

Rank-68 over GF(8)

January 15, 2021

The equation

The equation of the surface is :

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

(0, 1, 1, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0)

The point rank of the equation over GF(8) is 8864

General information

Number of lines	81
Number of points	137
Number of singular points	9
Number of Eckardt points	0
Number of double points	0
Number of single points	64
Number of points off lines	0
Number of Hesse planes	0
Number of axes	0
Type of points on lines	9^{81}
Type of lines on points	$17, 9^{72}, 1^{64}$

Singular Points

The surface has 9 singular points:

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

$$1 : P_4 = \mathbf{P}(1, 1, 1, 1) = \mathbf{P}(1, 1, 1, 1)$$

$$2 : P_{20} = \mathbf{P}(1, 1, 1, 0) = \mathbf{P}(1, 1, 1, 0)$$

$$3 : P_{219} = \mathbf{P}(\gamma, \gamma, \gamma, 1) = \mathbf{P}(2, 2, 2, 1)$$

$$4 : P_{292} = \mathbf{P}(\gamma^5, \gamma^5, \gamma^5, 1) = \mathbf{P}(3, 3, 3, 1)$$

$$5 : P_{365} = \mathbf{P}(\gamma^2, \gamma^2, \gamma^2, 1) = \mathbf{P}(4, 4, 4, 1)$$

$$6 : P_{438} = \mathbf{P}(\gamma^3, \gamma^3, \gamma^3, 1) = \mathbf{P}(5, 5, 5, 1)$$

$$7 : P_{511} = \mathbf{P}(\gamma^6, \gamma^6, \gamma^6, 1) = \mathbf{P}(6, 6, 6, 1)$$

$$8 : P_{584} = \mathbf{P}(\gamma^4, \gamma^4, \gamma^4, 1) = \mathbf{P}(7, 7, 7, 1)$$

The 81 Lines

The lines and their Pluecker coordinates are:

$$\begin{aligned}
\ell_0 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \end{bmatrix}_1 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 \end{bmatrix}_1 = \mathbf{Pl}(1, 0, 1, 0, 0, 0)_3 \\
\ell_1 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{72} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{72} = \mathbf{Pl}(0, 0, 0, 0, 1, 0)_{81} \\
\ell_2 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_9 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 1 \end{bmatrix}_9 = \mathbf{Pl}(1, 0, 1, 0, 1, 0)_{97} \\
\ell_3 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{49} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{49} = \mathbf{Pl}(2, 0, 2, 0, 1, 0)_{113} \\
\ell_4 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{33} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{33} = \mathbf{Pl}(3, 0, 3, 0, 1, 0)_{129} \\
\ell_5 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{25} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{25} = \mathbf{Pl}(4, 0, 4, 0, 1, 0)_{145} \\
\ell_6 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{57} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{57} = \mathbf{Pl}(5, 0, 5, 0, 1, 0)_{161} \\
\ell_7 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{17} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{17} = \mathbf{Pl}(6, 0, 6, 0, 1, 0)_{177} \\
\ell_8 &= \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{41} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{41} = \mathbf{Pl}(7, 0, 7, 0, 1, 0)_{193} \\
\ell_9 &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{145} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{145} = \mathbf{Pl}(0, 0, 0, 1, 1, 0)_{201} \\
\ell_{10} &= \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{656} = \begin{bmatrix} 1 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{656} = \mathbf{Pl}(0, 1, 0, 0, 1, 0)_{89} \\
\ell_{11} &= \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4689} = \begin{bmatrix} 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4689} = \mathbf{Pl}(0, 1, 0, 1, 0, 0)_{25} \\
\ell_{12} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{585} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{585} = \mathbf{Pl}(1, 1, 1, 1, 0, 0)_{32} \\
\ell_{13} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{3505} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{3505} = \mathbf{Pl}(1, 1, 2, 1, 0, 0)_{39} \\
\ell_{14} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{2337} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{2337} = \mathbf{Pl}(1, 1, 3, 1, 0, 0)_{46} \\
\ell_{15} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1753} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1753} = \mathbf{Pl}(1, 1, 4, 1, 0, 0)_{53} \\
\ell_{16} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{4089} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{4089} = \mathbf{Pl}(1, 1, 5, 1, 0, 0)_{60} \\
\ell_{17} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1169} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{1169} = \mathbf{Pl}(1, 1, 6, 1, 0, 0)_{67} \\
\ell_{18} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{2921} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 0 \end{bmatrix}_{2921} = \mathbf{Pl}(1, 1, 7, 1, 0, 0)_{74} \\
\ell_{19} &= \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{729} = \begin{bmatrix} 1 & 1 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{729} = \mathbf{Pl}(0, 1, 0, 1, 1, 0)_{209}
\end{aligned}$$

$$\begin{aligned}
\ell_{20} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{593} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{593} = \mathbf{Pl}(1, 1, 1, 1, 1, 0)_{306} \\
\ell_{21} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{3553} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{3553} = \mathbf{Pl}(1, 1, 2, 1, 1, 0)_{313} \\
\ell_{22} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{2369} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{2369} = \mathbf{Pl}(1, 1, 3, 1, 1, 0)_{320} \\
\ell_{23} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{1777} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{1777} = \mathbf{Pl}(1, 1, 4, 1, 1, 0)_{327} \\
\ell_{24} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{4145} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{4145} = \mathbf{Pl}(1, 1, 5, 1, 1, 0)_{334} \\
\ell_{25} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{1185} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{1185} = \mathbf{Pl}(1, 1, 6, 1, 1, 0)_{341} \\
\ell_{26} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{2961} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{2961} = \mathbf{Pl}(1, 1, 7, 1, 1, 0)_{348} \\
\ell_{27} &= \begin{bmatrix} 1 & \gamma^6 & \gamma^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4014} = \begin{bmatrix} 1 & 6 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4014} = \mathbf{Pl}(0, 6, 0, 6, 1, 0)_{289} \\
\ell_{28} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{2377} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{2377} = \mathbf{Pl}(2, 6, 7, 6, 1, 0)_{594} \\
\ell_{29} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{601} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{601} = \mathbf{Pl}(2, 6, 6, 6, 1, 0)_{587} \\
\ell_{30} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{3513} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{3513} = \mathbf{Pl}(2, 6, 1, 6, 1, 0)_{552} \\
\ell_{31} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{1801} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{1801} = \mathbf{Pl}(2, 6, 2, 6, 1, 0)_{559} \\
\ell_{32} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{4113} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{4113} = \mathbf{Pl}(2, 6, 4, 6, 1, 0)_{573} \\
\ell_{33} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{1201} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{1201} = \mathbf{Pl}(2, 6, 3, 6, 1, 0)_{566} \\
\ell_{34} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{2977} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{2977} = \mathbf{Pl}(2, 6, 5, 6, 1, 0)_{580} \\
\ell_{35} &= \begin{bmatrix} 1 & \gamma^2 & \gamma^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2700} = \begin{bmatrix} 1 & 4 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2700} = \mathbf{Pl}(0, 4, 0, 4, 1, 0)_{257} \\
\ell_{36} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{3561} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{3561} = \mathbf{Pl}(3, 4, 5, 4, 1, 0)_{483} \\
\ell_{37} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{609} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{609} = \mathbf{Pl}(3, 4, 4, 4, 1, 0)_{476} \\
\ell_{38} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{2345} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{2345} = \mathbf{Pl}(3, 4, 1, 4, 1, 0)_{455} \\
\ell_{39} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{1793} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{1793} = \mathbf{Pl}(3, 4, 7, 4, 1, 0)_{497} \\
\ell_{40} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{4121} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{4121} = \mathbf{Pl}(3, 4, 3, 4, 1, 0)_{469}
\end{aligned}$$

