Rank-66755 over GF(8)

January 15, 2021

The equation

The equation of the surface is:

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

(0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0) The point rank of the equation over ${\rm GF}(8)$ is -1991732659

General information

Number of lines	73
Number of points	137
Number of singular points	1
Number of Eckardt points	0
Number of double points	0
Number of single points	0
Number of points off lines	64
Number of Hesse planes	0
Number of axes	0
Type of points on lines	9^{73}
Type of lines on points	$9^{73}, 0^{64}$

Singular Points

The surface has 1 singular points:

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

The 73 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4672} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4672} = \mathbf{Pl}(0, 0, 0, 0, 0, 1)_{649}$$

$$\begin{split} \ell_1 &= \begin{bmatrix} 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4680} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4680} = \mathbf{PI}(0,0,0,1,0,0)_{17} \\ \ell_2 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4673} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4673} = \mathbf{PI}(0,0,0,1,0,1)_{769} \\ \ell_3 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4678} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{4678} = \mathbf{PI}(0,0,0,6,0,1)_{844} \\ \ell_4 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4676} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{4676} = \mathbf{PI}(0,0,0,4,0,1)_{814} \\ \ell_5 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4675} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{4675} = \mathbf{PI}(0,0,0,3,0,1)_{799} \\ \ell_6 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4679} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4679} = \mathbf{PI}(0,0,0,7,0,1)_{859} \\ \ell_7 &= \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4677} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{4674} = \mathbf{PI}(0,0,0,5,0,1)_{829} \\ \ell_9 &= \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4677} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4677} = \mathbf{PI}(0,0,0,5,0,1)_{829} \\ \ell_9 &= \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4744} = \begin{bmatrix} 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4677} = \mathbf{PI}(0,1,0,0,0,1)_{657} \\ \ell_{11} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4681} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4744} = \mathbf{PI}(0,1,0,0,0,1)_{662} \\ \ell_{12} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4699} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4699} = \mathbf{PI}(0,4,0,0,1)_{669} \\ \ell_{13} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4699} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4699} = \mathbf{PI}(0,7,0,0,0,1)_{663} \\ \ell_{14} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4699} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4699} = \mathbf{PI}(0,5,0,0,0,1)_{663} \\ \ell_{15} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4689} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4689} = \mathbf{PI}(0,1,0,1,0,1,0,1)_{777} \\ \ell_{19} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4732} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4689} = \mathbf{PI}(0,5,0,0,0,1)_{663} \\ \ell_{17} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4732} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{4732} = \mathbf{PI}(0,4,0,4,0,1)_{825} \\ \ell_{20} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4712} = \begin{bmatrix} 0 & 1 &$$

$$\begin{split} \ell_{22} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4742} = \begin{bmatrix} 0 & 1 & 0 & 7 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4742} = \mathbf{PI}(0,7,0,7,0,1)_{873} \\ \ell_{23} &= \begin{bmatrix} 0 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{4692} = \begin{bmatrix} 0 & 1 & 0 & 2 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{4692} = \mathbf{PI}(0,2,0,2,0,1)_{793} \\ \ell_{24} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4722} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4722} = \mathbf{PI}(0,5,0,5,0,1)_{841} \\ \ell_{25} &= \begin{bmatrix} 0 & 1 & \gamma^6 & 0 \\ 0 & 0 & 1 \end{bmatrix}_{4734} = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4734} = \mathbf{PI}(0,6,0,1,0,0)_{30} \\ \ell_{26} &= \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{4683} = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4683} = \mathbf{PI}(0,1,0,2,0,1)_{792} \\ \ell_{27} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4727} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4727} = \mathbf{PI}(0,6,0,1,0,1)_{782} \\ \ell_{28} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4713} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4713} = \mathbf{PI}(0,4,0,5,0,1)_{840} \\ \ell_{29} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4705} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{4705} = \mathbf{PI}(0,3,0,6,0,1)_{854} \\ \ell_{30} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4738} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{4694} = \mathbf{PI}(0,7,0,3,0,1)_{813} \\ \ell_{31} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4738} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4724} = \mathbf{PI}(0,5,0,7,0,1)_{871} \\ \ell_{33} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4734} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4724} = \mathbf{PI}(0,4,0,1,0,0)_{28} \\ \ell_{44} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4684} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4733} = \mathbf{PI}(0,4,0,1,0,0)_{28} \\ \ell_{35} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4734} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4733} = \mathbf{PI}(0,4,0,1,0,0)_{28} \\ \ell_{35} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4734} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4733} = \mathbf{PI}(0,4,0,1,0,0)_{28} \\ \ell_{35} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4734} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4733} = \mathbf{PI}(0,5,0,7,0,1)_{872} \\ \ell_{36} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4734} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4733} = \mathbf{PI}(0,5,0,7,0,1)_{822} \\ \ell_{36} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0$$

$$\begin{split} \ell_{43} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{4728} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{4728} = \mathbf{PI}(0,6,0,2,0,1)_{797} \\ \ell_{44} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4715} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4715} = \mathbf{PI}(0,4,0,7,0,1)_{870} \\ \ell_{45} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4700} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{4700} = \mathbf{PI}(0,3,0,1,0,1)_{779} \\ \ell_{46} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4741} = \begin{bmatrix} 0 & 1 & 0 & 7 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4995} = \mathbf{PI}(0,7,0,6,0,1)_{838} \\ \ell_{47} &= \begin{bmatrix} 0 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4720} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4995} = \mathbf{PI}(0,2,0,5,0,1)_{838} \\ \ell_{48} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4720} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4720} = \mathbf{PI}(0,7,0,1,0,0)_{31} \\ \ell_{49} &= \begin{bmatrix} 0 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4686} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4686} = \mathbf{PI}(0,7,0,1,0,0)_{31} \\ \ell_{50} &= \begin{bmatrix} 0 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{4730} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4686} = \mathbf{PI}(0,1,0,5,0,1)_{837} \\ \ell_{51} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4711} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{4711} = \mathbf{PI}(0,4,0,3,0,1)_{810} \\ \ell_{53} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4711} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{4711} = \mathbf{PI}(0,4,0,3,0,1)_{810} \\ \ell_{54} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4697} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4736} = \mathbf{PI}(0,7,0,1,0,1)_{783} \\ \ell_{55} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4697} = \begin{bmatrix} 0 & 1 & 0 & 2 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4697} = \mathbf{PI}(0,2,0,7,0,1)_{868} \\ \ell_{56} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4698} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{4698} = \mathbf{PI}(0,1,0,6,0,1)_{852} \\ \ell_{59} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4720} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{4697} = \mathbf{PI}(0,4,0,2,0,1)_{795} \\ \ell_{60} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4700} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4720} = \mathbf{PI}(0,6,0,3,0,1)_{812} \\ \ell_{60} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4700} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4700} = \mathbf{PI}(0,4,0,2,0,1)_{795} \\ \ell_{61} &= \begin{bmatrix} 0 & 1 & 0$$

