

Rank-21 over GF(8)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(8) is 21

General information

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

Singular Points

The surface has 9 singular points:

$$0 : P_2 = \mathbf{P}(0, 0, 1, 0) = \mathbf{P}(0, 0, 1, 0)$$

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

$$2 : P_{138} = \mathbf{P}(0, 0, 1, 1) = \mathbf{P}(0, 0, 1, 1)$$

$$3 : P_{201} = \mathbf{P}(0, 0, \gamma, 1) = \mathbf{P}(0, 0, 2, 1)$$

$$4 : P_{265} = \mathbf{P}(0, 0, \gamma^5, 1) = \mathbf{P}(0, 0, 3, 1)$$

$$5 : P_{329} = \mathbf{P}(0, 0, \gamma^2, 1) = \mathbf{P}(0, 0, 4, 1)$$

$$6 : P_{393} = \mathbf{P}(0, 0, \gamma^3, 1) = \mathbf{P}(0, 0, 5, 1)$$

$$7 : P_{457} = \mathbf{P}(0, 0, \gamma^6, 1) = \mathbf{P}(0, 0, 6, 1)$$

$$8 : P_{521} = \mathbf{P}(0, 0, \gamma^4, 1) = \mathbf{P}(0, 0, 7, 1)$$

The 73 Lines

The lines and their Pluecker coordinates are:

$$\begin{aligned}
\ell_0 &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{137} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{137} = \mathbf{Pl}(0, 0, 1, 0, 0, 1)_{664} \\
\ell_1 &= \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4744} = \begin{bmatrix} 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4744} = \mathbf{Pl}(0, 1, 0, 0, 0, 0)_1 \\
\ell_2 &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{721} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{721} = \mathbf{Pl}(0, 1, 1, 0, 0, 1)_{672} \\
\ell_3 &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{3641} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{3641} = \mathbf{Pl}(0, 6, 1, 0, 0, 1)_{677} \\
\ell_4 &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{2473} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{2473} = \mathbf{Pl}(0, 4, 1, 0, 0, 1)_{675} \\
\ell_5 &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{1889} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{1889} = \mathbf{Pl}(0, 3, 1, 0, 0, 1)_{674} \\
\ell_6 &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4225} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{4225} = \mathbf{Pl}(0, 7, 1, 0, 0, 1)_{678} \\
\ell_7 &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & 0 \end{bmatrix}_{1305} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{1305} = \mathbf{Pl}(0, 2, 1, 0, 0, 1)_{673} \\
\ell_8 &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{3057} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 0 \end{bmatrix}_{3057} = \mathbf{Pl}(0, 5, 1, 0, 0, 1)_{676} \\
\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 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{138} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{138} = \mathbf{Pl}(0, 0, 1, 1, 1, 1)_{1322} \\
\ell_{11} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{143} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{143} = \mathbf{Pl}(0, 0, 2, 6, 6, 1)_{3857} \\
\ell_{12} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{141} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{141} = \mathbf{Pl}(0, 0, 3, 4, 4, 1)_{2864} \\
\ell_{13} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{140} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{140} = \mathbf{Pl}(0, 0, 4, 3, 3, 1)_{2375} \\
\ell_{14} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{144} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{144} = \mathbf{Pl}(0, 0, 5, 7, 7, 1)_{4406} \\
\ell_{15} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{139} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{139} = \mathbf{Pl}(0, 0, 6, 2, 2, 1)_{1901} \\
\ell_{16} &= \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{142} = \begin{bmatrix} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{142} = \mathbf{Pl}(0, 0, 7, 5, 5, 1)_{3428} \\
\ell_{17} &= \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} \\
\ell_{18} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{722} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{722} = \mathbf{Pl}(0, 1, 1, 1, 1, 1)_{1330} \\
\ell_{19} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{3647} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{3647} = \mathbf{Pl}(0, 6, 2, 6, 6, 1)_{3870}
\end{aligned}$$

