc} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{274625} = \mathbf{Pl}(0,1,0,1,1,0)_{12417}$$

$$\ell_8 = \left[\begin{array}{cccc} 1 & \epsilon^{4} & \epsilon^{3} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{2201168} = \left[\begin{array}{cccc} 1 & 16 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{2201168} = \mathbf{Pl}(0,8,0,16,1,0)_{14329}$$

$$\ell_9 = \left[\begin{array}{cccc} 1 & \epsilon & \epsilon^{6} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8800514} = \left[\begin{array}{cccc} 1 & 2 & 33 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8800514} = \mathbf{Pl}(0,33,0,2,1,0)_{12576}$$

$$\ell_{10} = \left[\begin{array}{cccc} 1 & \epsilon^{8} & \epsilon^{6} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8954471} = \left[\begin{array}{cccc} 1 & 39 & 33 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8954471} = \mathbf{Pl}(0,33,0,39,1,0)_{17275}$$

$$\ell_{11} = \left[\begin{array}{cccc} 1 & \epsilon^{2} & \epsilon^{12} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{16531652} = \left[\begin{array}{cccc} 1 & 4 & 62 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{16531652} = \mathbf{Pl}(0,62,0,4,1,0)_{12859}$$

$$\ell_{12} = \left[\begin{array}{cccc} 1 & \epsilon^{15} & \epsilon^{19} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{5950229} = \left[\begin{array}{cccc} 1 & 21 & 22 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{5950229} = \mathbf{Pl}(0,22,0,21,1,0)_{14978}$$

$$\ell_{13} = \left[\begin{array}{cccc} 1 & \epsilon^{20} & \epsilon^{44} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{9241580} = \left[\begin{array}{cccc} 1 & 44 & 34 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{9241580} = \mathbf{Pl}(0,34,0,44,1,0)_{17911}$$

$$\ell_{14} = \left[\begin{array}{cccc} 1 & \epsilon^{34} & \epsilon^{58} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{840521} = \left[\begin{array}{cccc} 1 & 9 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{840521} = \mathbf{Pl}(0,3,0,9,1,0)_{13435}$$

$$\ell_{15} = \left[\begin{array}{cccc} 1 & \epsilon^{45} & \epsilon^{6} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8946149} = \left[\begin{array}{cccc} 1 & 37 & 33 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8946149} = \mathbf{Pl}(0,33,0,37,1,0)_{17021}$$

$$\ell_{16} = \left[\begin{array}{cccc} 1 & \epsilon^{30} & \epsilon^{59} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1826678} = \left[\begin{array}{cccc} 1 & 54 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1826678} = \mathbf{Pl}(0,6,0,54,1,0)_{19153}$$

$$\ell_{17} = \left[\begin{array}{cccc} 1 & \epsilon^{20} & \epsilon^{2} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1252460} = \left[\begin{array}{cccc} 1 & 44 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{1252460} = \mathbf{Pl}(0,4,0,44,1,0)_{17881}$$

$$\ell_{18} = \left[\begin{array}{cccc} 1 & \epsilon^{45} & \epsilon^{27} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12408101} = \left[\begin{array}{cccc} 1 & 37 & 46 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12408101} = \mathbf{Pl}(0,46,0,37,1,0)_{17034}$$

$$\ell_{19} = \left[\begin{array}{cccc} 1 & \epsilon^{34} & \epsilon^{16} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{11226377} = \left[\begin{array}{cccc} 1 & 9 & 42 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{11226377} = \mathbf{Pl}(0,42,0,9,1,0)_{13474}$$

$$\ell_{20} = \left[\begin{array}{cccc} 1 & \epsilon^{20} & \epsilon^{23} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{10306796} = \left[\begin{array}{cccc} 1 & 44 & 38 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{10306796} = \mathbf{Pl}(0,38,0,44,1,0)_{17915}$$