$$\begin{split} \ell_{64} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{4721} = \begin{bmatrix} 0 & 1 & 0 & 5 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{4721} = \mathbf{PI}(0,5,0,4,0,1)_{826} \\ \ell_{65} &= \begin{bmatrix} 0 & 1 & \gamma^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4725} = \begin{bmatrix} 0 & 1 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4725} = \mathbf{PI}(0,5,0,1,0,0)_{29} \\ \ell_{66} &= \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4688} = \begin{bmatrix} 0 & 1 & 0 & 1 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4688} = \mathbf{PI}(0,1,0,7,0,1)_{867} \\ \ell_{67} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4731} = \begin{bmatrix} 0 & 1 & 0 & 6 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4731} = \mathbf{PI}(0,6,0,5,0,1)_{842} \\ \ell_{68} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4714} = \begin{bmatrix} 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{4714} = \mathbf{PI}(0,4,0,6,0,1)_{855} \\ \ell_{69} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{4703} = \begin{bmatrix} 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{4703} = \mathbf{PI}(0,3,0,4,0,1)_{824} \\ \ell_{70} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{4737} = \begin{bmatrix} 0 & 1 & 0 & 7 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{4737} = \mathbf{PI}(0,7,0,2,0,1)_{798} \\ \ell_{71} &= \begin{bmatrix} 0 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4693} = \begin{bmatrix} 0 & 1 & 0 & 2 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4718} = \mathbf{PI}(0,5,0,1,0,1)_{781} \end{aligned}$$

Rank of lines: (4672, 4680, 4673, 4678, 4676, 4675, 4679, 4674, 4677, 4744, 4681, 4726, 4708, 4699, 4735, 4690, 4717, 4689, 4682, 4732, 4712, 4702, 4742, 4692, 4722, 4734, 4683, 4727, 4713, 4705, 4738, 4694, 4724, 4716, 4684, 4733, 4709, 4704, 4739, 4696, 4719, 4707, 4685, 4728, 4715, 4700, 4741, 4695, 4720, 4743, ...4737, 4693, 4718)

Rank of points on Klein quadric: (649, 17, 769, 844, 814, 799, 859, 784, 829, 1, 657, 662, 660, 659, 663, 658, 661, 25, 777, 857, 825, 809, 873, 793, 841, 30, 792, 782, 840, 854, 813, 823, 871, 28, 807, 872, 780, 839, 828, 853, 796, 27, 822, 797, 870, 779, 858, 838, 811, 31, ...798, 808, 781)

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

The single points on the surface are:

Points on surface but on no line

The surface has 64 points not on any line: The points on the surface but not on lines are:

$0: P_0 = (1, 0, 0, 0)$
$1: P_4 = (1, 1, 1, 1)$
$2: P_{83} = (1, 1, 0, 1)$
$3: P_{94} = (4, 2, 0, 1)$
$4: P_{103} = (5, 3, 0, 1)$
$5: P_{113} = (7, 4, 0, 1)$
$6: P_{120} = (6, 5, 0, 1)$
$7: P_{125} = (3, 6, 0, 1)$
$8: P_{132} = (2,7,0,1)$
9: $P_{139} = (1, 0, 1, 1)$
$10: P_{160} = (7, 2, 1, 1)$
$11: P_{168} = (7, 3, 1, 1)$
$12: P_{171} = (2,4,1,1)$
$13: P_{179} = (2, 5, 1, 1)$
$14: P_{189} = (4, 6, 1, 1)$
$15: P_{197} = (4,7,1,1)$
$16: P_{205} = (4, 0, 2, 1)$
17: $P_{216} = (7, 1, 2, 1)$
$18: P_{221} = (4, 2, 2, 1)$
$19: P_{232} = (7, 3, 2, 1)$
$20: P_{239} = (6,4,2,1)$
$21: P_{246} = (5, 5, 2, 1)$
$22: P_{255} = (6, 6, 2, 1)$
$23: P_{262} = (5, 7, 2, 1)$
$24: P_{270} = (5, 0, 3, 1)$
$25: P_{280} = (7, 1, 3, 1)$
$26: P_{288} = (7, 2, 3, 1)$
$27: P_{294} = (5, 3, 3, 1)$
$28: P_{300} = (3,4,3,1)$
$29: P_{306} = (1, 5, 3, 1)$
$30: P_{314} = (1,6,3,1)$
$31: P_{324} = (3,7,3,1)$
$32: P_{336} = (7, 0, 4, 1)$