$$\begin{aligned}
\ell_{41} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{1217} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{1217} = \mathbf{Pl}(3, 4, 2, 4, 1, 0)_{462} \\
\ell_{42} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{2937} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{2937} = \mathbf{Pl}(3, 4, 6, 4, 1, 0)_{490} \\
\ell_{43} &= \begin{bmatrix} 1 & \gamma^5 & \gamma^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2043} = \begin{bmatrix} 1 & 3 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2043} = \mathbf{Pl}(0, 3, 0, 3, 1, 0)_{241} \\
\ell_{44} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{4137} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{4137} = \mathbf{Pl}(4, 3, 2, 3, 1, 0)_{414} \\
\ell_{45} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{617} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{617} = \mathbf{Pl}(4, 3, 3, 3, 1, 0)_{421} \\
\ell_{46} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{3521} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{3521} = \mathbf{Pl}(4, 3, 6, 3, 1, 0)_{442} \\
\ell_{47} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{2393} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{2393} = \mathbf{Pl}(4, 3, 5, 3, 1, 0)_{435} \\
\ell_{48} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1761} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1761} = \mathbf{Pl}(4, 3, 1, 3, 1, 0)_{407} \\
\ell_{49} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{1209} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{1209} = \mathbf{Pl}(4, 3, 7, 3, 1, 0)_{449} \\
\ell_{50} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{2945} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{2945} = \mathbf{Pl}(4, 3, 4, 3, 1, 0)_{428} \\
\ell_{51} &= \begin{bmatrix} 1 & \gamma^4 & \gamma^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4671} = \begin{bmatrix} 1 & 7 & 7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4671} = \mathbf{Pl}(0, 7, 0, 7, 1, 0)_{305} \\
\ell_{52} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{1769} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{1769} = \mathbf{Pl}(5, 7, 6, 7, 1, 0)_{639} \\
\ell_{53} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{625} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{625} = \mathbf{Pl}(5, 7, 7, 7, 1, 0)_{646} \\
\ell_{54} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{3537} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{3537} = \mathbf{Pl}(5, 7, 3, 7, 1, 0)_{618} \\
\ell_{55} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{2361} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{2361} = \mathbf{Pl}(5, 7, 4, 7, 1, 0)_{625} \\
\ell_{56} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{4097} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{4097} = \mathbf{Pl}(5, 7, 1, 7, 1, 0)_{604} \\
\ell_{57} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{1225} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{1225} = \mathbf{Pl}(5, 7, 5, 7, 1, 0)_{632} \\
\ell_{58} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{2969} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{2969} = \mathbf{Pl}(5, 7, 2, 7, 1, 0)_{611} \\
\ell_{59} &= \begin{bmatrix} 1 & \gamma & \gamma & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1386} = \begin{bmatrix} 1 & 2 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1386} = \mathbf{Pl}(0, 2, 0, 2, 1, 0)_{225} \\
\ell_{60} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{2953} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{2953} = \mathbf{Pl}(6, 2, 3, 2, 1, 0)_{374} \\
\ell_{61} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{633} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{633} = \mathbf{Pl}(6, 2, 2, 2, 1, 0)_{367}
\end{aligned}$$

