

Rank-346 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

$$X_0^3 + X_1^3 + X_2^3 + X_3^3 + X_0^2 X_3 + X_1^2 X_2 = 0$$

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

The point rank of the equation over GF(32) is -2112812978

General information

Number of lines	3
Number of points	1089
Number of singular points	0
Number of Eckardt points	0
Number of double points	0
Number of single points	99
Number of points off lines	990
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^3
Type of lines on points	$1^{99}, 0^{990}$

Singular Points

The surface has 0 singular points:

The 3 Lines

The lines and their Pluecker coordinates are:

$$\begin{aligned} \ell_0 &= \left[\begin{array}{cccc} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{array} \right]_{2082} = \left[\begin{array}{cccc} 1 & 1 & 0 & 0 \\ 0 & 0 & 1 & 1 \end{array} \right]_{2082} = \mathbf{Pl}(0, 0, 1, 1, 1, 1)_{70562} \\ \ell_1 &= \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{array} \right]_{1090} = \left[\begin{array}{cccc} 1 & 0 & 1 & 0 \\ 0 & 1 & 1 & 1 \end{array} \right]_{1090} = \mathbf{Pl}(1, 1, 1, 0, 1, 1)_{68640} \end{aligned}$$

$$\ell_2 = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{34913} = \begin{bmatrix} 1 & 0 & 1 & 1 \\ 0 & 1 & 0 & 1 \end{bmatrix}_{34913} = \mathbf{Pl}(1, 1, 0, 1, 1)_{69601}$$

Rank of lines: (2082, 1090, 34913)

Rank of points on Klein quadric: (70562, 68640, 69601)

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 99 single points:

The single points on the surface are:

- | | |
|--|--|
| 0 : $P_4 = (1, 1, 1, 1)$ lies on line ℓ_0 | 30 : $P_{2840} = (23, 23, 1, 1)$ lies on line ℓ_0 |
| 1 : $P_5 = (1, 1, 0, 0)$ lies on line ℓ_0 | 31 : $P_{2873} = (24, 24, 1, 1)$ lies on line ℓ_0 |
| 2 : $P_{36} = (1, 0, 1, 0)$ lies on line ℓ_1 | 32 : $P_{2906} = (25, 25, 1, 1)$ lies on line ℓ_0 |
| 3 : $P_{68} = (1, 1, 1, 0)$ lies on line ℓ_2 | 33 : $P_{2939} = (26, 26, 1, 1)$ lies on line ℓ_0 |
| 4 : $P_{1090} = (0, 1, 0, 1)$ lies on line ℓ_2 | 34 : $P_{2972} = (27, 27, 1, 1)$ lies on line ℓ_0 |
| 5 : $P_{1091} = (1, 1, 0, 1)$ lies on line ℓ_1 | 35 : $P_{3005} = (28, 28, 1, 1)$ lies on line ℓ_0 |
| 6 : $P_{2082} = (0, 0, 1, 1)$ lies on line ℓ_0 | 36 : $P_{3038} = (29, 29, 1, 1)$ lies on line ℓ_0 |
| 7 : $P_{2083} = (1, 0, 1, 1)$ lies on line ℓ_2 | 37 : $P_{3071} = (30, 30, 1, 1)$ lies on line ℓ_0 |
| 8 : $P_{2114} = (0, 1, 1, 1)$ lies on line ℓ_1 | 38 : $P_{3104} = (31, 31, 1, 1)$ lies on line ℓ_0 |
| 9 : $P_{2147} = (2, 2, 1, 1)$ lies on line ℓ_0 | 39 : $P_{3140} = (3, 1, 2, 1)$ lies on line ℓ_1 |
| 10 : $P_{2180} = (3, 3, 1, 1)$ lies on line ℓ_0 | 40 : $P_{3203} = (2, 3, 2, 1)$ lies on line ℓ_2 |
| 11 : $P_{2213} = (4, 4, 1, 1)$ lies on line ℓ_0 | 41 : $P_{4163} = (2, 1, 3, 1)$ lies on line ℓ_1 |
| 12 : $P_{2246} = (5, 5, 1, 1)$ lies on line ℓ_0 | 42 : $P_{4196} = (3, 2, 3, 1)$ lies on line ℓ_2 |
| 13 : $P_{2279} = (6, 6, 1, 1)$ lies on line ℓ_0 | 43 : $P_{5190} = (5, 1, 4, 1)$ lies on line ℓ_1 |
| 14 : $P_{2312} = (7, 7, 1, 1)$ lies on line ℓ_0 | 44 : $P_{5317} = (4, 5, 4, 1)$ lies on line ℓ_2 |
| 15 : $P_{2345} = (8, 8, 1, 1)$ lies on line ℓ_0 | 45 : $P_{6213} = (4, 1, 5, 1)$ lies on line ℓ_1 |
| 16 : $P_{2378} = (9, 9, 1, 1)$ lies on line ℓ_0 | 46 : $P_{6310} = (5, 4, 5, 1)$ lies on line ℓ_2 |
| 17 : $P_{2411} = (10, 10, 1, 1)$ lies on line ℓ_0 | 47 : $P_{7240} = (7, 1, 6, 1)$ lies on line ℓ_1 |
| 18 : $P_{2444} = (11, 11, 1, 1)$ lies on line ℓ_0 | 48 : $P_{7431} = (6, 7, 6, 1)$ lies on line ℓ_2 |
| 19 : $P_{2477} = (12, 12, 1, 1)$ lies on line ℓ_0 | 49 : $P_{8263} = (6, 1, 7, 1)$ lies on line ℓ_1 |
| 20 : $P_{2510} = (13, 13, 1, 1)$ lies on line ℓ_0 | 50 : $P_{8424} = (7, 6, 7, 1)$ lies on line ℓ_2 |
| 21 : $P_{2543} = (14, 14, 1, 1)$ lies on line ℓ_0 | 51 : $P_{9290} = (9, 1, 8, 1)$ lies on line ℓ_1 |
| 22 : $P_{2576} = (15, 15, 1, 1)$ lies on line ℓ_0 | 52 : $P_{9545} = (8, 9, 8, 1)$ lies on line ℓ_2 |
| 23 : $P_{2609} = (16, 16, 1, 1)$ lies on line ℓ_0 | 53 : $P_{10313} = (8, 1, 9, 1)$ lies on line ℓ_1 |
| 24 : $P_{2642} = (17, 17, 1, 1)$ lies on line ℓ_0 | 54 : $P_{10538} = (9, 8, 9, 1)$ lies on line ℓ_2 |
| 25 : $P_{2675} = (18, 18, 1, 1)$ lies on line ℓ_0 | 55 : $P_{11340} = (11, 1, 10, 1)$ lies on line ℓ_1 |
| 26 : $P_{2708} = (19, 19, 1, 1)$ lies on line ℓ_0 | 56 : $P_{11659} = (10, 11, 10, 1)$ lies on line ℓ_2 |
| 27 : $P_{2741} = (20, 20, 1, 1)$ lies on line ℓ_0 | 57 : $P_{12363} = (10, 1, 11, 1)$ lies on line ℓ_1 |
| 28 : $P_{2774} = (21, 21, 1, 1)$ lies on line ℓ_0 | 58 : $P_{12652} = (11, 10, 11, 1)$ lies on line ℓ_2 |
| 29 : $P_{2807} = (22, 22, 1, 1)$ lies on line ℓ_0 | 59 : $P_{13390} = (13, 1, 12, 1)$ lies on line ℓ_1 |