$$\begin{aligned}
\ell_{20} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{2477} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{2477} = \mathbf{Pl}(0, 4, 3, 4, 4, 1)_{2875} \\
\ell_{21} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{1892} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{1892} = \mathbf{Pl}(0, 3, 4, 3, 3, 1)_{2385} \\
\ell_{22} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{4232} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{4232} = \mathbf{Pl}(0, 7, 5, 7, 7, 1)_{4420} \\
\ell_{23} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{1307} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{1307} = \mathbf{Pl}(0, 2, 6, 2, 2, 1)_{1910} \\
\ell_{24} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{3062} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{3062} = \mathbf{Pl}(0, 5, 7, 5, 5, 1)_{3440} \\
\ell_{25} &= \begin{bmatrix} 1 & 1 & \gamma^6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3649} = \begin{bmatrix} 1 & 1 & 6 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3649} = \mathbf{Pl}(0, 6, 0, 1, 1, 0)_{214} \\
\ell_{26} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{2478} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{2478} = \mathbf{Pl}(0, 4, 7, 5, 5, 1)_{3439} \\
\ell_{27} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{723} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{723} = \mathbf{Pl}(0, 1, 6, 2, 2, 1)_{1909} \\
\ell_{28} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{3642} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{3642} = \mathbf{Pl}(0, 6, 1, 1, 1, 1)_{1335} \\
\ell_{29} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{1895} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{1895} = \mathbf{Pl}(0, 3, 2, 6, 6, 1)_{3867} \\
\ell_{30} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{4228} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{4228} = \mathbf{Pl}(0, 7, 4, 3, 3, 1)_{2389} \\
\ell_{31} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{1309} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{1309} = \mathbf{Pl}(0, 2, 3, 4, 4, 1)_{2873} \\
\ell_{32} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{3064} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{3064} = \mathbf{Pl}(0, 5, 5, 7, 7, 1)_{4418} \\
\ell_{33} &= \begin{bmatrix} 1 & 1 & \gamma^2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2481} = \begin{bmatrix} 1 & 1 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{2481} = \mathbf{Pl}(0, 4, 0, 1, 1, 0)_{212} \\
\ell_{34} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{3648} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{3648} = \mathbf{Pl}(0, 6, 5, 7, 7, 1)_{4419} \\
\ell_{35} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{724} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{724} = \mathbf{Pl}(0, 1, 4, 3, 3, 1)_{2383} \\
\ell_{36} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{2474} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{2474} = \mathbf{Pl}(0, 4, 1, 1, 1, 1)_{1333} \\
\ell_{37} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{1894} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{1894} = \mathbf{Pl}(0, 3, 7, 5, 5, 1)_{3438} \\
\ell_{38} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{4229} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{4229} = \mathbf{Pl}(0, 7, 3, 4, 4, 1)_{2878} \\
\ell_{39} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{1311} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{1311} = \mathbf{Pl}(0, 2, 2, 6, 6, 1)_{3866} \\
\ell_{40} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{3059} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{3059} = \mathbf{Pl}(0, 5, 6, 2, 2, 1)_{1913}
\end{aligned}$$

$$\begin{aligned}
\ell_{41} &= \begin{bmatrix} 1 & 1 & \gamma^5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1897} = \begin{bmatrix} 1 & 1 & 3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1897} = \mathbf{Pl}(0, 3, 0, 1, 1, 0)_{211} \\
\ell_{42} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{4231} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{4231} = \mathbf{Pl}(0, 7, 2, 6, 6, 1)_{3871} \\
\ell_{43} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{725} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{725} = \mathbf{Pl}(0, 1, 3, 4, 4, 1)_{2872} \\
\ell_{44} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{3643} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{3643} = \mathbf{Pl}(0, 6, 6, 2, 2, 1)_{1914} \\
\ell_{45} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{2480} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{2480} = \mathbf{Pl}(0, 4, 5, 7, 7, 1)_{4417} \\
\ell_{46} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{1890} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{1890} = \mathbf{Pl}(0, 3, 1, 1, 1, 1)_{1332} \\
\ell_{47} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{1310} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{1310} = \mathbf{Pl}(0, 2, 7, 5, 5, 1)_{3437} \\
\ell_{48} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{3060} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{3060} = \mathbf{Pl}(0, 5, 4, 3, 3, 1)_{2387} \\
\ell_{49} &= \begin{bmatrix} 1 & 1 & \gamma^4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4233} = \begin{bmatrix} 1 & 1 & 7 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{4233} = \mathbf{Pl}(0, 7, 0, 1, 1, 0)_{215} \\
\ell_{50} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{1891} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{1891} = \mathbf{Pl}(0, 3, 6, 2, 2, 1)_{1911} \\
\ell_{51} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{726} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{726} = \mathbf{Pl}(0, 1, 7, 5, 5, 1)_{3436} \\
\ell_{52} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{3645} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{3645} = \mathbf{Pl}(0, 6, 3, 4, 4, 1)_{2877} \\
\ell_{53} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{2476} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{2476} = \mathbf{Pl}(0, 4, 4, 3, 3, 1)_{2386} \\
\ell_{54} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4226} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{4226} = \mathbf{Pl}(0, 7, 1, 1, 1, 1)_{1336} \\
\ell_{55} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{1312} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{1312} = \mathbf{Pl}(0, 2, 5, 7, 7, 1)_{4415} \\
\ell_{56} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{3063} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{3063} = \mathbf{Pl}(0, 5, 2, 6, 6, 1)_{3869} \\
\ell_{57} &= \begin{bmatrix} 1 & 1 & \gamma & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1313} = \begin{bmatrix} 1 & 1 & 2 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{1313} = \mathbf{Pl}(0, 2, 0, 1, 1, 0)_{210} \\
\ell_{58} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{3061} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{3061} = \mathbf{Pl}(0, 5, 3, 4, 4, 1)_{2876} \\
\ell_{59} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{727} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{727} = \mathbf{Pl}(0, 1, 2, 6, 6, 1)_{3865} \\
\ell_{60} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{3644} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{3644} = \mathbf{Pl}(0, 6, 4, 3, 3, 1)_{2388} \\
\ell_{61} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{2475} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{2475} = \mathbf{Pl}(0, 4, 6, 2, 2, 1)_{1912}
\end{aligned}$$