$$\ell_{21} = \left[\begin{array}{cccc} 1 & \epsilon^{45} & \epsilon^{48} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4152677} = \left[\begin{array}{cccc} 1 & 37 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4152677} = \mathbf{Pl}(0,15,0,37,1,0)_{17003}$$

$$\ell_{22} = \left[\begin{array}{cccc} 1 & \epsilon^{34} & \epsilon^{37} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{10960073} = \left[\begin{array}{cccc} 1 & 9 & 41 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{10960073} = \mathbf{Pl}(0,41,0,9,1,0)_{13473}$$

$$\ell_{23} = \begin{bmatrix} 1 & \epsilon^{57} & \epsilon^{26} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{6333041} = \begin{bmatrix} 1 & 49 & 23 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{6333041} = \mathbf{Pl}(0, 23, 0, 49, 1, 0)_{18535}$$

$$\ell_{24} = \begin{bmatrix} 1 & \epsilon^{39} & \epsilon^{62} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12815879} = \begin{bmatrix} 1 & 7 & 48 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12815879} = \mathbf{Pl}(0, 48, 0, 7, 1, 0)_{13226}$$

$$\ell_{25} = \begin{bmatrix} 1 & \epsilon^{16} & \epsilon^{12} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16689770} = \begin{bmatrix} 1 & 42 & 62 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16689770} = \mathbf{Pl}(0, 62, 0, 42, 1, 0)_{17685}$$

$$\ell_{26} = \begin{bmatrix} 1 & \epsilon^{4} & \epsilon^{24} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12054416} = \begin{bmatrix} 1 & 16 & 45 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12054416} = \mathbf{Pl}(0, 45, 0, 16, 1, 0)_{14366}$$

$$\ell_{27} = \begin{bmatrix} 1 & \epsilon^{21} & \epsilon^{49} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{8230457} = \begin{bmatrix} 1 & 57 & 30 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{8230457} = \mathbf{Pl}(0, 30, 0, 57, 1, 0)_{19558}$$

$$\ell_{28} = \begin{bmatrix} 1 & \epsilon^{4} & \epsilon^{45} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{9923984} = \begin{bmatrix} 1 & 16 & 37 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{9923984} = \mathbf{Pl}(0, 37, 0, 16, 1, 0)_{14358}$$

$$\ell_{29} = \begin{bmatrix} 1 & \epsilon^{30} & \epsilon^{38} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{13810358} = \begin{bmatrix} 1 & 54 & 51 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{13810358} = \mathbf{Pl}(0, 51, 0, 54, 1, 0)_{19198}$$

$$\ell_{30} = \begin{bmatrix} 1 & \epsilon^{27} & \epsilon^{12} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16706414} = \begin{bmatrix} 1 & 46 & 62 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16706414} = \mathbf{Pl}(0, 62, 0, 46, 1, 0)_{18193}$$

$$\ell_{31} = \begin{bmatrix} 1 & \epsilon^{40} & \epsilon^{25} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15774350} = \begin{bmatrix} 1 & 14 & 59 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15774350} = \mathbf{Pl}(0, 59, 0, 14, 1, 0)_{14126}$$

$$\ell_{32} = \begin{bmatrix} 1 & \epsilon^{5} & \epsilon^{53} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1468832} = \begin{bmatrix} 1 & 32 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1468832} = \mathbf{Pl}(0, 5, 0, 32, 1, 0)_{16358}$$

$$\ell_{33} = \begin{bmatrix} 1 & \epsilon^{39} & \epsilon^{20} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{11750663} = \begin{bmatrix} 1 & 7 & 44 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{11750663} = \mathbf{Pl}(0, 44, 0, 7, 1, 0)_{13222}$$

$$\ell_{34} = \begin{bmatrix} 1 & \epsilon^{60} & \epsilon^{34} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2450828} = \begin{bmatrix} 1 & 12 & 9 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2450828} = \mathbf{Pl}(0, 9, 0, 12, 1, 0)_{13822}$$