$$\begin{aligned}
\ell_{62} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{3529} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{3529} = \mathbf{Pl}(6, 2, 4, 2, 1, 0)_{381} \\
\ell_{63} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{2353} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{2353} = \mathbf{Pl}(6, 2, 6, 2, 1, 0)_{395} \\
\ell_{64} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{1809} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{1809} = \mathbf{Pl}(6, 2, 5, 2, 1, 0)_{388} \\
\ell_{65} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{4129} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{4129} = \mathbf{Pl}(6, 2, 7, 2, 1, 0)_{402} \\
\ell_{66} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1177} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{1177} = \mathbf{Pl}(6, 2, 1, 2, 1, 0)_{360} \\
\ell_{67} &= \begin{bmatrix} 1 & \gamma^3 & \gamma^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3357} = \begin{bmatrix} 1 & 5 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3357} = \mathbf{Pl}(0, 5, 0, 5, 1, 0)_{273} \\
\ell_{68} &= \begin{bmatrix} 1 & 0 & 0 & \gamma \\ 0 & 1 & 1 & \gamma^5 \end{bmatrix}_{1193} = \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 1 & 3 \end{bmatrix}_{1193} = \mathbf{Pl}(7, 5, 4, 5, 1, 0)_{529} \\
\ell_{69} &= \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & \gamma^4 \end{bmatrix}_{641} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 7 \end{bmatrix}_{641} = \mathbf{Pl}(7, 5, 5, 5, 1, 0)_{536} \\
\ell_{70} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^6 \\ 0 & 1 & 1 & \gamma^3 \end{bmatrix}_{3545} = \begin{bmatrix} 1 & 0 & 0 & 6 \\ 0 & 1 & 1 & 5 \end{bmatrix}_{3545} = \mathbf{Pl}(7, 5, 7, 5, 1, 0)_{550} \\
\ell_{71} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^2 \\ 0 & 1 & 1 & \gamma^6 \end{bmatrix}_{2385} = \begin{bmatrix} 1 & 0 & 0 & 4 \\ 0 & 1 & 1 & 6 \end{bmatrix}_{2385} = \mathbf{Pl}(7, 5, 2, 5, 1, 0)_{515} \\
\ell_{72} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^5 \\ 0 & 1 & 1 & \gamma^2 \end{bmatrix}_{1785} = \begin{bmatrix} 1 & 0 & 0 & 3 \\ 0 & 1 & 1 & 4 \end{bmatrix}_{1785} = \mathbf{Pl}(7, 5, 3, 5, 1, 0)_{522} \\
\ell_{73} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^4 \\ 0 & 1 & 1 & \gamma \end{bmatrix}_{4105} = \begin{bmatrix} 1 & 0 & 0 & 7 \\ 0 & 1 & 1 & 2 \end{bmatrix}_{4105} = \mathbf{Pl}(7, 5, 6, 5, 1, 0)_{543} \\
\ell_{74} &= \begin{bmatrix} 1 & 0 & 0 & \gamma^3 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{2929} = \begin{bmatrix} 1 & 0 & 0 & 5 \\ 0 & 1 & 1 & 1 \end{bmatrix}_{2929} = \mathbf{Pl}(7, 5, 1, 5, 1, 0)_{508} \\
\ell_{75} &= \begin{bmatrix} 1 & \gamma^6 & \gamma^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2262} = \begin{bmatrix} 1 & 6 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2262} = \mathbf{Pl}(0, 3, 0, 6, 1, 0)_{286} \\
\ell_{76} &= \begin{bmatrix} 1 & \gamma^3 & \gamma^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2189} = \begin{bmatrix} 1 & 5 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2189} = \mathbf{Pl}(0, 3, 0, 5, 1, 0)_{271} \\
\ell_{77} &= \begin{bmatrix} 1 & \gamma^5 & \gamma^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3211} = \begin{bmatrix} 1 & 3 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3211} = \mathbf{Pl}(0, 5, 0, 3, 1, 0)_{243} \\
\ell_{78} &= \begin{bmatrix} 1 & \gamma^6 & \gamma^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3430} = \begin{bmatrix} 1 & 6 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3430} = \mathbf{Pl}(0, 5, 0, 6, 1, 0)_{288} \\
\ell_{79} &= \begin{bmatrix} 1 & \gamma^5 & \gamma^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3795} = \begin{bmatrix} 1 & 3 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3795} = \mathbf{Pl}(0, 6, 0, 3, 1, 0)_{244} \\
\ell_{80} &= \begin{bmatrix} 1 & \gamma^3 & \gamma^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3941} = \begin{bmatrix} 1 & 5 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3941} = \mathbf{Pl}(0, 6, 0, 5, 1, 0)_{274}
\end{aligned}$$

Rank of lines: (1, 72, 9, 49, 33, 25, 57, 17, 41, 145, 656, 4689, 585, 3505, 2337, 1753, 4089, 1169, 2921, 729, 593, 3553, 2369, 1777, 4145, 1185, 2961, 4014, 2377, 601, 3513, 1801, 4113, 1201, 2977, 2700, 3561, 609, 2345, 1793, 4121, 1217, 2937, 2043, 4137, 617, 3521, 2393, 1761, 1209, ...3430, 3795, 3941)

Rank of points on Klein quadric: (3, 81, 97, 113, 129, 145, 161, 177, 193, 201, 89, 25, 32, 39, 46, 53, 60, 67, 74, 209, 306, 313, 320, 327, 334, 341, 348, 289, 594, 587, 552, 559, 573, 566, 580, 257, 483, 476, 455, 497, 469, 462, 490, 241, 414, 421, 442, 435, 407, 449, ...288, 244, 274)

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 64 single points:

The single points on the surface are:

- | | |
|--|--|
| 0 : $P_5 = (1, 1, 0, 0)$ lies on line ℓ_9 | 33 : $P_{306} = (1, 5, 3, 1)$ lies on line ℓ_{76} |
| 1 : $P_{12} = (1, 0, 1, 0)$ lies on line ℓ_{10} | 34 : $P_{314} = (1, 6, 3, 1)$ lies on line ℓ_{75} |
| 2 : $P_{31} = (4, 2, 1, 0)$ lies on line ℓ_{75} | 35 : $P_{327} = (6, 7, 3, 1)$ lies on line ℓ_{79} |
| 3 : $P_{39} = (4, 3, 1, 0)$ lies on line ℓ_{76} | 36 : $P_{333} = (4, 0, 4, 1)$ lies on line ℓ_{10} |
| 4 : $P_{50} = (7, 4, 1, 0)$ lies on line ℓ_{77} | 37 : $P_{344} = (7, 1, 4, 1)$ lies on line ℓ_{76} |
| 5 : $P_{58} = (7, 5, 1, 0)$ lies on line ℓ_{78} | 38 : $P_{350} = (5, 2, 4, 1)$ lies on line ℓ_{79} |
| 6 : $P_{61} = (2, 6, 1, 0)$ lies on line ℓ_{79} | 39 : $P_{359} = (6, 3, 4, 1)$ lies on line ℓ_{78} |
| 7 : $P_{69} = (2, 7, 1, 0)$ lies on line ℓ_{80} | 40 : $P_{376} = (7, 5, 4, 1)$ lies on line ℓ_{75} |
| 8 : $P_{83} = (1, 1, 0, 1)$ lies on line ℓ_9 | 41 : $P_{382} = (5, 6, 4, 1)$ lies on line ℓ_{80} |
| 9 : $P_{92} = (2, 2, 0, 1)$ lies on line ℓ_9 | 42 : $P_{391} = (6, 7, 4, 1)$ lies on line ℓ_{77} |
| 10 : $P_{101} = (3, 3, 0, 1)$ lies on line ℓ_9 | 43 : $P_{398} = (5, 0, 5, 1)$ lies on line ℓ_{10} |
| 11 : $P_{110} = (4, 4, 0, 1)$ lies on line ℓ_9 | 44 : $P_{408} = (7, 1, 5, 1)$ lies on line ℓ_{80} |
| 12 : $P_{119} = (5, 5, 0, 1)$ lies on line ℓ_9 | 45 : $P_{412} = (3, 2, 5, 1)$ lies on line ℓ_{76} |
| 13 : $P_{128} = (6, 6, 0, 1)$ lies on line ℓ_9 | 46 : $P_{418} = (1, 3, 5, 1)$ lies on line ℓ_{77} |
| 14 : $P_{137} = (7, 7, 0, 1)$ lies on line ℓ_9 | 47 : $P_{432} = (7, 4, 5, 1)$ lies on line ℓ_{79} |
| 15 : $P_{139} = (1, 0, 1, 1)$ lies on line ℓ_{10} | 48 : $P_{442} = (1, 6, 5, 1)$ lies on line ℓ_{78} |
| 16 : $P_{157} = (4, 2, 1, 1)$ lies on line ℓ_{75} | 49 : $P_{452} = (3, 7, 5, 1)$ lies on line ℓ_{75} |
| 17 : $P_{165} = (4, 3, 1, 1)$ lies on line ℓ_{76} | 50 : $P_{463} = (6, 0, 6, 1)$ lies on line ℓ_{10} |
| 18 : $P_{176} = (7, 4, 1, 1)$ lies on line ℓ_{77} | 51 : $P_{467} = (2, 1, 6, 1)$ lies on line ℓ_{75} |
| 19 : $P_{184} = (7, 5, 1, 1)$ lies on line ℓ_{78} | 52 : $P_{478} = (5, 2, 6, 1)$ lies on line ℓ_{77} |
| 20 : $P_{187} = (2, 6, 1, 1)$ lies on line ℓ_{79} | 53 : $P_{482} = (1, 3, 6, 1)$ lies on line ℓ_{79} |
| 21 : $P_{195} = (2, 7, 1, 1)$ lies on line ℓ_{80} | 54 : $P_{494} = (5, 4, 6, 1)$ lies on line ℓ_{78} |
| 22 : $P_{203} = (2, 0, 2, 1)$ lies on line ℓ_{10} | 55 : $P_{498} = (1, 5, 6, 1)$ lies on line ℓ_{80} |
| 23 : $P_{213} = (4, 1, 2, 1)$ lies on line ℓ_{79} | 56 : $P_{515} = (2, 7, 6, 1)$ lies on line ℓ_{76} |
| 24 : $P_{229} = (4, 3, 2, 1)$ lies on line ℓ_{80} | 57 : $P_{528} = (7, 0, 7, 1)$ lies on line ℓ_{10} |
| 25 : $P_{238} = (5, 4, 2, 1)$ lies on line ℓ_{75} | 58 : $P_{531} = (2, 1, 7, 1)$ lies on line ℓ_{78} |
| 26 : $P_{244} = (3, 5, 2, 1)$ lies on line ℓ_{77} | 59 : $P_{540} = (3, 2, 7, 1)$ lies on line ℓ_{80} |
| 27 : $P_{254} = (5, 6, 2, 1)$ lies on line ℓ_{76} | 60 : $P_{551} = (6, 3, 7, 1)$ lies on line ℓ_{75} |
| 28 : $P_{260} = (3, 7, 2, 1)$ lies on line ℓ_{78} | 61 : $P_{559} = (6, 4, 7, 1)$ lies on line ℓ_{76} |
| 29 : $P_{268} = (3, 0, 3, 1)$ lies on line ℓ_{10} | 62 : $P_{564} = (3, 5, 7, 1)$ lies on line ℓ_{79} |
| 30 : $P_{277} = (4, 1, 3, 1)$ lies on line ℓ_{77} | 63 : $P_{571} = (2, 6, 7, 1)$ lies on line ℓ_{77} |
| 31 : $P_{285} = (4, 2, 3, 1)$ lies on line ℓ_{78} | |
| 32 : $P_{303} = (6, 4, 3, 1)$ lies on line ℓ_{80} | |

The single points on the surface are:

Points on surface but on no line

The surface has 0 points not on any line:

The points on the surface but not on lines are:

Line Intersection Graph

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47		
0	0	1	1	1	1	1	1	1	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	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	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	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	1	1	1	1	1
3	1	1	1	0	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	1	1	1	1	1	1	1
4	1	1	1	1	0	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	1	1	1	1	1	1
5	1	1	1	1	1	0	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	1	1	1	1	1
6	1	1	1	1	1	1	0	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	1	1	1	1
7	1	1	1	1	1	1	0	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	1	1	1
8	1	1	1	1	1	1	1	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	1	1	1	1	1	1
9	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	0	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	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	0	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	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	0	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	1	1	1	1	1	1
15	1	1	1	1	1	1	1	0	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	1	1	1	1	1
16	1	1	1	1	1	1	1	0	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	1	1	1	1
17	1	1	1	1	1	1	1	0	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	1	1	1
18	1	1	1	1	1	1	1	0	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	1	1	1
19	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	1	1
20	1	1	1	1	1	1	1	0	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	1
21	1	1	1	1	1	1	1	0	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	1
22	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1</																			

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_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{20}	P_{20}	P_{20}	P_{20}	P_{20}

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}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_3	P_3	P_3	P_{75}	P_{76}	P_{77}	P_{78}	P_{79}	P_{80}	P_{81}	P_3	P_{75}	P_{76}	P_{76}	P_{76}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{146}	P_4	P_{147}	P_{148}	P_{149}	P_{150}	P_{151}	P_{152}	P_4	P_{146}	P_{148}	P_{148}	P_{148}

Line 3 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{217}	P_{218}	P_{219}	P_{220}	P_{221}	P_{222}	P_{223}	P_{224}	P_{219}	P_{220}	P_{217}	P_{217}	P_{217}

Line 4 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{289}	P_{290}	P_{291}	P_{292}	P_{293}	P_{294}	P_{295}	P_{296}	P_{292}	P_{291}	P_{290}	P_{290}	P_{290}

Line 5 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{361}	P_{362}	P_{363}	P_{364}	P_{365}	P_{366}	P_{367}	P_{368}	P_{365}	P_{366}	P_{367}	P_{367}	P_{367}

Line 6 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{433}	P_{434}	P_{435}	P_{436}	P_{437}	P_{438}	P_{439}	P_{440}	P_{438}	P_{437}	P_{440}	P_{440}	P_{440}

Line 7 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{505}	P_{506}	P_{507}	P_{508}	P_{509}	P_{510}	P_{511}	P_{512}	P_{511}	P_{512}	P_{509}	P_{509}	P_{509}

Line 8 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}	ℓ_{23}
in point	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_0	P_{577}	P_{578}	P_{579}	P_{580}	P_{581}	P_{582}	P_{583}	P_{584}	P_{584}	P_{583}	P_{582}	P_{582}	P_{582}

Line 9 intersects

Line	ℓ_1	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{76}	ℓ_{77}	ℓ_{78}	ℓ_{79}	ℓ_{80}
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

Line 10 intersects

Line	ℓ_1	ℓ_9	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{76}	ℓ_{77}	ℓ_{78}	ℓ_{79}	ℓ_{80}
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