$$\begin{aligned}
\ell_{62} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{1896} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{1896} = \mathbf{Pl}(0, 3, 5, 7, 7, 1)_{4416} \\
\ell_{63} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{4230} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{4230} = \mathbf{Pl}(0, 7, 7, 5, 5, 1)_{3442} \\
\ell_{64} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & 1 \end{bmatrix}_{1306} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{1306} = \mathbf{Pl}(0, 2, 1, 1, 1, 1)_{1331} \\
\ell_{65} &= \begin{bmatrix} 1 & 1 & \gamma^3 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3065} = \begin{bmatrix} 1 & 1 & 5 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}_{3065} = \mathbf{Pl}(0, 5, 0, 1, 1, 0)_{213} \\
\ell_{66} &= \begin{bmatrix} 1 & 1 & 0 & \gamma \\ 0 & 0 & 1 & \gamma^5 \end{bmatrix}_{1308} = \begin{bmatrix} 1 & 1 & 0 & 2 \\ 0 & 0 & 1 & 3 \end{bmatrix}_{1308} = \mathbf{Pl}(0, 2, 4, 3, 3, 1)_{2384} \\
\ell_{67} &= \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & \gamma^4 \end{bmatrix}_{728} = \begin{bmatrix} 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 7 \end{bmatrix}_{728} = \mathbf{Pl}(0, 1, 5, 7, 7, 1)_{4414} \\
\ell_{68} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^6 \\ 0 & 0 & 1 & \gamma^3 \end{bmatrix}_{3646} = \begin{bmatrix} 1 & 1 & 0 & 6 \\ 0 & 0 & 1 & 5 \end{bmatrix}_{3646} = \mathbf{Pl}(0, 6, 7, 5, 5, 1)_{3441} \\
\ell_{69} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^2 \\ 0 & 0 & 1 & \gamma^6 \end{bmatrix}_{2479} = \begin{bmatrix} 1 & 1 & 0 & 4 \\ 0 & 0 & 1 & 6 \end{bmatrix}_{2479} = \mathbf{Pl}(0, 4, 2, 6, 6, 1)_{3868} \\
\ell_{70} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^5 \\ 0 & 0 & 1 & \gamma^2 \end{bmatrix}_{1893} = \begin{bmatrix} 1 & 1 & 0 & 3 \\ 0 & 0 & 1 & 4 \end{bmatrix}_{1893} = \mathbf{Pl}(0, 3, 3, 4, 4, 1)_{2874} \\
\ell_{71} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^4 \\ 0 & 0 & 1 & \gamma \end{bmatrix}_{4227} = \begin{bmatrix} 1 & 1 & 0 & 7 \\ 0 & 0 & 1 & 2 \end{bmatrix}_{4227} = \mathbf{Pl}(0, 7, 6, 2, 2, 1)_{1915} \\
\ell_{72} &= \begin{bmatrix} 1 & 1 & 0 & \gamma^3 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{3058} = \begin{bmatrix} 1 & 1 & 0 & 5 \\ 0 & 0 & 1 & 1 \end{bmatrix}_{3058} = \mathbf{Pl}(0, 5, 1, 1, 1, 1)_{1334}
\end{aligned}$$

Rank of lines: (137, 4744, 721, 3641, 2473, 1889, 4225, 1305, 3057, 145, 138, 143, 141, 140, 144, 139, 142, 729, 722, 3647, 2477, 1892, 4232, 1307, 3062, 3649, 2478, 723, 3642, 1895, 4228, 1309, 3064, 2481, 3648, 724, 2474, 1894, 4229, 1311, 3059, 1897, 4231, 725, 3643, 2480, 1890, 1310, 3060, 4233, ...1893, 4227, 3058)

Rank of points on Klein quadric: (664, 1, 672, 677, 675, 674, 678, 673, 676, 201, 1322, 3857, 2864, 2375, 4406, 1901, 3428, 209, 1330, 3870, 2875, 2385, 4420, 1910, 3440, 214, 3439, 1909, 1335, 3867, 2389, 2873, 4418, 212, 4419, 2383, 1333, 3438, 2878, 3866, 1913, 211, 3871, 2872, 1914, 4417, 1332, 3437, 2387, 215, ...2874, 1915, 1334)