$$\ell_{35} = \begin{bmatrix} 1 & \epsilon^{39} & \epsilon^{41} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{7489799} = \begin{bmatrix} 1 & 7 & 28 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{7489799} = \mathbf{Pl}(0, 28, 0, 7, 1, 0)_{13206}$$

$$\ell_{36} = \begin{bmatrix} 1 & \epsilon^{17} & \epsilon^{29} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{7414901} = \begin{bmatrix} 1 & 53 & 27 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{7414901} = \mathbf{Pl}(0, 27, 0, 53, 1, 0)_{19047}$$

$$\ell_{37} = \begin{bmatrix} 1 & \epsilon^{54} & \epsilon^{3} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2176202} = \begin{bmatrix} 1 & 10 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2176202} = \mathbf{Pl}(0, 8, 0, 10, 1, 0)_{13567}$$

$$\ell_{38} = \begin{bmatrix} 1 & \epsilon^{10} & \epsilon^{22} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{5326079} = \begin{bmatrix} 1 & 63 & 19 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{5326079} = \mathbf{Pl}(0, 19, 0, 63, 1, 0)_{20309}$$

$$\ell_{39} = \begin{bmatrix} 1 & \epsilon^{2} & \epsilon^{33} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{13868612} = \begin{bmatrix} 1 & 4 & 52 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{13868612} = \mathbf{Pl}(0, 52, 0, 4, 1, 0)_{12849}$$

$$\ell_{40} = \begin{bmatrix} 1 & \epsilon^{32} & \epsilon^{3} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2242778} = \begin{bmatrix} 1 & 26 & 8 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2242778} = \mathbf{Pl}(0, 8, 0, 26, 1, 0)_{15599}$$

$$\ell_{41} = \begin{bmatrix} 1 & \epsilon^{51} & \epsilon^{10} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16885337} = \begin{bmatrix} 1 & 25 & 63 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16885337} = \mathbf{Pl}(0, 63, 0, 25, 1, 0)_{15527}$$

$$\ell_{42} = \begin{bmatrix} 1 & \epsilon^{30} & \epsilon^{17} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{14342966} = \begin{bmatrix} 1 & 54 & 53 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{14342966} = \mathbf{Pl}(0, 53, 0, 54, 1, 0)_{19200}$$

$$\ell_{43} = \begin{bmatrix} 1 & \epsilon^{42} & \epsilon^{56} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{10889336} = \begin{bmatrix} 1 & 56 & 40 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{10889336} = \mathbf{Pl}(0, 40, 0, 56, 1, 0)_{19441}$$

$$\ell_{44} = \left[\begin{array}{cccc} 1 & \epsilon^{2} & \epsilon^{54} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{2683844} = \left[\begin{array}{cccc} 1 & 4 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{2683844} = \mathbf{Pl}(0,10,0,4,1,0)_{12807}$$

$$\ell_{45} = \left[\begin{array}{cccc} 1 & \epsilon^{60} & \epsilon^{55} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{5380172} = \left[\begin{array}{cccc} 1 & 12 & 20 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{5380172} = \mathbf{Pl}(0,20,0,12,1,0)_{13833}$$

$$\ell_{46} = \left[\begin{array}{cccc} 1 & \epsilon^{8} & \epsilon^{27} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12416423} = \left[\begin{array}{cccc} 1 & 39 & 46 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12416423} = \mathbf{Pl}(0,46,0,39,1,0)_{17288}$$

$$\ell_{47} = \left[\begin{array}{cccc} 1 & \epsilon^{42} & \epsilon^{35} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{5030648} = \left[\begin{array}{cccc} 1 & 56 & 18 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{5030648} = \mathbf{Pl}(0,18,0,56,1,0)_{19419}$$

$$\ell_{48} = \left[\begin{array}{cccc} 1 & \epsilon^{40} & \epsilon^{4} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4323278} = \left[\begin{array}{cccc} 1 & 14 & 16 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4323278} = \mathbf{Pl}(0,16,0,14,1,0)_{14083}$$