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}	ℓ_{23}
in point	P_{19}	P_3	P_{146}	P_{217}	P_{289}	P_{361}	P_{433}	P_{505}	P_{577}	P_3	P_3	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}

Line 12 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}
in point	P_{19}	P_{75}	P_4	P_{218}	P_{290}	P_{362}	P_{434}	P_{506}	P_{578}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_4	P_{75}	P_{290}

Line 13 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	
in point	P_{19}	P_{76}	P_{147}	P_{219}	P_{291}	P_{363}	P_{435}	P_{507}	P_{579}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{219}	P_{291}	

Line 14 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	
in point	P_{19}	P_{77}	P_{148}	P_{220}	P_{292}	P_{364}	P_{436}	P_{508}	P_{580}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{292}	P_{220}	

Line 15 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	
in point	P_{19}	P_{78}	P_{149}	P_{221}	P_{293}	P_{365}	P_{437}	P_{509}	P_{581}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{365}	P_{437}	

Line 16 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	
in point	P_{19}	P_{79}	P_{150}	P_{222}	P_{294}	P_{366}	P_{438}	P_{510}	P_{582}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{438}	P_{366}	

Line 17 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{18}	ℓ_{19}	ℓ_{20}	
in point	P_{19}	P_{80}	P_{151}	P_{223}	P_{295}	P_{367}	P_{439}	P_{511}	P_{583}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{511}	P_{583}	

Line 18 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}	ℓ_{20}	
in point	P_{19}	P_{81}	P_{152}	P_{224}	P_{296}	P_{368}	P_{440}	P_{512}	P_{584}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{19}	P_{584}	P_{512}	

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}
in point	P_{20}	P_3	P_4	P_{219}	P_{292}	P_{365}	P_{438}	P_{511}	P_{584}	P_3	P_3	P_3	P_4	P_{219}	P_{292}	P_{365}	P_{438}	P_{511}	P_{584}

Line 20 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{20}	P_{75}	P_{146}	P_{220}	P_{291}	P_{366}	P_{437}	P_{512}	P_{583}	P_{146}	P_{75}	P_{291}	P_{220}	P_{437}	P_{366}	P_{583}	P_{512}	P_{146}	P_{75}

Line 21 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{20}	P_{76}	P_{148}	P_{217}	P_{290}	P_{367}	P_{440}	P_{509}	P_{582}	P_{217}	P_{290}	P_{76}	P_{148}	P_{509}	P_{582}	P_{367}	P_{440}	P_{509}	P_{582}

Line 22 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{20}	P_{77}	P_{147}	P_{218}	P_{289}	P_{368}	P_{439}	P_{510}	P_{581}	P_{289}	P_{218}	P_{147}	P_{77}	P_{581}	P_{510}	P_{439}	P_{368}	P_{510}	P_{289}

Line 23 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{20}	P_{78}	P_{150}	P_{223}	P_{296}	P_{361}	P_{434}	P_{507}	P_{580}	P_{361}	P_{434}	P_{507}	P_{580}	P_{78}	P_{150}	P_{223}	P_{296}	P_{361}	P_{434}

Line 24 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_{20}	P_{79}	P_{149}	P_{224}	P_{295}	P_{362}	P_{433}	P_{508}	P_{579}	P_{433}	P_{362}	P_{579}	P_{508}	P_{149}	P_{79}	P_{295}	P_{224}	P_{149}	P_{79}

Line 25 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{20}	P_{80}	P_{152}	P_{221}	P_{294}	P_{363}	P_{436}	P_{505}	P_{578}	P_{505}	P_{578}	P_{363}	P_{436}	P_{221}	P_{294}	P_{80}	P_{152}	P_{221}

Line 26 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{20}	P_{81}	P_{151}	P_{222}	P_{293}	P_{364}	P_{435}	P_{506}	P_{577}	P_{577}	P_{506}	P_{435}	P_{364}	P_{293}	P_{222}	P_{151}	P_{81}	P_{222}

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}
in point	P_{21}	P_3	P_{147}	P_{221}	P_{295}	P_{366}	P_{440}	P_{506}	P_{580}	P_3	P_3	P_3	P_{506}	P_{147}	P_{580}	P_{221}	P_{366}	P_{295}

Line 28 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{77}	P_4	P_{224}	P_{294}	P_{367}	P_{437}	P_{507}	P_{577}	P_{577}	P_4	P_{507}	P_{77}	P_{437}	P_{294}	P_{367}	P_{224}	P_4

Line 29 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{75}	P_{148}	P_{222}	P_{296}	P_{365}	P_{439}	P_{505}	P_{579}	P_{505}	P_{75}	P_{579}	P_{148}	P_{365}	P_{222}	P_{439}	P_{296}	P_{222}

Line 30 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{76}	P_{146}	P_{223}	P_{293}	P_{368}	P_{438}	P_{508}	P_{578}	P_{146}	P_{578}	P_{76}	P_{508}	P_{293}	P_{438}	P_{223}	P_{368}	P_{223}

Line 31 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{78}	P_{151}	P_{217}	P_{291}	P_{362}	P_{436}	P_{510}	P_{584}	P_{217}	P_{362}	P_{291}	P_{436}	P_{78}	P_{510}	P_{151}	P_{584}	P_{217}

Line 32 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{79}	P_{152}	P_{218}	P_{292}	P_{361}	P_{435}	P_{509}	P_{583}	P_{361}	P_{218}	P_{435}	P_{292}	P_{509}	P_{79}	P_{583}	P_{152}	P_{218}

Line 33 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{80}	P_{149}	P_{219}	P_{289}	P_{364}	P_{434}	P_{512}	P_{582}	P_{289}	P_{434}	P_{219}	P_{364}	P_{149}	P_{582}	P_{80}	P_{512}	P_{219}

Line 34 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{21}	P_{81}	P_{150}	P_{220}	P_{290}	P_{363}	P_{433}	P_{511}	P_{581}	P_{433}	P_{290}	P_{363}	P_{220}	P_{581}	P_{150}	P_{511}	P_{81}	P_{220}

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}
in point	P_{22}	P_3	P_{148}	P_{223}	P_{294}	P_{362}	P_{435}	P_{512}	P_{581}	P_3	P_3	P_3	P_{362}	P_{435}	P_{148}	P_{581}	P_{294}	P_{223}

Line 36 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{76}	P_4	P_{221}	P_{296}	P_{364}	P_{433}	P_{510}	P_{583}	P_{433}	P_4	P_{76}	P_{364}	P_{221}	P_{510}	P_{583}	P_{296}	P_4