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 0 points not on any line:

The points on the surface but not on lines are:

Line Intersection Graph

[illegible]

Neighbor sets in the line intersection graph:

Line 0 intersects

Line	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}	ℓ_{21}	ℓ_{22}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{20}	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}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_3	P_{138}	P_{201}	P_{265}	P_{329}	P_{393}	P_{457}	P_{521}	P_3	P_{138}	P_{201}	P_{265}

Line 2 intersects

Line	ℓ_0	ℓ_1	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{83}	P_4	P_{210}	P_{274}	P_{338}	P_{402}	P_{466}	P_{530}	P_4	P_{83}	P_{274}	P_{210}

Line 3 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{92}	P_{155}	P_{219}	P_{283}	P_{347}	P_{411}	P_{475}	P_{539}	P_{219}	P_{283}	P_{92}	P_{155}

Line 4 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{101}	P_{164}	P_{228}	P_{292}	P_{356}	P_{420}	P_{484}	P_{548}	P_{292}	P_{228}	P_{164}	P_{101}

Line 5 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{110}	P_{173}	P_{237}	P_{301}	P_{365}	P_{429}	P_{493}	P_{557}	P_{365}	P_{429}	P_{493}	P_{110}

Line 6 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{119}	P_{182}	P_{246}	P_{310}	P_{374}	P_{438}	P_{502}	P_{566}	P_{438}	P_{374}	P_{566}	P_{119}

Line 7 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{128}	P_{191}	P_{255}	P_{319}	P_{383}	P_{447}	P_{511}	P_{575}	P_{511}	P_{575}	P_{383}	P_{128}

Line 8 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_2	P_{137}	P_{200}	P_{264}	P_{328}	P_{392}	P_{456}	P_{520}	P_{584}	P_{584}	P_{520}	P_{264}	P_{137}

Line 9 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_5	P_3	P_{83}	P_{92}	P_{101}	P_{110}	P_{119}	P_{128}	P_{137}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_3	P_{83}	P_{92}

Line 10 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}	ℓ_{20}
in point	P_5	P_{138}	P_4	P_{155}	P_{164}	P_{173}	P_{182}	P_{191}	P_{200}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_4	P_{138}	P_{164}

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}
in point	P_5	P_{201}	P_{210}	P_{219}	P_{228}	P_{237}	P_{246}	P_{255}	P_{264}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{219}	P_{228}	P_{201}

Line 12 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_5	P_{265}	P_{274}	P_{283}	P_{292}	P_{301}	P_{310}	P_{319}	P_{328}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{292}	P_{283}	P_{274}

Line 13 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_5	P_{329}	P_{338}	P_{347}	P_{356}	P_{365}	P_{374}	P_{383}	P_{392}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{365}	P_{374}	P_{383}

Line 14 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_5	P_{393}	P_{402}	P_{411}	P_{420}	P_{429}	P_{438}	P_{447}	P_{456}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{438}	P_{429}	P_{456}

Line 15 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{16}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_5	P_{457}	P_{466}	P_{475}	P_{484}	P_{493}	P_{502}	P_{511}	P_{520}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{511}	P_{520}	P_{493}

Line 16 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{17}	ℓ_{18}	ℓ_{19}
in point	P_5	P_{521}	P_{530}	P_{539}	P_{548}	P_{557}	P_{566}	P_{575}	P_{584}	P_5	P_5	P_5	P_5	P_5	P_5	P_5	P_{584}	P_{575}	P_{566}

Line 17 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{18}	ℓ_{19}
in point	P_{20}	P_3	P_4	P_{219}	P_{292}	P_{365}	P_{438}	P_{511}	P_{584}	P_3	P_4	P_{219}	P_{292}	P_{365}	P_{438}	P_{511}	P_{584}	P_{20}	P_{511}

Line 18 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}
in point	P_{20}	P_{138}	P_{83}	P_{283}	P_{228}	P_{429}	P_{374}	P_{575}	P_{520}	P_{83}	P_{138}	P_{228}	P_{283}	P_{374}	P_{429}	P_{520}	P_{575}	P_{520}	P_{575}

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_{19}
in point	P_{20}	P_{201}	P_{274}	P_{92}	P_{164}	P_{493}	P_{566}	P_{383}	P_{456}	P_{92}	P_{164}	P_{201}	P_{274}	P_{383}	P_{456}	P_{493}	P_{566}	P_{566}	P_{566}

Line 20 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}
in point	P_{20}	P_{265}	P_{210}	P_{155}	P_{101}	P_{557}	P_{502}	P_{447}	P_{392}	P_{101}	P_{155}	P_{210}	P_{265}	P_{392}	P_{447}	P_{502}	P_{557}	P_{557}	P_{557}