$$\ell_{49} = \left[\begin{array}{cccc} 1 & \epsilon^{5} & \epsilon^{32} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{7061216} = \left[\begin{array}{cccc} 1 & 32 & 26 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{7061216} = \mathbf{Pl}(0,26,0,32,1,0)_{16379}$$

$$\ell_{50} = \left[\begin{array}{cccc} 1 & \epsilon^{27} & \epsilon^{54} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{2858606} = \left[\begin{array}{cccc} 1 & 46 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{2858606} = \mathbf{Pl}(0,10,0,46,1,0)_{18141}$$

$$\ell_{51} = \left[\begin{array}{cccc} 1 & \epsilon^{8} & \epsilon^{48} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4160999} = \left[\begin{array}{cccc} 1 & 39 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4160999} = \mathbf{Pl}(0,15,0,39,1,0)_{17257}$$

$$\ell_{52} = \left[\begin{array}{cccc} 1 & \epsilon^{32} & \epsilon^{24} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12096026} = \left[\begin{array}{cccc} 1 & 26 & 45 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12096026} = \mathbf{Pl}(0,45,0,26,1,0)_{15636}$$

$$\ell_{53} = \left[\begin{array}{cccc} 1 & \epsilon^{21} & \epsilon^{28} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{16485881} = \left[\begin{array}{cccc} 1 & 57 & 61 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{16485881} = \mathbf{Pl}(0,61,0,57,1,0)_{19589}$$

$$\ell_{54} = \left[\begin{array}{cccc} 1 & \epsilon & \epsilon^{27} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12262466} = \left[\begin{array}{cccc} 1 & 2 & 46 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{12262466} = \mathbf{Pl}(0,46,0,2,1,0)_{12589}$$

$$\ell_{55} = \left[\begin{array}{cccc} 1 & \epsilon & \epsilon^{48} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4007042} = \left[\begin{array}{cccc} 1 & 2 & 15 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{4007042} = \mathbf{Pl}(0,15,0,2,1,0)_{12558}$$

$$\ell_{56} = \left[\begin{array}{cccc} 1 & \epsilon^{16} & \epsilon^{33} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{14026730} = \left[\begin{array}{cccc} 1 & 42 & 52 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{14026730} = \mathbf{Pl}(0,52,0,42,1,0)_{17675}$$

$$\ell_{57} = \left[\begin{array}{cccc} 1 & \epsilon^{51} & \epsilon^{31} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{3570137} = \left[\begin{array}{cccc} 1 & 25 & 13 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{3570137} = \mathbf{Pl}(0,13,0,25,1,0)_{15477}$$

$$\ell_{58} = \left[\begin{array}{cccc} 1 & \epsilon^{54} & \epsilon^{45} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{9899018} = \left[\begin{array}{cccc} 1 & 10 & 37 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{9899018} = \mathbf{Pl}(0,37,0,10,1,0)_{13596}$$

$$\ell_{59} = \left[\begin{array}{cccc} 1 & \epsilon^{17} & \epsilon^{8} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{10610549} = \left[\begin{array}{cccc} 1 & 53 & 39 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{10610549} = \mathbf{Pl}(0,39,0,53,1,0)_{19059}$$

$$\ell_{60} = \left[\begin{array}{cccc} 1 & \epsilon^{10} & \epsilon & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{798911} = \left[\begin{array}{cccc} 1 & 63 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{798911} = \mathbf{Pl}(0,2,0,63,1,0)_{20292}$$

$$\ell_{61} = \left[\begin{array}{cccc} 1 & \epsilon^{51} & \epsilon^{52} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{13423385} = \left[\begin{array}{cccc} 1 & 25 & 50 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{13423385} = \mathbf{Pl}(0,50,0,25,1,0)_{15514}$$