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33: P_{339} = (2,1,4,1)
34: P_{351} = (6, 2, 4, 1)
35: P_{356} = (3, 3, 4, 1)
36: P_{368} = (7, 4, 4, 1)
37: P_{371} = (2, 5, 4, 1)
38: P_{383} = (6, 6, 4, 1)
39: P_{388} = (3, 7, 4, 1)
40: P_{399} = (6, 0, 5, 1)
41: P_{403} = (2, 1, 5, 1)
42: P_{414} = (5, 2, 5, 1)
43 : P_{418} = (1, 3, 5, 1)
44: P_{427} = (2, 4, 5, 1)
45: P_{439} = (6, 5, 5, 1)
46: P_{442} = (1, 6, 5, 1)
47: P_{454} = (5,7,5,1)
48: P_{460} = (3, 0, 6, 1)
49: P_{469} = (4, 1, 6, 1)
50: P_{479} = (6, 2, 6, 1)
51: P_{482} = (1, 3, 6, 1)
52: P_{495} = (6, 4, 6, 1)
53: P_{498} = (1, 5, 6, 1)
54: P_{508} = (3, 6, 6, 1)
55: P_{517} = (4,7,6,1)
56: P_{523} = (2,0,7,1)
57: P_{533} = (4, 1, 7, 1)
58: P_{542} = (5, 2, 7, 1)
59: P_{548} = (3, 3, 7, 1)
60: P_{556} = (3, 4, 7, 1)
61: P_{566} = (5, 5, 7, 1)
62: P_{573} = (4, 6, 7, 1)
63: P_{579} = (2, 7, 7, 1)
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Line Intersection Graph

	1																																										
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	3 1 1	110	1 1	1 1	11	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	1	1	1
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Neighbor sets in the line intersection graph:

т	:	Ω	intersects
н.	ıne	u	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_1	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{1}							

Line 1 intersects

Lir	ie	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
in poir	nt	P_1	P_3	P_{82}	P_{90}	P_{98}	P_{106}	P_{114}	P_{122}	P_{130}	P_3	P_{82}	P_{90}	P_{98}	\overline{P}							

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}
in point	P_1	P_{138}	P_{146}	P_{153}	P_{161}	P_{169}	P_{177}	P_{185}	P_{193}	P_{146}	P_{138}	P_{161}							

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}	
in point	P_1	P_{201}	P_{209}	P_{217}	P_{225}	P_{233}	P_{241}	P_{249}	P_{257}	P_{217}	P_{225}	P_{201}								

Line 4 intersects

ĺ	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}
	in point	P_1	P_{265}	P_{273}	P_{281}	P_{289}	P_{297}	P_{305}	P_{313}	P_{321}	P_{289}	P_{281}	P_{273}							

${\bf Line~5~intersects}$

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}
in point	P_1	P_{329}	P_{337}	P_{345}	P_{353}	P_{361}	P_{369}	P_{377}	P_{385}	P_{361}	P_{369}	P_{377}							

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}
in point	P_1	P_{393}	P_{401}	P_{409}	P_{417}	P_{425}	P_{433}	P_{441}	P_{449}	P_{433}	P_{425}	P_{449}							

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}
in point	P_1	P_{457}	P_{465}	P_{473}	P_{481}	P_{489}	P_{497}	P_{505}	P_{513}	P_{505}	P_{513}	P_{489}							

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}
in point	P_1	P_{521}	P_{529}	P_{537}	P_{545}	P_{553}	P_{561}	P_{569}	P_{577}	P_{577}	P_{569}	P_{561}							

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}	
in point	P_2	P_3	P_{138}	P_{201}	P_{265}	P_{329}	P_{393}	P_{457}	P_{521}	P_2	P_3	P_{138}	P_{201}							

${\rm Line}\ 10\ {\rm intersects}$

ĺ	$_{ m Line}$	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}
Ī	in point	P_2	P_{82}	P_{146}	P_{209}	P_{273}	P_{337}	P_{401}	P_{465}	P_{529}	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{146}	P_{82}	P_{273}

Line 11 intersects

$\operatorname{Lin}\epsilon$	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}
in point	P_2	P_{90}	P_{153}	P_{217}	P_{281}	P_{345}	P_{409}	P_{473}	P_{537}	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{217}	P_{281}	P_{90}

Line 12 int	tersec	ets																		
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}	$ \ell$	219
in point	P_2	P_{98}		P_{225}			P_{417}	P_{481}			P_2	P_2	P_2	P_2	P_2	P_2	P_{289}	P_{225}	$\frac{1}{5}$	161
Line 13 int	tersec																			
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}	.8 /	ℓ_{19}
in point	P_2	P_{106}	P_{169}	P_{233}	P_{297}	P_{361}	P_{425}	P_{489}		P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{361}			P_{489}
Line 14 int	i ersec	:ts																		
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}	.8	ℓ_{19}
in point	P_2	P_{114}	P_{177}	P_{241}	P_{305}	P_{369}	P_{433}	P_{497}	P_{561}	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{433}	P_{36}	₆₉ F	P_{561}
Line 15 int	- iersec	-:ts	_	_	_	_	_	_	_	_	_			_			_	_	_	
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_{18}	.8/	ℓ_{19}
in point	P_2	P_{122}	P_{185}	P_{249}	P_{313}	P_{377}	P_{441}	P_{505}	P_{569}	P_2	P_2	P_2	P_2	P_2	P_2	P_2		P_{56}		P_{377}
Line 16 int			_		_															
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_{15}				ℓ_{19}
in point	P_2	P_{130}	P_{193}	P_{257}	P_{321}	P_{385}	P_{449}	P_{513}	P_{577}	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{577}			P_{449}
Line 17 int																				
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}		5 l	216	ℓ_{18}
in point	P_{19}	P_3	P_{146}	P_{217}	P_{289}	P_{361}	P_{433}	P_{505}	P_{577}	P_3	P_{146}	P_{21}	$\overline{}_{17} \mid P$	289	P_{361}	P_{433}	P_{50}	P_{5}	577	P_{19}
Line 18 int																				
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9		10 \(\ell \)	ℓ_{11}	ℓ_{12}	ℓ_{13}			ℓ_{15}	ℓ_{16}	ℓ
in point	P_{19}	P_{82}	P_{138}	P_{225}	P_{281}	P_{369}	P_{425}	P_{513}	P_{569}	P_{138}	$8 \mid P$	$P_{82} \mid P$	P ₂₈₁	P_{225}	P_{425}	$P_3 \mid P_3$	$_{369} \mid P$	569	P_{513}	$\mid P$
Line 19 int																				
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_{16}	ℓ
in point	P_{19}	P_{90}	P_{161}	P_{201}	P_{273}	P_{377}	P_{449}	P_{489}	P_{561}	P_{201}	$1 \mid P$	P_{273}	P_{90}	P_{161}	P_{489}	P_5	$_{61} \mid P$	377	P_{449}	P
Line 20 int					<u>. </u>		· · · ·													
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_{15}	ℓ_{16}	1
in point	P_{19}	P_{98}	P_{153}	P_{209}	P_{265}	P_{385}	P_{441}	P_{497}	P_{553}	P_{265}	$5 \mid P$	209	P_{153}	P_{98}	P_{553}	$3 \mid P_4$	$P_{497} \mid P_{1}$	9441	P_{385}	P
Line 21 int																				
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}	
in point	P_{19}	P_{106}	P_{177}	P_{249}	P_{321}	P_{329}	P_{401}	P_{473}	$_{3} \mid P_{545}$	P_{32}	29 <i>I</i>	P_{401}	P_{473}	P_{54}	$_{15} \mid P$	106	P_{177}	P_{249}	P_{32}	21
Line 22 int																				
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}	
in point	P_{19}	P_{114}	P_{169}	P_{257}	P_{313}	P_{337}	P_{393}	P_{481}	P_{537}	P_{39}	$93 \mid I$	P_{337}	P_{537}	P_{48}	P	169	P_{114}	P_{313}	P_{25}	57