Line 21 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}
in point	P_{20}	P_{329}	P_{402}	P_{475}	P_{548}	P_{110}	P_{182}	P_{255}	P_{328}	P_{110}	P_{182}	P_{255}	P_{328}	P_{329}	P_{402}	P_{475}	P_{548}	P_{548}	P_{548}

Line 22 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}
in point	P_{20}	P_{393}	P_{338}	P_{539}	P_{484}	P_{173}	P_{119}	P_{319}	P_{264}	P_{119}	P_{173}	P_{264}	P_{319}	P_{338}	P_{393}	P_{484}	P_{539}	P_{539}	P_{539}

Line 23 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}
in point	P_{20}	P_{457}	P_{530}	P_{347}	P_{420}	P_{237}	P_{310}	P_{128}	P_{200}	P_{128}	P_{200}	P_{237}	P_{310}	P_{347}	P_{420}	P_{457}	P_{530}	P_{530}	P_{530}

Line 24 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}	ℓ_{19}
in point	P_{20}	P_{521}	P_{466}	P_{411}	P_{356}	P_{301}	P_{246}	P_{191}	P_{137}	P_{137}	P_{191}	P_{246}	P_{301}	P_{356}	P_{411}	P_{466}	P_{521}	P_{521}	P_{521}

Line 25 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_3	P_{466}	P_{155}	P_{548}	P_{237}	P_{374}	P_{319}	P_{456}	P_3	P_{155}	P_{237}	P_{319}	P_{374}	P_{456}	P_{466}	P_{548}	P_3

Line 26 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_{521}	P_4	P_{475}	P_{101}	P_{429}	P_{310}	P_{383}	P_{264}	P_{101}	P_4	P_{264}	P_{310}	P_{383}	P_{429}	P_{475}	P_{521}	P_4

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_{29}	P_{457}	P_{83}	P_{539}	P_{164}	P_{365}	P_{246}	P_{447}	P_{328}	P_{83}	P_{164}	P_{246}	P_{328}	P_{365}	P_{447}	P_{457}	P_{539}	P_{164}

Line 28 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_{138}	P_{530}	P_{92}	P_{484}	P_{301}	P_{438}	P_{255}	P_{392}	P_{92}	P_{138}	P_{255}	P_{301}	P_{392}	P_{438}	P_{484}	P_{530}	P_{92}

Line 29 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_{201}	P_{338}	P_{283}	P_{420}	P_{110}	P_{502}	P_{191}	P_{584}	P_{110}	P_{191}	P_{201}	P_{283}	P_{338}	P_{420}	P_{502}	P_{584}	P_{191}

Line 30 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_{329}	P_{210}	P_{411}	P_{292}	P_{493}	P_{119}	P_{575}	P_{200}	P_{119}	P_{200}	P_{210}	P_{292}	P_{329}	P_{411}	P_{493}	P_{575}	P_{200}

Line 31 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_{265}	P_{402}	P_{219}	P_{356}	P_{173}	P_{566}	P_{128}	P_{520}	P_{128}	P_{173}	P_{219}	P_{265}	P_{356}	P_{402}	P_{520}	P_{566}	P_{128}

Line 32 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{29}	P_{393}	P_{274}	P_{347}	P_{228}	P_{557}	P_{182}	P_{511}	P_{137}	P_{137}	P_{182}	P_{228}	P_{274}	P_{347}	P_{393}	P_{511}	P_{557}	P_{137}

Line 33 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{38}	P_3	P_{338}	P_{411}	P_{164}	P_{557}	P_{310}	P_{255}	P_{520}	P_3	P_{164}	P_{255}	P_{310}	P_{338}	P_{411}	P_{520}	P_{557}	P_3

Line 34 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{38}	P_{393}	P_4	P_{92}	P_{356}	P_{237}	P_{502}	P_{575}	P_{328}	P_{92}	P_4	P_{237}	P_{328}	P_{356}	P_{393}	P_{502}	P_{575}	P_4

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_{38}	P_{329}	P_{83}	P_{155}	P_{420}	P_{301}	P_{566}	P_{511}	P_{264}	P_{83}	P_{155}	P_{264}	P_{301}	P_{329}	P_{420}	P_{511}	P_{566}	P_{264}

Line 36 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{38}	P_{138}	P_{402}	P_{347}	P_{101}	P_{493}	P_{246}	P_{319}	P_{584}	P_{101}	P_{138}	P_{246}	P_{319}	P_{347}	P_{402}	P_{493}	P_{584}	P_{138}

Line 37 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{38}	P_{521}	P_{274}	P_{219}	P_{484}	P_{110}	P_{374}	P_{447}	P_{200}	P_{110}	P_{200}	P_{219}	P_{274}	P_{374}	P_{447}	P_{484}	P_{521}	P_{274}