$$\ell_{62} = \left[\begin{array}{cccc} 1 & \epsilon^{5} & \epsilon^{11} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8392736} = \left[\begin{array}{cccc} 1 & 32 & 31 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{8392736} = \mathbf{Pl}(0,31,0,32,1,0)_{16384}$$

$$\ell_{63} = \left[\begin{array}{cccc} 1 & \epsilon^{40} & \epsilon^{46} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{11513486} = \left[\begin{array}{cccc} 1 & 14 & 43 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{11513486} = \mathbf{Pl}(0,43,0,14,1,0)_{14110}$$

$$\ell_{64} = \left[\begin{array}{cccc} 1 & \epsilon^{27} & \epsilon^{33} & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{14043374} = \left[\begin{array}{cccc} 1 & 46 & 52 & 0 \\ 0 & 0 & 0 & 1 \end{array}\right]_{14043374} = \mathbf{Pl}(0,52,0,46,1,0)_{18183}$$

$$\ell_{65} = \begin{bmatrix} 1 & \epsilon^{57} & \epsilon^{5} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{8729777} = \begin{bmatrix} 1 & 49 & 32 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{8729777} = \mathbf{Pl}(0,32,0,49,1,0)_{18544}$$

$$\ell_{66} = \begin{bmatrix} 1 & \epsilon^{15} & \epsilon^{40} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3819797} = \begin{bmatrix} 1 & 21 & 14 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3819797} = \mathbf{Pl}(0,14,0,21,1,0)_{14970}$$

$$\ell_{67} = \begin{bmatrix} 1 & \epsilon^{15} & \epsilon^{61} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{6482837} = \begin{bmatrix} 1 & 21 & 24 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{6482837} = \mathbf{Pl}(0,24,0,21,1,0)_{14980}$$

$$\ell_{68} = \begin{bmatrix} 1 & \epsilon^{54} & \epsilon^{24} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12029450} = \begin{bmatrix} 1 & 10 & 45 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{12029450} = \mathbf{Pl}(0,45,0,10,1,0)_{13604}$$

$$\ell_{69} = \begin{bmatrix} 1 & \epsilon^{17} & \epsilon^{50} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16202933} = \begin{bmatrix} 1 & 53 & 60 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{16202933} = \mathbf{Pl}(0,60,0,53,1,0)_{19080}$$

$$\ell_{70} = \begin{bmatrix} 1 & \epsilon^{10} & \epsilon^{43} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4793471} = \begin{bmatrix} 1 & 63 & 17 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4793471} = \mathbf{Pl}(0,17,0,63,1,0)_{20307}$$

$$\ell_{71} = \begin{bmatrix} 1 & \epsilon^{60} & \epsilon^{13} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{7776908} = \begin{bmatrix} 1 & 12 & 29 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{7776908} = \mathbf{Pl}(0,29,0,12,1,0)_{13842}$$

$$\ell_{72} = \begin{bmatrix} 0 & 1 & \epsilon^{21} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17047225} = \begin{bmatrix} 0 & 1 & 57 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17047225} = \mathbf{Pl}(0,57,0,1,0,0)_{249}$$

$$\ell_{73} = \begin{bmatrix} 1 & 1 & \epsilon^{21} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15187649} = \begin{bmatrix} 1 & 1 & 57 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15187649} = \mathbf{Pl}(0,57,0,1,1,0)_{12473}$$

$$\ell_{74} = \begin{bmatrix} 0 & 1 & \epsilon^{42} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17047160} = \begin{bmatrix} 0 & 1 & 56 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{17047160} = \mathbf{Pl}(0,56,0,1,0,0)_{248}$$

$$\ell_{75} = \begin{bmatrix} 1 & 1 & \epsilon^{42} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{14921345} = \begin{bmatrix} 1 & 1 & 56 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{14921345} = \mathbf{Pl}(0,56,0,1,1,0)_{12472}$$