in point $ P_{19} P_{130} P_{185} P_{241} P_{297} P_{353} P_{409} P_{465} P_{521} P_{521} P_{465} P_{409} P_{353} P_{297} P_{241} P_{185} P_{130} P_{185} P_{130} P_{185} P_{18$	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}
	in point	P_{19}	P_{130}	P_{185}	P_{241}		P_{353}	P_{409}		P_{521}	P_{521}			P_{353}	1 1)	I /)	P_{185}	

 ℓ_7

 P_{457}

 ℓ_8

 P_{529}

 ℓ_9

 P_{457}

 ℓ_{10}

 P_{529}

 ℓ_{11}

 P_{345}

 ℓ_{12}

 P_{417}

 ℓ_{13}

 P_{233}

 ℓ_{14}

 P_{305}

 ℓ_{15}

 ℓ_{16}

 ℓ_6

 P_{417}

 ℓ_4

 ℓ_3

 P_{193} P_{233}

 ℓ_5

 P_{305} P_{345}

 ${\rm Line}~23~{\rm intersects}$

in point P_{19}

 ${\bf Line~24~intersects}$

 ℓ_1

 P_{122}

 ℓ_2

Line 25 in	ersec	ts																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}		£11	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}		ℓ_{16}	ℓ_1
in point	P_{27}	P_3	P_{153}	P_{233}	P_{313}	P_{369}	P_{449}	P_{465}	P_{545}	P_3	P_{46}	$_{5} \mid P$	153	P_{545}	P_{233}	P_{369}	P_{31}	$_3 \mid I$	449	P_3
Line 26 in	ersec	$^{ m ts}$																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9		210	ℓ_{11}	ℓ_{12}	ℓ_{13}		1 \(\ell \)	15	ℓ_{16}	
in point	P_{27}	P_{82}	P_{161}	P_{241}	P_{321}	P_{361}	P_{441}	P_{457}	P_{537}	P_{45}	$_{57} \mid I$	P ₈₂	P_{537}	P_{161}	P_{36}	$_{1} \mid P_{24}$	$_{1} \mid P$	441	P_{321}	1
Line 27 in	ersec	$_{ m ts}$																		
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}	1 \(\ell \)	15	ℓ_{16}	T
in point	P_{27}	P_{90}	P_{138}	P_{249}	P_{297}	P_{385}	P_{433}	P_{481}	P_{529}	P_{13}	₈₈ I	D_{529}	P_{90}	P_{481}	P_{29}	$_{7} P_{43}$	3 P	249	P_{385}	
Line 28 in	ersec	ts																		
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}	1 1	15	ℓ_{16}	Τ
in point	P_{27}	P_{98}	P_{146}	P_{257}	P_{305}	P_{377}	P_{425}	P_{473}	P_{521}	P_{52}		D ₁₄₆	P_{473}					377	P_{257}	
Line 29 in	ersec	ts																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ	9	ℓ_{10}	ℓ_1	$_1$ ℓ_1	$\frac{1}{2}$	13	214	ℓ_{15}	ℓ_1	6
in point	P_{27}	P_{106}	P_{185}	P_{201}	P_{281}	P_{337}	P_{417}	P_{497}	P_{577}	P_2	201	P_{337}	P_{28}	P_4	17 P	$P_{106} \mid F$		P_{185}	P_5	77
Line 30 in	ersec	ts																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ	9	ℓ_{10}	ℓ_1				214	ℓ_{15}	ℓ_1	6
in point	P_{27}	P_{114}	P_{193}	P_{209}	P_{289}	P_{329}	P_{409}	P_{489}	P_{569}	P_3	329	P_{209}	P_{40}	$_{09} P_2$	$_{89}$ P	2 ₄₈₉ F	114	P_{569}	P_1	93
Line 31 in	ersec	$_{ m ts}$																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ	9	ℓ_{10}	ℓ_1	ℓ_1	$\frac{1}{2}$ ℓ	13	214	ℓ_{15}	ℓ_1	6
in point	P_{27}	P_{122}		P_{217}								P_{401}	P_{21}	P_3	53 P	7 ₁₆₉ F		P_{122}		
Line 32 in	ersec	ts																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	1 1	9	ℓ_{10}	ℓ_1	$_1$ ℓ_1	$\frac{1}{2}$ ℓ	13	214	ℓ_{15}	ℓ_1	6
in point	P_{27}	P_{130}								_		P_{273}						P_{505}		
Line 33 in	ersec	ts																		
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_1
in point	P_{35}	P_3	P_{161}	P_{249}	P_{305}	P_{337}	P_{409}	P_{513}	P_{553}	P_3	P_{33}			P_{161}	P_{553}	P_{305}	P_{24}		513	P_3
Line 34 in	ersec	ts																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ	210	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	1 \(\ell \)	15	ℓ_{16}	Т
in point	P_{35}	P_{82}	P_{153}	P_{257}	P_{297}	P_{329}	P_{417}		P_{561}	P_{32}			P_{153}					505	P_{257}	1
Line 35 in	ersec	ts																		
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}	1 \(\ell \)	15	ℓ_{16}	\top
in point	P_{35}	P_{90}	P_{146}	P_{233}	P_{321}	P_{353}	P_{393}	P_{497}	P_{569}	P_{39}		D ₁₄₆	P_{90}					569	P_{321}	1.