Line 38 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}
in point	P_{38}	P_{265}	P_{530}	P_{475}	P_{228}	P_{365}	P_{119}	P_{191}	P_{456}	P_{119}	P_{191}	P_{228}	P_{265}	P_{365}	P_{456}	P_{475}	P_{530}

Line 39 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}
in point	P_{38}	P_{201}	P_{466}	P_{539}	P_{292}	P_{429}	P_{182}	P_{128}	P_{392}	P_{128}	P_{182}	P_{201}	P_{292}	P_{392}	P_{429}	P_{466}	P_{539}

Line 40 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}
in point	P_{38}	P_{457}	P_{210}	P_{283}	P_{548}	P_{173}	P_{438}	P_{383}	P_{137}	P_{137}	P_{173}	P_{210}	P_{283}	P_{383}	P_{438}	P_{457}	P_{548}

Line 41 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_3	P_{274}	P_{475}	P_{420}	P_{173}	P_{246}	P_{575}	P_{392}	P_3	P_{173}	P_{246}	P_{274}	P_{392}	P_{420}	P_{475}	P_{575}	P_3

Line 42 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_{201}	P_4	P_{347}	P_{548}	P_{301}	P_{119}	P_{447}	P_{520}	P_{119}	P_4	P_{201}	P_{301}	P_{347}	P_{447}	P_{520}	P_{548}	P_4

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_{47}	P_{265}	P_{83}	P_{411}	P_{484}	P_{237}	P_{182}	P_{383}	P_{584}	P_{83}	P_{182}	P_{237}	P_{265}	P_{383}	P_{411}	P_{484}	P_{584}	P_{47}

Line 44 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_{457}	P_{402}	P_{92}	P_{292}	P_{557}	P_{374}	P_{191}	P_{264}	P_{92}	P_{191}	P_{264}	P_{292}	P_{374}	P_{402}	P_{457}	P_{557}	P_{47}

Line 45 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_{393}	P_{466}	P_{283}	P_{101}	P_{365}	P_{566}	P_{255}	P_{200}	P_{101}	P_{200}	P_{255}	P_{283}	P_{365}	P_{393}	P_{466}	P_{566}	P_{47}

Line 46 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_{138}	P_{210}	P_{539}	P_{356}	P_{110}	P_{310}	P_{511}	P_{456}	P_{110}	P_{138}	P_{210}	P_{310}	P_{356}	P_{456}	P_{511}	P_{539}	P_{47}

Line 47 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_{521}	P_{338}	P_{155}	P_{228}	P_{493}	P_{438}	P_{128}	P_{328}	P_{128}	P_{155}	P_{228}	P_{328}	P_{338}	P_{438}	P_{493}	P_{521}	P_{47}

Line 48 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{47}	P_{329}	P_{530}	P_{219}	P_{164}	P_{429}	P_{502}	P_{319}	P_{137}	P_{137}	P_{164}	P_{219}	P_{319}	P_{329}	P_{429}	P_{502}	P_{530}	P_{47}

Line 49 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_3	P_{530}	P_{283}	P_{356}	P_{493}	P_{182}	P_{447}	P_{264}	P_3	P_{182}	P_{264}	P_{283}	P_{356}	P_{447}	P_{493}	P_{530}	P_3

Line 50 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_{457}	P_4	P_{411}	P_{228}	P_{110}	P_{566}	P_{319}	P_{392}	P_{110}	P_4	P_{228}	P_{319}	P_{392}	P_{411}	P_{457}	P_{566}	P_{56}

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_{56}	P_{521}	P_{83}	P_{347}	P_{292}	P_{173}	P_{502}	P_{255}	P_{456}	P_{83}	P_{173}	P_{255}	P_{292}	P_{347}	P_{456}	P_{502}	P_{521}	P_{83}

Line 52 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_{265}	P_{338}	P_{92}	P_{548}	P_{429}	P_{246}	P_{511}	P_{200}	P_{92}	P_{200}	P_{246}	P_{265}	P_{338}	P_{429}	P_{511}	P_{548}	P_{92}

Line 53 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_{329}	P_{274}	P_{539}	P_{101}	P_{237}	P_{438}	P_{191}	P_{520}	P_{101}	P_{191}	P_{237}	P_{274}	P_{329}	P_{438}	P_{520}	P_{539}	P_{101}

Line 54 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_{138}	P_{466}	P_{219}	P_{420}	P_{557}	P_{119}	P_{383}	P_{328}	P_{119}	P_{138}	P_{219}	P_{328}	P_{383}	P_{420}	P_{466}	P_{557}	P_{138}

Line 55 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_{393}	P_{210}	P_{475}	P_{164}	P_{301}	P_{374}	P_{128}	P_{584}	P_{128}	P_{164}	P_{210}	P_{301}	P_{374}	P_{393}	P_{475}	P_{584}	P_{164}