$$\ell_{76} = \begin{bmatrix} 1 & \epsilon^{21} & \epsilon^{7} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{9561977} = \begin{bmatrix} 1 & 57 & 35 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{9561977} = \mathbf{Pl}(0,35,0,57,1,0)_{19563}$$

$$\ell_{77} = \begin{bmatrix} 1 & \epsilon^{16} & \epsilon^{54} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2841962} = \begin{bmatrix} 1 & 42 & 10 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2841962} = \mathbf{Pl}(0,10,0,42,1,0)_{17633}$$

$$\ell_{78} = \begin{bmatrix} 1 & \epsilon^{32} & \epsilon^{45} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{9965594} = \begin{bmatrix} 1 & 26 & 37 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{9965594} = \mathbf{Pl}(0,37,0,26,1,0)_{15628}$$

$$\ell_{79} = \begin{bmatrix} 1 & \epsilon^{42} & \epsilon^{14} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15682808} = \begin{bmatrix} 1 & 56 & 58 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{15682808} = \mathbf{Pl}(0,58,0,56,1,0)_{19459}$$

$$\ell_{80} = \begin{bmatrix} 1 & \epsilon^{57} & \epsilon^{47} & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{14854769} = \begin{bmatrix} 1 & 49 & 55 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{14854769} = \mathbf{Pl}(0,55,0,49,1,0)_{18567}$$

Rank of lines: (199727, 49931, 153956, 270464, 15183488, 14917184, 17043585, 274625, 2201168, 8800514, 8954471, 16531652, 5950229, 9241580, 840521, 8946149, 1826678, 1252460, 12408101, 11226377, 10306796, 4152677, 10960073, 6333041, 12815879, 16689770, 12054416, 8230457, 9923984, 13810358, 16706414, 15774350, 1468832, 11750663, 2450828, 7489799, 7414901, 2176202, 5326079, 13868612, 2242778, 16885337, 14342966, 10889336, 2683844, 5380172, 12416423, 5030648, 4323278, 7061216, ...9965594, 15682808, 14854769)
Rank of points on Klein quadric: (18195, 13623, 16798, 4289, 4345, 4344, 193, 12417, 14329, 12576, 17275, 12859, 14978, 17911, 13435, 17021, 19153, 17881, 17034, 13474, 17915, 17003, 13473, 18535, 13226, 17685, 14366, 19558, 14358, 19198, 18193, 14126, 16358, 13222, 13822, 13206, 19047, 13567, 20309, 12849, 15599, 15527, 19200, 19441, 12807, 13833, 17288, 19419, 14083, 16379, ...15628, 19459, 18567)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