 ℓ_6

 P_{441}

 ℓ_6

 P_{401}

 ℓ_7

 P_{489}

 ℓ_7

 P_{481}

 ℓ_8

 P_{577}

 ℓ_8

 P_{521}

 ℓ_9

 P_{138}

 ℓ_9

 P_{521}

 ℓ_{10}

 P_{401}

 ℓ_{10}

 P_{273}

 ℓ_{11}

 P_{345}

 ℓ_{11}

 P_{217}

 ℓ_{12}

 P_{98}

 ℓ_{12}

 P_{481}

 ℓ_{13}

 P_{489}

 ℓ_{13}

 P_{106}

 ℓ_{14}

 P_{241}

 ℓ_{14}

 P_{369}

 ℓ_{15}

 P_{313}

 P_{441}

 ℓ_{16}

 ℓ_{16}

 P_{193}

Line 36 intersects

Line ℓ_0

Line 37 intersects

Line ℓ_0

in point

in point

 P_{35}

 P_{35}

 ℓ_2

 P_{138}

 ℓ_2

 P_{193}

 ℓ_3

 P_{241}

 ℓ_3

 P_{217}

 ℓ_4

 P_{313}

 ℓ_4

 P_{273}

 ℓ_5

 P_{345}

 ℓ_5

 P_{369}

 ℓ_1

 P_{98}

 P_{106}

Line 38 in	$_{ m tersec}$	${ m ts}$																		
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}		13	ℓ_{14}	ℓ_{15}		ℓ_{16}
in point	P_{35}	P_{114}	P_{185}	P_{225}	P_{265}	P_{361}	P_{449}	P_{473}	P_{529}	P_{20}	$_{55} \mid P_{5}$	29	P_{473}	P_{22}	$_{25} \mid P$	361	P_{114}	P_{18}	$_{5}\mid F$	449
Line 39 in	tersec	ts																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{9}	ℓ_1	10	ℓ_{11}	ℓ_{12}	2 1	13	ℓ_{14}	ℓ_{15}		ℓ_{16}
in point	P_{35}	P_{122}	P_{177}	P_{201}	P_{289}	P_{385}	P_{425}	P_{465}	P_{537}	P_{20}	P_4	65	P_{537}	P_{28}	₃₉ <i>F</i>	425	P_{177}	P_{12}	2 <i>I</i>	385
Line 40 in	tersec	ts					·								·			·	·	
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{ς}	ℓ_1	10	ℓ_{11}	ℓ_{12}	2 1	213	ℓ_{14}	ℓ_{15}		ℓ_{16}
in point	P_{35}	P_{130}	P_{169}		P_{281}	P_{377}	P_{433}		P_{545}	P_{4}	P_2		P_{281}	P_{54}	15 F	169	P_{433}			130
Line 41 in	tersec			1		•	•		1	'	•		·		1				'	
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_1	1 \ell	12	ℓ_{13}	ℓ_1	4	ℓ_{15}	ℓ_{16}	ℓ_1
in point	P_{43}		P_{169}		P_{273}				P_{569}		P_{273}	P_4			P_{169}	P_2			P_{385}	P_{3}
Line 42 in	tersec		'		'		'	1	'	<u> </u>	'						•	'		
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}	3	ℓ_{14}	ℓ_{15}	ℓ_{16}	6
in point	P_{43}	P_{82}	P_{177}	P_{233}	P_{265}	P_{377}	P_{409}	P_{481}	P_{577}	P_{26}	P_{82}		P_{409}	P_{481}	P_{23}	3	P_{177}	P_{377}	P_{57}	77
Line 43 in	tersec	ts																		
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}	3	ℓ_{14}	ℓ_{15}	ℓ_{16}	6
in point	P_{43}	P_{90}	P_{185}	P_{257}	P_{289}	P_{369}	P_{401}	P_{457}	P_{553}	P_{45}		01		P_{289}	P_{55}		P ₃₆₉	P_{185}	P_{25}	57
Line 44 in	tersec	$^{ m ts}$									·									
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}	3	ℓ_{14}	ℓ_{15}	ℓ_{16}	6
in point	P_{43}	P_{98}	P_{193}	P_{249}	P_{281}	P_{361}	P_{393}	P_{465}	P_{561}	P_{39}			P_{281}	P_{98}	P_{36}	1	P_{561}	P_{249}	P_{19}	
Line 45 in	tersec	ts						1					'		'		'			
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{ς}	ℓ_1	10	ℓ_{11}	ℓ_{12}	· · · ·	213	ℓ_{14}	ℓ_{15}	1	ℓ_{16}
in point	P_{43}	P_{106}	P_{138}		P_{305}	P_{353}	P_{449}	P_{505}	P_{537}		P_2	209	P_{537}	P_{35}		106	P_{305}			2449
Line 46 in	tersec	ts							-1		1				l					
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{9}	· ·	10	ℓ_{11}	ℓ_{1}		13	ℓ_{14}	ℓ_{15}		ℓ_{16}
in point	P_{43}	P_{114}	P_{146}		P_{297}	P_{345}	P_{441}	P_{513}	P_{545}				P_{345}	P_{54}		297	P_{114}			513
Line 47 in			1 110			1 010	111				- -		010	, ,	-~		111	11	-	
			1 .		1 .	1 .	1 .		1 .	1 .						•				