Line 56 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{56}	P_{201}	P_{402}	P_{155}	P_{484}	P_{365}	P_{310}	P_{575}	P_{137}	P_{137}	P_{155}	P_{201}	P_{310}	P_{365}	P_{402}	P_{484}	P_{575}	P_{155}

Line 57 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_3	P_{210}	P_{347}	P_{484}	P_{429}	P_{566}	P_{191}	P_{328}	P_3	P_{191}	P_{210}	P_{328}	P_{347}	P_{429}	P_{484}	P_{566}	P_3

Line 58 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_{265}	P_4	P_{539}	P_{420}	P_{493}	P_{374}	P_{255}	P_{137}	P_{137}	P_4	P_{255}	P_{265}	P_{374}	P_{420}	P_{493}	P_{539}	P_4

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}
in point	P_{65}	P_{201}	P_{83}	P_{475}	P_{356}	P_{557}	P_{438}	P_{319}	P_{200}	P_{83}	P_{200}	P_{201}	P_{319}	P_{356}	P_{438}	P_{475}	P_{557}	P_{201}

Line 60 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_{329}	P_{466}	P_{92}	P_{228}	P_{173}	P_{310}	P_{447}	P_{584}	P_{92}	P_{173}	P_{228}	P_{310}	P_{329}	P_{447}	P_{466}	P_{584}	P_{329}

Line 61 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_{457}	P_{338}	P_{219}	P_{101}	P_{301}	P_{182}	P_{575}	P_{456}	P_{101}	P_{182}	P_{219}	P_{301}	P_{338}	P_{456}	P_{457}	P_{575}	P_{338}

Line 62 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_{393}	P_{530}	P_{155}	P_{292}	P_{110}	P_{246}	P_{383}	P_{520}	P_{110}	P_{155}	P_{246}	P_{292}	P_{383}	P_{393}	P_{520}	P_{530}	P_{155}

Line 63 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_{521}	P_{402}	P_{283}	P_{164}	P_{237}	P_{119}	P_{511}	P_{392}	P_{119}	P_{164}	P_{237}	P_{283}	P_{392}	P_{402}	P_{511}	P_{521}	P_{402}

Line 64 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{65}	P_{138}	P_{274}	P_{411}	P_{548}	P_{365}	P_{502}	P_{128}	P_{264}	P_{128}	P_{138}	P_{264}	P_{274}	P_{365}	P_{411}	P_{502}	P_{548}	P_{128}

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_{74}	P_3	P_{402}	P_{539}	P_{228}	P_{301}	P_{502}	P_{383}	P_{200}	P_3	P_{200}	P_{228}	P_{301}	P_{383}	P_{402}	P_{502}	P_{539}	P_3

Line 66 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{74}	P_{329}	P_4	P_{283}	P_{484}	P_{557}	P_{246}	P_{128}	P_{456}	P_{128}	P_4	P_{246}	P_{283}	P_{329}	P_{456}	P_{484}	P_{557}	P_4

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_{74}	P_{393}	P_{83}	P_{219}	P_{548}	P_{493}	P_{310}	P_{191}	P_{392}	P_{83}	P_{191}	P_{219}	P_{310}	P_{392}	P_{393}	P_{493}	P_{548}	P_{83}

Line 68 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{74}	P_{521}	P_{210}	P_{92}	P_{420}	P_{365}	P_{182}	P_{319}	P_{520}	P_{92}	P_{182}	P_{210}	P_{319}	P_{365}	P_{420}	P_{520}	P_{521}	P_{210}

Line 69 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{74}	P_{201}	P_{530}	P_{411}	P_{101}	P_{173}	P_{374}	P_{511}	P_{328}	P_{101}	P_{173}	P_{201}	P_{328}	P_{374}	P_{411}	P_{511}	P_{530}	P_{530}

Line 70 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{74}	P_{265}	P_{466}	P_{347}	P_{164}	P_{110}	P_{438}	P_{575}	P_{264}	P_{110}	P_{164}	P_{264}	P_{265}	P_{347}	P_{438}	P_{466}	P_{575}	P_{575}

Line 71 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{74}	P_{457}	P_{274}	P_{155}	P_{356}	P_{429}	P_{119}	P_{255}	P_{584}	P_{119}	P_{155}	P_{255}	P_{274}	P_{356}	P_{429}	P_{457}	P_{584}	P_{584}

Line 72 intersects

Line	ℓ_0	ℓ_1	ℓ_2	ℓ_3	ℓ_4	ℓ_5	ℓ_6	ℓ_7	ℓ_8	ℓ_9	ℓ_{10}	ℓ_{11}	ℓ_{12}	ℓ_{13}	ℓ_{14}	ℓ_{15}	ℓ_{16}	ℓ_{17}
in point	P_{74}	P_{138}	P_{338}	P_{475}	P_{292}	P_{237}	P_{566}	P_{447}	P_{137}	P_{137}	P_{138}	P_{237}	P_{292}	P_{338}	P_{447}	P_{475}	P_{566}	P_{566}