Line 37 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{75}	P_{147}	P_{224}	P_{293}	P_{361}	P_{436}	P_{511}	P_{582}	P_{361}	P_{75}	P_{147}	P_{436}	P_{293}	P_{582}	P_{511}	P_{224}	P_{293}

Line 38 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{77}	P_{146}	P_{222}	P_{295}	P_{363}	P_{434}	P_{509}	P_{584}	P_{146}	P_{434}	P_{363}	P_{77}	P_{509}	P_{222}	P_{295}	P_{584}	P_{146}

Line 39 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{78}	P_{152}	P_{219}	P_{290}	P_{366}	P_{439}	P_{508}	P_{577}	P_{577}	P_{290}	P_{219}	P_{508}	P_{78}	P_{366}	P_{439}	P_{152}	P_{219}

Line 40 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{79}	P_{151}	P_{220}	P_{289}	P_{365}	P_{440}	P_{507}	P_{578}	P_{289}	P_{578}	P_{507}	P_{220}	P_{365}	P_{79}	P_{151}	P_{440}	P_{289}

Line 41 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{80}	P_{150}	P_{217}	P_{292}	P_{368}	P_{437}	P_{506}	P_{579}	P_{217}	P_{506}	P_{579}	P_{292}	P_{437}	P_{150}	P_{80}	P_{368}	P_{217}

Line 42 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{22}	P_{81}	P_{149}	P_{218}	P_{291}	P_{367}	P_{438}	P_{505}	P_{580}	P_{505}	P_{218}	P_{291}	P_{580}	P_{149}	P_{438}	P_{367}	P_{81}	P_{218}

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}
in point	P_{23}	P_3	P_{149}	P_{222}	P_{290}	P_{368}	P_{436}	P_{507}	P_{583}	P_3	P_3	P_3	P_{290}	P_{507}	P_{436}	P_{149}	P_{222}	P_{583}

Line 44 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{79}	P_4	P_{217}	P_{293}	P_{363}	P_{439}	P_{512}	P_{580}	P_{217}	P_4	P_{363}	P_{580}	P_{293}	P_{79}	P_{439}	P_{512}	P_4

Line 45 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{75}	P_{150}	P_{221}	P_{289}	P_{367}	P_{435}	P_{508}	P_{584}	P_{289}	P_{75}	P_{435}	P_{508}	P_{221}	P_{150}	P_{367}	P_{584}	P_{289}

Line 46 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{76}	P_{151}	P_{224}	P_{292}	P_{366}	P_{434}	P_{505}	P_{581}	P_{505}	P_{434}	P_{76}	P_{292}	P_{581}	P_{366}	P_{151}	P_{224}	P_{292}

Line 47 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{77}	P_{152}	P_{223}	P_{291}	P_{365}	P_{433}	P_{506}	P_{582}	P_{433}	P_{506}	P_{291}	P_{77}	P_{365}	P_{582}	P_{223}	P_{152}	P_{291}

Line 48 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{78}	P_{146}	P_{218}	P_{294}	P_{364}	P_{440}	P_{511}	P_{579}	P_{146}	P_{218}	P_{579}	P_{364}	P_{78}	P_{294}	P_{511}	P_{440}	P_{294}

Line 49 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{80}	P_{147}	P_{220}	P_{296}	P_{362}	P_{438}	P_{509}	P_{577}	P_{577}	P_{362}	P_{147}	P_{220}	P_{509}	P_{438}	P_{80}	P_{296}	P_{296}

Line 50 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{23}	P_{81}	P_{148}	P_{219}	P_{295}	P_{361}	P_{437}	P_{510}	P_{578}	P_{361}	P_{578}	P_{219}	P_{148}	P_{437}	P_{510}	P_{295}	P_{81}	P_{219}

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}	
in point	P_{24}	P_3	P_{150}	P_{224}	P_{291}	P_{364}	P_{439}	P_{509}	P_{578}	P_3	P_3	P_3	P_{578}	P_{291}	P_{364}	P_{509}	P_{150}	P_{439}	

Line 52 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{78}	P_4	P_{220}	P_{295}	P_{368}	P_{435}	P_{505}	P_{582}	P_{505}	P_4	P_{435}	P_{220}	P_{78}	P_{582}	P_{295}	P_{368}	P_4	

Line 53 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{75}	P_{149}	P_{223}	P_{292}	P_{363}	P_{440}	P_{510}	P_{577}	P_{577}	P_{75}	P_{363}	P_{292}	P_{149}	P_{510}	P_{223}	P_{440}	P_{577}	

Line 54 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{76}	P_{152}	P_{222}	P_{289}	P_{362}	P_{437}	P_{511}	P_{580}	P_{289}	P_{362}	P_{76}	P_{580}	P_{437}	P_{222}	P_{511}	P_{152}	P_{222}	

Line 55 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{77}	P_{151}	P_{221}	P_{290}	P_{361}	P_{438}	P_{512}	P_{579}	P_{361}	P_{290}	P_{579}	P_{77}	P_{221}	P_{438}	P_{151}	P_{512}	P_{579}	

Line 56 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{79}	P_{146}	P_{219}	P_{296}	P_{367}	P_{436}	P_{506}	P_{581}	P_{146}	P_{506}	P_{219}	P_{436}	P_{581}	P_{79}	P_{367}	P_{296}	P_{506}	

Line 57 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{80}	P_{148}	P_{218}	P_{293}	P_{366}	P_{433}	P_{507}	P_{584}	P_{433}	P_{218}	P_{507}	P_{148}	P_{293}	P_{366}	P_{80}	P_{584}	P_{507}	

Line 58 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{24}	P_{81}	P_{147}	P_{217}	P_{294}	P_{365}	P_{434}	P_{508}	P_{583}	P_{217}	P_{434}	P_{147}	P_{508}	P_{365}	P_{294}	P_{583}	P_{81}	P_{217}	

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}
in point	P_{25}	P_3	P_{151}	P_{218}	P_{296}	P_{363}	P_{437}	P_{508}	P_{582}	P_3	P_3	P_3	P_{218}	P_{363}	P_{508}	P_{437}	P_{582}	P_{151}	P_{218}	P_{296}

Line 60 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{25}	P_{81}	P_4	P_{223}	P_{289}	P_{366}	P_{436}	P_{509}	P_{579}	P_{289}	P_4	P_{579}	P_{436}	P_{509}	P_{366}	P_{223}	P_{81}	P_4	