L	ine ii iii	CIBCC	0.5															
	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}
j	n point	P_{43}	P_{122}	P_{153}	P_{225}	P_{321}	P_{337}	P_{433}	P_{489}	P_{521}	P_{521}	P_{337}	P_{153}	P_{225}	P_{489}	P_{433}	P_{122}	P_{321}

in point	P_{43}	P_{122}	P_{153}	P_{225}	P_{321}	P_{337}	P_{433}	P_{489}	P_{521}	P_{521}	P_{337}	P_{153}	P_{225}	P_{489}	P_{433}	P_{122}	P_{321}	l
Line 48 in	tersec	ts																
т.	0	0	0	0	0		0	0	0		0	0	0	0	0	0	0	Г

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}
in point	P_{43}	P_{130}	P_{161}	P_{217}	P_{313}	P_{329}	P_{425}	P_{497}	P_{529}	P_{329}	P_{529}	P_{217}	P_{161}	P_{425}	P_{497}	P_{313}	P_{130}
Line 49 in	tersec	ts															

	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}
	in point	P_{51}	P_3	P_{177}	P_{257}	P_{281}	P_{353}	P_{441}	P_{489}	P_{529}	P_3	P_{529}	P_{281}	P_{353}	P_{489}	P_{177}	P_{441}	P_{257}	P_3
]	Line 50 int	ersect	s																

																		ŀ
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
in point	P_{51}	P_{82}	P_{169}	P_{249}	P_{289}	P_{345}	P_{449}	P_{497}	P_{521}	P_{521}	P_{82}	P_{345}	P_{289}	P_{169}	P_{497}	P_{249}	P_{449}	P

Line 51 in	tersec	ts																
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}	Τ.
in point	P_{51}	P_{90}	P_{193}	P_{241}	P_{265}	P_{337}	P_{425}	P_{505}	P_{545}	P_{265}	P_{337}	P_{90}	P_{545}	P_{425}	P_{24}	$_{1} \mid P_{505}$	P_{193}	3 1
Line 52 in	tersec	ts																
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}	
in point	P_{51}	P_{98}	P_{185}	P_{233}	P_{273}	P_{329}	P_{433}	P_{513}	P_{537}	P_{329}	P_{273}	P_{537}	P_{98}	P_{233}	P_{43}	$_{3} \mid P_{185}$	P_{513}	3 1
Line 53 in	tersec	ts																
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_1		16
in point	P_{51}	P_{106}	P_{146}	P_{225}	P_{313}	P_{385}	P_{409}	P_{457}	P_{561}	P_{45}	$_{7} \mid P_{146}$	P_{409}	P_{22}	P_1	$_{06} \mid P$	$P_{561} \mid P_{3}$	$_{13} \mid P_3$	385
Line 54 in	tersec	ts																
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_1		16
in point	P_{51}	P_{114}	P_{138}	P_{217}	P_{321}	P_{377}	P_{417}	P_{465}	P_{553}	P_{138}	P_{465}	P_{21}	P_{41}	P_5	$_{53} \mid P$	$P_{114} \mid P_{3}$	$_{77} \mid P_3$	321
Line 55 in	tersec	ts																
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_1		16
in point	P_{51}	P_{122}	P_{161}	P_{209}	P_{297}	P_{369}	P_{393}	P_{473}	P_{577}	P_{393}	P_{209}	P_{47}	P_{16}	P_2	$_{97} \mid P$	$P_{369} \mid P_{1}$	$_{22} \mid P_{5}$	577
Line 56 in	tersec																	
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}		.3 ℓ	ℓ_{14} ℓ_{1}		16
in point	P_{51}	P_{130}	P_{153}	P_{201}	P_{305}	P_{361}	P_{401}	P_{481}	P_{569}	P_{20}	P_{401}	P_{15}	P_{48}	P_3	$_{61} \mid P$	$P_{305} P_{5}$	$_{69} \mid P_{1}$	130
Line 57 in																		
Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9			ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{59}	P_3	P_{185}	P_{209}	P_{321}	P_{345}	P_{425}	P_{481}	P_{561}	P_3	$P_{209} \mid P$	345	P ₄₈₁	P_{425}	P_{561}	P_{185}	P_{321}	P_3
Line 58 in					ı					I			ı					
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}	
in point	P_{59}	P_{82}	P_{193}	P_{201}	P_{313}	P_{353}	P_{433}	P_{473}	P_{553}	P_{201}	P_{82}	P_{473}	P_{353}	P_{553}	P_{43}	$_{3} \mid P_{313}$	P_{193}	} I
Line 59 in																		
Line	ℓ_0	ℓ_1	$\frac{\ell_2}{R}$	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}	<u> </u>
in point	P_{59}	P_{90}	P_{169}	P_{225}	P_{305}	P_{329}	P_{441}	P_{465}	P_{577}	P_{329}	P_{465}	P_{90}	P_{225}	P_{169}	P_{30}	P_{441}	P_{577}	7 1
Line 60 in																		
Line	ℓ_0	ℓ_1	$\frac{\ell_2}{D}$	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}	
in point Line 61 in	P_{59}	P_{98}	P_{177}	P_{217}	P_{297}	P_{337}	P_{449}	P_{457}	P_{569}	P_{457}	P_{337}	P_{217}	P_{98}	P_{297}	P_{17}	$_{7} \mid P_{569}$	P_{449}) 1
			0	0	0	0	1 0	0	0	1 0	0	0	0	0	1 0		0	
Line in point	ℓ_0 P_{59}	ℓ_1 P_{106}	ℓ_2 P_{153}	$\frac{\ell_3}{P_{241}}$	l_4 P_{289}	ℓ_5	ℓ_6 P_{393}	ℓ_7 P_{513}	ℓ_8 P_{529}	l_9 P_{39}	$\frac{\ell_{10}}{R_{529}}$	ℓ_{11} P_{15}				$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{5}{77}$ $\stackrel{\ell}{P}$	16 513
Line 62 in		•	<u>- 153</u>	<u> 1</u> 241	1 289	1 1 377	1 393	1 513	<u> </u>	± 39;	5 1 529	± 15;	5 1 28	9 11	U6 1	241 13	// 1	113
Line 02 III	er sec	υĎ																