The surface has 73 points:

The points on the surface are:

$$0 : P_2 = (0, 0, 1, 0)$$

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

$$2 : P_4 = (1, 1, 1, 1)$$

$$3 : P_5 = (1, 1, 0, 0)$$

$$4 : P_{20} = (1, 1, 1, 0)$$

$$5 : P_{29} = (2, 2, 1, 0)$$

$$6 : P_{38} = (3, 3, 1, 0)$$

$$7 : P_{47} = (4, 4, 1, 0)$$

$$8 : P_{56} = (5, 5, 1, 0)$$

$$9 : P_{65} = (6, 6, 1, 0)$$

$$10 : P_{74} = (7, 7, 1, 0)$$

$$11 : P_{83} = (1, 1, 0, 1)$$

$$12 : P_{92} = (2, 2, 0, 1)$$

$$13 : P_{101} = (3, 3, 0, 1)$$

$$14 : P_{110} = (4, 4, 0, 1)$$

$$15 : P_{119} = (5, 5, 0, 1)$$

$$16 : P_{128} = (6, 6, 0, 1)$$

$$17 : P_{137} = (7, 7, 0, 1)$$

$$18 : P_{138} = (0, 0, 1, 1)$$

$$19 : P_{155} = (2, 2, 1, 1)$$

$$20 : P_{164} = (3, 3, 1, 1)$$

$$21 : P_{173} = (4, 4, 1, 1)$$

$$22 : P_{182} = (5, 5, 1, 1)$$

$$23 : P_{191} = (6, 6, 1, 1)$$

$$24 : P_{200} = (7, 7, 1, 1)$$

$$25 : P_{201} = (0, 0, 2, 1)$$

$$26 : P_{210} = (1, 1, 2, 1)$$

27 : $P_{219} = (2, 2, 2, 1)$
 28 : $P_{228} = (3, 3, 2, 1)$
 29 : $P_{237} = (4, 4, 2, 1)$
 30 : $P_{246} = (5, 5, 2, 1)$
 31 : $P_{255} = (6, 6, 2, 1)$
 32 : $P_{264} = (7, 7, 2, 1)$
 33 : $P_{265} = (0, 0, 3, 1)$
 34 : $P_{274} = (1, 1, 3, 1)$
 35 : $P_{283} = (2, 2, 3, 1)$
 36 : $P_{292} = (3, 3, 3, 1)$
 37 : $P_{301} = (4, 4, 3, 1)$
 38 : $P_{310} = (5, 5, 3, 1)$
 39 : $P_{319} = (6, 6, 3, 1)$
 40 : $P_{328} = (7, 7, 3, 1)$
 41 : $P_{329} = (0, 0, 4, 1)$
 42 : $P_{338} = (1, 1, 4, 1)$

43 : $P_{347} = (2, 2, 4, 1)$
 44 : $P_{356} = (3, 3, 4, 1)$
 45 : $P_{365} = (4, 4, 4, 1)$
 46 : $P_{374} = (5, 5, 4, 1)$
 47 : $P_{383} = (6, 6, 4, 1)$
 48 : $P_{392} = (7, 7, 4, 1)$
 49 : $P_{393} = (0, 0, 5, 1)$
 50 : $P_{402} = (1, 1, 5, 1)$
 51 : $P_{411} = (2, 2, 5, 1)$
 52 : $P_{420} = (3, 3, 5, 1)$
 53 : $P_{429} = (4, 4, 5, 1)$
 54 : $P_{438} = (5, 5, 5, 1)$
 55 : $P_{447} = (6, 6, 5, 1)$
 56 : $P_{456} = (7, 7, 5, 1)$
 57 : $P_{457} = (0, 0, 6, 1)$
 58 : $P_{466} = (1, 1, 6, 1)$

59 : $P_{475} = (2, 2, 6, 1)$
 60 : $P_{484} = (3, 3, 6, 1)$
 61 : $P_{493} = (4, 4, 6, 1)$
 62 : $P_{502} = (5, 5, 6, 1)$
 63 : $P_{511} = (6, 6, 6, 1)$
 64 : $P_{520} = (7, 7, 6, 1)$
 65 : $P_{521} = (0, 0, 7, 1)$
 66 : $P_{530} = (1, 1, 7, 1)$
 67 : $P_{539} = (2, 2, 7, 1)$
 68 : $P_{548} = (3, 3, 7, 1)$
 69 : $P_{557} = (4, 4, 7, 1)$
 70 : $P_{566} = (5, 5, 7, 1)$
 71 : $P_{575} = (6, 6, 7, 1)$
 72 : $P_{584} = (7, 7, 7, 1)$