Line 61 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{25}	P_{75}	P_{152}	P_{217}	P_{295}	P_{364}	P_{438}	P_{507}	P_{581}	P_{217}	P_{75}	P_{507}	P_{364}	P_{581}	P_{438}	P_{295}	P_{152}	P_{217}	

Line 62 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{25}	P_{76}	P_{149}	P_{220}	P_{294}	P_{361}	P_{439}	P_{506}	P_{584}	P_{361}	P_{506}	P_{76}	P_{220}	P_{149}	P_{294}	P_{439}	P_{584}	P_{506}	

Line 63 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	
in point	P_{25}	P_{77}	P_{150}	P_{219}	P_{293}	P_{362}	P_{440}	P_{505}	P_{583}	P_{505}	P_{362}	P_{219}	P_{77}	P_{293}	P_{150}	P_{583}	P_{440}	P_{505}	

Line 64 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{25}	P_{78}	P_{147}	P_{222}	P_{292}	P_{367}	P_{433}	P_{512}	P_{578}	P_{433}	P_{578}	P_{147}	P_{292}	P_{78}	P_{222}	P_{367}	P_{512}	P_{578}

Line 65 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{25}	P_{79}	P_{148}	P_{221}	P_{291}	P_{368}	P_{434}	P_{511}	P_{577}	P_{577}	P_{434}	P_{291}	P_{148}	P_{221}	P_{79}	P_{511}	P_{368}	P_{577}

Line 66 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{25}	P_{80}	P_{146}	P_{224}	P_{290}	P_{365}	P_{435}	P_{510}	P_{580}	P_{146}	P_{290}	P_{435}	P_{580}	P_{365}	P_{510}	P_{80}	P_{224}	P_{580}

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}
in point	P_{26}	P_3	P_{152}	P_{220}	P_{293}	P_{367}	P_{434}	P_{510}	P_{579}	P_3	P_3	P_3	P_{434}	P_{579}	P_{220}	P_{293}	P_{510}	P_{367}

Line 68 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{80}	P_4	P_{222}	P_{291}	P_{361}	P_{440}	P_{508}	P_{581}	P_{361}	P_4	P_{291}	P_{508}	P_{581}	P_{222}	P_{80}	P_{440}	P_4

Line 69 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{75}	P_{151}	P_{219}	P_{294}	P_{368}	P_{433}	P_{509}	P_{580}	P_{433}	P_{75}	P_{219}	P_{580}	P_{509}	P_{294}	P_{151}	P_{368}	P_{580}

Line 70 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{76}	P_{150}	P_{218}	P_{295}	P_{365}	P_{436}	P_{512}	P_{577}	P_{577}	P_{218}	P_{76}	P_{436}	P_{365}	P_{150}	P_{295}	P_{512}	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_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{77}	P_{149}	P_{217}	P_{296}	P_{366}	P_{435}	P_{511}	P_{578}	P_{217}	P_{578}	P_{435}	P_{77}	P_{149}	P_{366}	P_{511}	P_{296}	P_{578}

Line 72 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{78}	P_{148}	P_{224}	P_{289}	P_{363}	P_{438}	P_{506}	P_{583}	P_{289}	P_{506}	P_{363}	P_{148}	P_{78}	P_{438}	P_{583}	P_{224}	P_{583}

Line 73 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{79}	P_{147}	P_{223}	P_{290}	P_{364}	P_{437}	P_{505}	P_{584}	P_{505}	P_{290}	P_{147}	P_{364}	P_{437}	P_{79}	P_{223}	P_{584}	P_{584}

Line 74 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_{26}	P_{81}	P_{146}	P_{221}	P_{292}	P_{362}	P_{439}	P_{507}	P_{582}	P_{146}	P_{362}	P_{507}	P_{292}	P_{221}	P_{582}	P_{439}	P_{81}	P_{582}

Line 75 intersects

Line	ℓ_1	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{76}	ℓ_{77}	ℓ_{78}	ℓ_{79}	ℓ_{80}
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

Line 76 intersects

Line	ℓ_1	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{77}	ℓ_{78}	ℓ_{79}	ℓ_{80}
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

Line 77 intersects

Line	ℓ_1	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{76}	ℓ_{78}	ℓ_{79}	ℓ_{80}
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

Line 78 intersects

Line	ℓ_1	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{76}	ℓ_{77}	ℓ_{79}	ℓ_{80}
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

Line 79 intersects

Line	ℓ_1	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{76}	ℓ_{77}	ℓ_{78}	ℓ_{80}
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

Line 80 intersects

Line	ℓ_1	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{19}	ℓ_{27}	ℓ_{35}	ℓ_{43}	ℓ_{51}	ℓ_{59}	ℓ_{67}	ℓ_{75}	ℓ_{76}	ℓ_{77}	ℓ_{78}	ℓ_{79}
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

The surface has 137 points:

The points on the surface are:

0 : $P_0 = (1, 0, 0, 0)$	32 : $P_{137} = (7, 7, 0, 1)$	64 : $P_{285} = (4, 2, 3, 1)$
1 : $P_3 = (0, 0, 0, 1)$	33 : $P_{139} = (1, 0, 1, 1)$	65 : $P_{289} = (0, 3, 3, 1)$
2 : $P_4 = (1, 1, 1, 1)$	34 : $P_{146} = (0, 1, 1, 1)$	66 : $P_{290} = (1, 3, 3, 1)$
3 : $P_5 = (1, 1, 0, 0)$	35 : $P_{147} = (2, 1, 1, 1)$	67 : $P_{291} = (2, 3, 3, 1)$
4 : $P_{12} = (1, 0, 1, 0)$	36 : $P_{148} = (3, 1, 1, 1)$	68 : $P_{292} = (3, 3, 3, 1)$
5 : $P_{19} = (0, 1, 1, 0)$	37 : $P_{149} = (4, 1, 1, 1)$	69 : $P_{293} = (4, 3, 3, 1)$
6 : $P_{20} = (1, 1, 1, 0)$	38 : $P_{150} = (5, 1, 1, 1)$	70 : $P_{294} = (5, 3, 3, 1)$
7 : $P_{21} = (2, 1, 1, 0)$	39 : $P_{151} = (6, 1, 1, 1)$	71 : $P_{295} = (6, 3, 3, 1)$
8 : $P_{22} = (3, 1, 1, 0)$	40 : $P_{152} = (7, 1, 1, 1)$	72 : $P_{296} = (7, 3, 3, 1)$
9 : $P_{23} = (4, 1, 1, 0)$	41 : $P_{157} = (4, 2, 1, 1)$	73 : $P_{303} = (6, 4, 3, 1)$
10 : $P_{24} = (5, 1, 1, 0)$	42 : $P_{165} = (4, 3, 1, 1)$	74 : $P_{306} = (1, 5, 3, 1)$
11 : $P_{25} = (6, 1, 1, 0)$	43 : $P_{176} = (7, 4, 1, 1)$	75 : $P_{314} = (1, 6, 3, 1)$
12 : $P_{26} = (7, 1, 1, 0)$	44 : $P_{184} = (7, 5, 1, 1)$	76 : $P_{327} = (6, 7, 3, 1)$
13 : $P_{31} = (4, 2, 1, 0)$	45 : $P_{187} = (2, 6, 1, 1)$	77 : $P_{333} = (4, 0, 4, 1)$
14 : $P_{39} = (4, 3, 1, 0)$	46 : $P_{195} = (2, 7, 1, 1)$	78 : $P_{344} = (7, 1, 4, 1)$
15 : $P_{50} = (7, 4, 1, 0)$	47 : $P_{203} = (2, 0, 2, 1)$	79 : $P_{350} = (5, 2, 4, 1)$
16 : $P_{58} = (7, 5, 1, 0)$	48 : $P_{213} = (4, 1, 2, 1)$	80 : $P_{359} = (6, 3, 4, 1)$
17 : $P_{61} = (2, 6, 1, 0)$	49 : $P_{217} = (0, 2, 2, 1)$	81 : $P_{361} = (0, 4, 4, 1)$
18 : $P_{69} = (2, 7, 1, 0)$	50 : $P_{218} = (1, 2, 2, 1)$	82 : $P_{362} = (1, 4, 4, 1)$
19 : $P_{75} = (1, 0, 0, 1)$	51 : $P_{219} = (2, 2, 2, 1)$	83 : $P_{363} = (2, 4, 4, 1)$
20 : $P_{76} = (2, 0, 0, 1)$	52 : $P_{220} = (3, 2, 2, 1)$	84 : $P_{364} = (3, 4, 4, 1)$
21 : $P_{77} = (3, 0, 0, 1)$	53 : $P_{221} = (4, 2, 2, 1)$	85 : $P_{365} = (4, 4, 4, 1)$
22 : $P_{78} = (4, 0, 0, 1)$	54 : $P_{222} = (5, 2, 2, 1)$	86 : $P_{366} = (5, 4, 4, 1)$
23 : $P_{79} = (5, 0, 0, 1)$	55 : $P_{223} = (6, 2, 2, 1)$	87 : $P_{367} = (6, 4, 4, 1)$
24 : $P_{80} = (6, 0, 0, 1)$	56 : $P_{224} = (7, 2, 2, 1)$	88 : $P_{368} = (7, 4, 4, 1)$
25 : $P_{81} = (7, 0, 0, 1)$	57 : $P_{229} = (4, 3, 2, 1)$	89 : $P_{376} = (7, 5, 4, 1)$
26 : $P_{83} = (1, 1, 0, 1)$	58 : $P_{238} = (5, 4, 2, 1)$	90 : $P_{382} = (5, 6, 4, 1)$
27 : $P_{92} = (2, 2, 0, 1)$	59 : $P_{244} = (3, 5, 2, 1)$	91 : $P_{391} = (6, 7, 4, 1)$
28 : $P_{101} = (3, 3, 0, 1)$	60 : $P_{254} = (5, 6, 2, 1)$	92 : $P_{398} = (5, 0, 5, 1)$
29 : $P_{110} = (4, 4, 0, 1)$	61 : $P_{260} = (3, 7, 2, 1)$	93 : $P_{408} = (7, 1, 5, 1)$
30 : $P_{119} = (5, 5, 0, 1)$	62 : $P_{268} = (3, 0, 3, 1)$	94 : $P_{412} = (3, 2, 5, 1)$
31 : $P_{128} = (6, 6, 0, 1)$	63 : $P_{277} = (4, 1, 3, 1)$	95 : $P_{418} = (1, 3, 5, 1)$

96 : $P_{432} = (7, 4, 5, 1)$
 97 : $P_{433} = (0, 5, 5, 1)$
 98 : $P_{434} = (1, 5, 5, 1)$
 99 : $P_{435} = (2, 5, 5, 1)$
 100 : $P_{436} = (3, 5, 5, 1)$
 101 : $P_{437} = (4, 5, 5, 1)$
 102 : $P_{438} = (5, 5, 5, 1)$
 103 : $P_{439} = (6, 5, 5, 1)$
 104 : $P_{440} = (7, 5, 5, 1)$
 105 : $P_{442} = (1, 6, 5, 1)$
 106 : $P_{452} = (3, 7, 5, 1)$
 107 : $P_{463} = (6, 0, 6, 1)$
 108 : $P_{467} = (2, 1, 6, 1)$
 109 : $P_{478} = (5, 2, 6, 1)$

110 : $P_{482} = (1, 3, 6, 1)$
 111 : $P_{494} = (5, 4, 6, 1)$
 112 : $P_{498} = (1, 5, 6, 1)$
 113 : $P_{505} = (0, 6, 6, 1)$
 114 : $P_{506} = (1, 6, 6, 1)$
 115 : $P_{507} = (2, 6, 6, 1)$
 116 : $P_{508} = (3, 6, 6, 1)$
 117 : $P_{509} = (4, 6, 6, 1)$
 118 : $P_{510} = (5, 6, 6, 1)$
 119 : $P_{511} = (6, 6, 6, 1)$
 120 : $P_{512} = (7, 6, 6, 1)$
 121 : $P_{515} = (2, 7, 6, 1)$
 122 : $P_{528} = (7, 0, 7, 1)$
 123 : $P_{531} = (2, 1, 7, 1)$

124 : $P_{540} = (3, 2, 7, 1)$
 125 : $P_{551} = (6, 3, 7, 1)$
 126 : $P_{559} = (6, 4, 7, 1)$
 127 : $P_{564} = (3, 5, 7, 1)$
 128 : $P_{571} = (2, 6, 7, 1)$
 129 : $P_{577} = (0, 7, 7, 1)$
 130 : $P_{578} = (1, 7, 7, 1)$
 131 : $P_{579} = (2, 7, 7, 1)$
 132 : $P_{580} = (3, 7, 7, 1)$
 133 : $P_{581} = (4, 7, 7, 1)$
 134 : $P_{582} = (5, 7, 7, 1)$
 135 : $P_{583} = (6, 7, 7, 1)$
 136 : $P_{584} = (7, 7, 7, 1)$