 ℓ_6

 P_{401}

 ℓ_6

 P_{409}

 ℓ_7

 P_{505}

 ℓ_7

 P_{497}

 ℓ_8

 P_{521}

 ℓ_8

 P_{545}

 ℓ_9

 P_{521}

 ℓ_9

 P_{138}

 ℓ_{10}

 P_{401}

 ℓ_{10}

 P_{273}

 ℓ_{11}

 P_{281}

 ℓ_{11}

 P_{409}

 ℓ_{12}

 P_{161}

 ℓ_{12}

 P_{545}

 ℓ_{13}

 P_{233}

 ℓ_{13}

 P_{361}

 ℓ_{14}

 P_{114}

 ℓ_{14}

 P_{497}

 ℓ_{15}

 P_{505}

 P_{122}

 ℓ_{16}

 P_{385}

 ℓ_{16}

 P_{257}

 ℓ_4

 P_{281}

 ℓ_4

 P_{273}

 ℓ_5

 P_{385}

 ℓ_5

 P_{361}

 ℓ_3

 P_{233}

 ℓ_3

 P_{257}

Line

 ${\rm Line}~63~{\rm intersects}$ Line

in point

in point

 ℓ_0

 P_{59}

 ℓ_0

 P_{59}

 ℓ_1

 P_{114}

 P_{122}

 ℓ_2

 P_{161}

 ℓ_2

 P_{138}

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}
in point	P_{59}	P_{130}	P_{146}	P_{249}	P_{265}	P_{369}	P_{417}	P_{489}	P_{537}	P_{265}	P_{146}	P_{537}	P_{417}	P_{489}	P_{369}	P_{249}	P_{130}

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}
in point	P_{67}	P_3	P_{193}	P_{225}	P_{297}	P_{377}	P_{401}	P_{497}	P_{537}	P_3	P_{401}	P_{537}	P_{225}	P_{297}	P_{497}	P_{377}	P_{193}	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
in point	P_{67}	P_{82}	P_{185}	P_{217}	P_{305}	P_{385}	P_{393}	P_{489}	P_{545}	P_{393}	P_{82}	P_{217}	P_{545}	P_{489}	P_{305}	P_{185}	P_{385}	F

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}	ł
in point	P_{67}	P_{90}	P_{177}	P_{209}	P_{313}	P_{361}	P_{417}	P_{513}	P_{521}	P_{521}	P_{209}	P_{90}	P_{417}	P_{361}	P_{177}	P_{313}	P_{513}	F

${\rm Line}~68~{\rm intersects}$

Γ	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
	in point	P_{67}	P_{98}	P_{169}	P_{201}	P_{321}	P_{369}	P_{409}	P_{505}	P_{529}	P_{201}	P_{529}	P_{409}	P_{98}	P_{169}	P_{369}	P_{505}	P_{321}	P

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}
	in point	P_{67}	P_{106}	P_{161}	P_{257}	P_{265}	P_{345}	P_{433}	P_{465}	P_{569}	P_{265}	P_{465}	P_{345}	P_{161}	P_{106}	P_{433}	P_{569}	P_{257}

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}
in point	P_{67}	P_{114}	P_{153}	P_{249}	P_{273}	P_{353}	P_{425}	P_{457}	P_{577}	P_{457}	P_{273}	P_{153}	P_{353}	P_{425}	P_{114}	P_{249}	P_{577}

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}
in point	P_{67}	P_{122}	P_{146}	P_{241}	P_{281}	P_{329}	P_{449}	P_{481}	P_{553}	P_{329}	P_{146}	P_{281}	P_{481}	P_{553}	P_{241}	P_{122}	P_{449}

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}
in point	P_{67}	P_{130}	P_{138}	P_{233}	P_{289}	P_{337}	P_{441}	P_{473}	P_{561}	P_{138}	P_{337}	P_{473}	P_{289}	P_{233}	P_{561}	P_{441}	P_{130}

The surface has 137 points:

The points on the surface are:

$0: P_0 = (1, 0, 0, 0) 1: P_1 = (0, 1, 0, 0)$	9: $P_{51} = (0, 5, 1, 0)$ 10: $P_{59} = (0, 6, 1, 0)$	18: $P_{106} = (0, 4, 0, 1)$ 19: $P_{113} = (7, 4, 0, 1)$
$2: P_2 = (0, 0, 1, 0)$	11: $P_{67} = (0,7,1,0)$	20: $P_{114} = (0, 5, 0, 1)$
$3: P_3 = (0, 0, 0, 1)$	12: $P_{82} = (0,1,0,1)$	21: $P_{120} = (6, 5, 0, 1)$
$4: P_4 = (1, 1, 1, 1)$	13: $P_{83} = (1,1,0,1)$	22: $P_{122} = (0, 6, 0, 1)$
$5: P_{19} = (0, 1, 1, 0)$ $6: P_{27} = (0, 2, 1, 0)$	$14: P_{90} = (0, 2, 0, 1)$ $15: P_{94} = (4, 2, 0, 1)$	$23: P_{125} = (3, 6, 0, 1)$ $24: P_{130} = (0, 7, 0, 1)$
7: $P_{35} = (0, 3, 1, 0)$	16: $P_{98} = (0, 3, 0, 1)$	25: $P_{132} = (2,7,0,1)$
8: $P_{43} = (0, 4, 1, 0)$	17: $P_{103} = (5, 3, 0, 1)$	26: $P_{138} = (0,0,1,1)$

```
101: P_{441} = (0, 6, 5, 1)
27: P_{139} = (1,0,1,1)
                                            64: P_{294} = (5, 3, 3, 1)
28: P_{146} = (0, 1, 1, 1)
                                            65: P_{297} = (0, 4, 3, 1)
                                                                                        102: P_{442} = (1, 6, 5, 1)
29: P_{153} = (0, 2, 1, 1)
                                            66: P_{300} = (3, 4, 3, 1)
                                                                                        103: P_{449} = (0,7,5,1)
                                                                                        104: P_{454} = (5, 7, 5, 1)
30: P_{160} = (7, 2, 1, 1)
                                            67: P_{305} = (0, 5, 3, 1)
31: P_{161} = (0, 3, 1, 1)
                                            68: P_{306} = (1, 5, 3, 1)
                                                                                        105: P_{457} = (0,0,6,1)
32: P_{168} = (7, 3, 1, 1)
                                            69: P_{313} = (0, 6, 3, 1)
                                                                                        106: P_{460} = (3, 0, 6, 1)
33: P_{169} = (0, 4, 1, 1)
                                                                                        107: P_{465} = (0, 1, 6, 1)
                                            70: P_{314} = (1, 6, 3, 1)
                                                                                        108: P_{469} = (4, 1, 6, 1)
34: P_{171} = (2,4,1,1)
                                            71: P_{321} = (0,7,3,1)
35: P_{177} = (0, 5, 1, 1)
                                            72: P_{324} = (3,7,3,1)
                                                                                        109: P_{473} = (0, 2, 6, 1)
                                                                                        110: P_{479} = (6, 2, 6, 1)
36: P_{179} = (2, 5, 1, 1)
                                            73: P_{329} = (0, 0, 4, 1)
37: P_{185} = (0, 6, 1, 1)
                                            74: P_{336} = (7, 0, 4, 1)
                                                                                        111: P_{481} = (0, 3, 6, 1)
                                                                                        112: P_{482} = (1, 3, 6, 1)
38: P_{189} = (4, 6, 1, 1)
                                            75: P_{337} = (0, 1, 4, 1)
39: P_{193} = (0,7,1,1)
                                            76: P_{339} = (2, 1, 4, 1)
                                                                                        113: P_{489} = (0, 4, 6, 1)
                                                                                        114: P_{495} = (6, 4, 6, 1)
40: P_{197} = (4,7,1,1)
                                            77: P_{345} = (0, 2, 4, 1)
41: P_{201} = (0, 0, 2, 1)
                                            78: P_{351} = (6, 2, 4, 1)
                                                                                        115: P_{497} = (0, 5, 6, 1)
42: P_{205} = (4,0,2,1)
                                            79: P_{353} = (0, 3, 4, 1)
                                                                                        116: P_{498} = (1, 5, 6, 1)
                                            80: P_{356} = (3, 3, 4, 1)
                                                                                        117: P_{505} = (0, 6, 6, 1)
43: P_{209} = (0, 1, 2, 1)
44: P_{216} = (7, 1, 2, 1)
                                            81: P_{361} = (0,4,4,1)
                                                                                        118: P_{508} = (3, 6, 6, 1)
                                                                                        119: P_{513} = (0,7,6,1)
45: P_{217} = (0, 2, 2, 1)
                                            82: P_{368} = (7, 4, 4, 1)
46: P_{221} = (4, 2, 2, 1)
                                            83: P_{369} = (0, 5, 4, 1)
                                                                                        120: P_{517} = (4,7,6,1)
47: P_{225} = (0, 3, 2, 1)
                                            84: P_{371} = (2, 5, 4, 1)
                                                                                        121: P_{521} = (0, 0, 7, 1)
48: P_{232} = (7, 3, 2, 1)
                                            85: P_{377} = (0, 6, 4, 1)
                                                                                        122: P_{523} = (2, 0, 7, 1)
49: P_{233} = (0, 4, 2, 1)
                                            86: P_{383} = (6, 6, 4, 1)
                                                                                        123: P_{529} = (0, 1, 7, 1)
50: P_{239} = (6, 4, 2, 1)
                                            87: P_{385} = (0,7,4,1)
                                                                                        124: P_{533} = (4, 1, 7, 1)
                                                                                        125: P_{537} = (0, 2, 7, 1)
51: P_{241} = (0, 5, 2, 1)
                                            88: P_{388} = (3,7,4,1)
52: P_{246} = (5, 5, 2, 1)
                                            89: P_{393} = (0, 0, 5, 1)
                                                                                        126: P_{542} = (5, 2, 7, 1)
53: P_{249} = (0, 6, 2, 1)
                                            90: P_{399} = (6, 0, 5, 1)
                                                                                        127: P_{545} = (0, 3, 7, 1)
54: P_{255} = (6, 6, 2, 1)
                                            91: P_{401} = (0, 1, 5, 1)
                                                                                        128: P_{548} = (3, 3, 7, 1)
                                                                                        129: P_{553} = (0, 4, 7, 1)
55: P_{257} = (0,7,2,1)
                                            92: P_{403} = (2, 1, 5, 1)
56: P_{262} = (5,7,2,1)
                                            93: P_{409} = (0, 2, 5, 1)
                                                                                        130: P_{556} = (3, 4, 7, 1)
57: P_{265} = (0, 0, 3, 1)
                                                                                        131: P_{561} = (0, 5, 7, 1)
                                            94: P_{414} = (5, 2, 5, 1)
58: P_{270} = (5,0,3,1)
                                            95: P_{417} = (0, 3, 5, 1)
                                                                                        132: P_{566} = (5, 5, 7, 1)
59: P_{273} = (0, 1, 3, 1)
                                            96: P_{418} = (1, 3, 5, 1)
                                                                                        133: P_{569} = (0, 6, 7, 1)
                                                                                        134: P_{573} = (4, 6, 7, 1)
60: P_{280} = (7, 1, 3, 1)
                                            97: P_{425} = (0, 4, 5, 1)
61: P_{281} = (0, 2, 3, 1)
                                            98: P_{427} = (2, 4, 5, 1)
                                                                                        135: P_{577} = (0, 7, 7, 1)
                                                                                        136: P_{579} = (2, 7, 7, 1)
62: P_{288} = (7, 2, 3, 1)
                                            99: P_{433} = (0, 5, 5, 1)
63: P_{289} = (0,3,3,1)
                                            100: P_{439} = (6, 5, 5, 1)
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