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

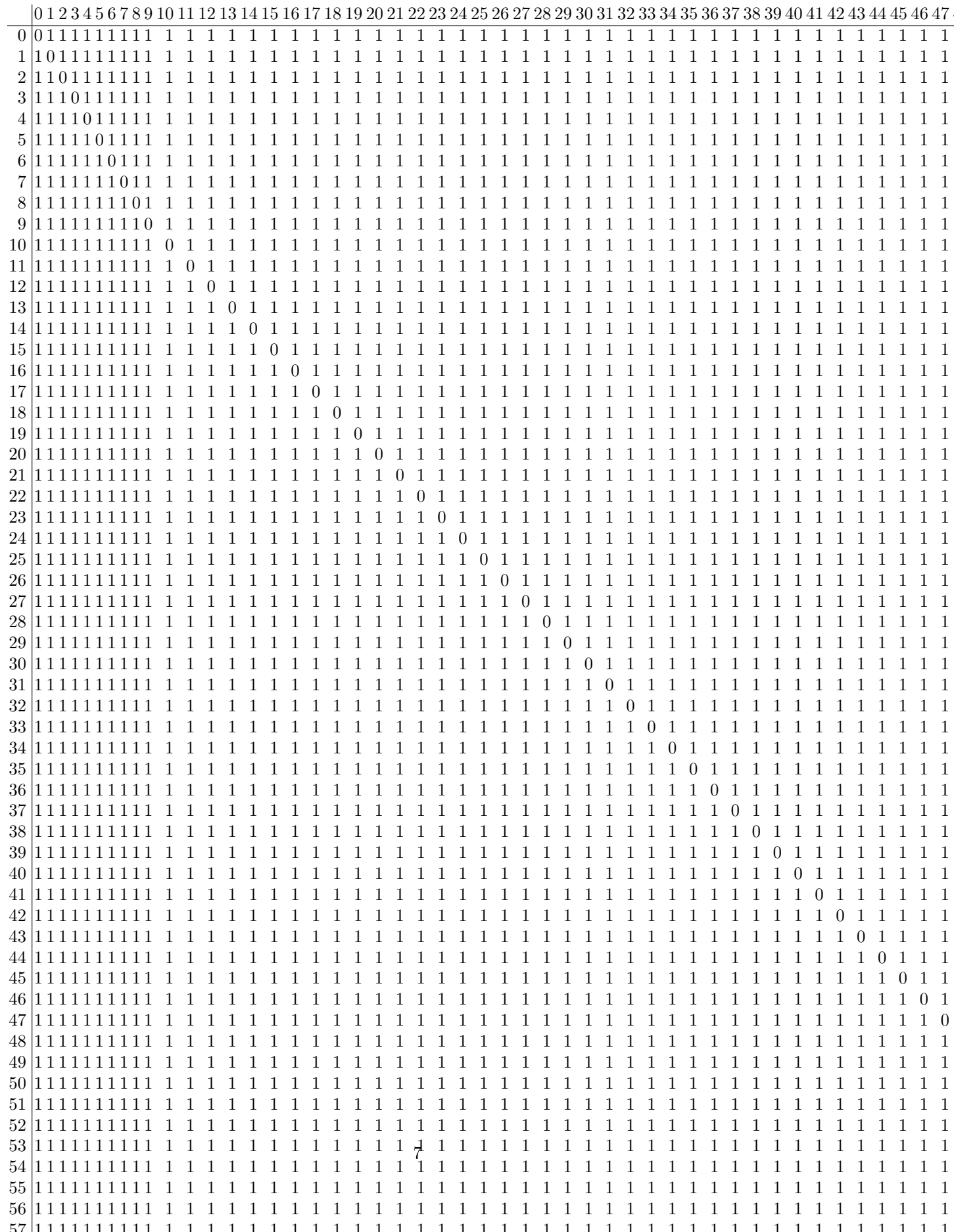
Single Points

The surface has 5184 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



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}	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_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}	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_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}	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_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}	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_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}	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_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_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}	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_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}	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_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}	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_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}	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_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}	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_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}	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_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}	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_3

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_3

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_3

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_3

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_3

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_3

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_3

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_3

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_3

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_3

Line 34 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_3

Line 35 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_3

Line 36 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_3

Line 37 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_3

Line 38 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_3	P_3

Line 39 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_3	P_3

Line 40 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_3	P_3

Line 41 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_3	P_3

Line 42 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_3	P_3

Line 43 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_3	P_3

Line 44 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_3	P_3

Line 45 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_3	P_3

Line 46 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_3	P_3

Line 47 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_3	P_3

Line 48 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_3	P_3

Line 49 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_3	P_3

Line 50 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_3	P_3

Line 51 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_3

Line 52 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_3

Line 53 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_3

Line 54 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_3

Line 55 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_3

Line 56 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_3

Line 57 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_3

Line 58 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_3

Line 59 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_3

Line 60 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_3

Line 61 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_3

Line 62 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_3

Line 63 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_3

Line 64 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	

Line 65 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	

Line 66 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	

Line 67 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	

Line 68 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	

Line 69 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	

Line 70 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	

Line 71 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	

Line 72 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	

Line 73 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	

Line 74 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	

Line 75 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	

Line 76 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	

Line 77 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 78 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 79 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 80 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 5185 points:
Too many to print.