60 : $P_{13773} = (12, 13, 12, 1)$ lies on line ℓ_2
 61 : $P_{14413} = (12, 1, 13, 1)$ lies on line ℓ_1
 62 : $P_{14766} = (13, 12, 13, 1)$ lies on line ℓ_2
 63 : $P_{15440} = (15, 1, 14, 1)$ lies on line ℓ_1
 64 : $P_{15887} = (14, 15, 14, 1)$ lies on line ℓ_2
 65 : $P_{16463} = (14, 1, 15, 1)$ lies on line ℓ_1
 66 : $P_{16880} = (15, 14, 15, 1)$ lies on line ℓ_2
 67 : $P_{17490} = (17, 1, 16, 1)$ lies on line ℓ_1
 68 : $P_{18001} = (16, 17, 16, 1)$ lies on line ℓ_2
 69 : $P_{18513} = (16, 1, 17, 1)$ lies on line ℓ_1
 70 : $P_{18994} = (17, 16, 17, 1)$ lies on line ℓ_2
 71 : $P_{19540} = (19, 1, 18, 1)$ lies on line ℓ_1
 72 : $P_{20115} = (18, 19, 18, 1)$ lies on line ℓ_2
 73 : $P_{20563} = (18, 1, 19, 1)$ lies on line ℓ_1
 74 : $P_{21108} = (19, 18, 19, 1)$ lies on line ℓ_2
 75 : $P_{21590} = (21, 1, 20, 1)$ lies on line ℓ_1
 76 : $P_{22229} = (20, 21, 20, 1)$ lies on line ℓ_2
 77 : $P_{22613} = (20, 1, 21, 1)$ lies on line ℓ_1
 78 : $P_{23222} = (21, 20, 21, 1)$ lies on line ℓ_2
 79 : $P_{23640} = (23, 1, 22, 1)$ lies on line ℓ_1

80 : $P_{24343} = (22, 23, 22, 1)$ lies on line ℓ_2
 81 : $P_{24663} = (22, 1, 23, 1)$ lies on line ℓ_1
 82 : $P_{25336} = (23, 22, 23, 1)$ lies on line ℓ_2
 83 : $P_{25690} = (25, 1, 24, 1)$ lies on line ℓ_1
 84 : $P_{26457} = (24, 25, 24, 1)$ lies on line ℓ_2
 85 : $P_{26713} = (24, 1, 25, 1)$ lies on line ℓ_1
 86 : $P_{27450} = (25, 24, 25, 1)$ lies on line ℓ_2
 87 : $P_{27740} = (27, 1, 26, 1)$ lies on line ℓ_1
 88 : $P_{28571} = (26, 27, 26, 1)$ lies on line ℓ_2
 89 : $P_{28763} = (26, 1, 27, 1)$ lies on line ℓ_1
 90 : $P_{29564} = (27, 26, 27, 1)$ lies on line ℓ_2
 91 : $P_{29790} = (29, 1, 28, 1)$ lies on line ℓ_1
 92 : $P_{30685} = (28, 29, 28, 1)$ lies on line ℓ_2
 93 : $P_{30813} = (28, 1, 29, 1)$ lies on line ℓ_1
 94 : $P_{31678} = (29, 28, 29, 1)$ lies on line ℓ_2
 95 : $P_{31840} = (31, 1, 30, 1)$ lies on line ℓ_1
 96 : $P_{32799} = (30, 31, 30, 1)$ lies on line ℓ_2
 97 : $P_{32863} = (30, 1, 31, 1)$ lies on line ℓ_1
 98 : $P_{33792} = (31, 30, 31, 1)$ lies on line ℓ_2

The single points on the surface are:

Points on surface but on no line

The surface has 990 points not on any line:

The points on the surface but not on lines are:

0 : $P_{127} = (28, 2, 1, 0)$
 1 : $P_{157} = (26, 3, 1, 0)$
 2 : $P_{186} = (23, 4, 1, 0)$
 3 : $P_{198} = (3, 5, 1, 0)$
 4 : $P_{251} = (24, 6, 1, 0)$
 5 : $P_{280} = (21, 7, 1, 0)$
 6 : $P_{321} = (30, 8, 1, 0)$
 7 : $P_{350} = (27, 9, 1, 0)$
 8 : $P_{374} = (19, 10, 1, 0)$
 9 : $P_{389} = (2, 11, 1, 0)$
 10 : $P_{436} = (17, 12, 1, 0)$
 11 : $P_{458} = (7, 13, 1, 0)$
 12 : $P_{491} = (8, 14, 1, 0)$
 13 : $P_{519} = (4, 15, 1, 0)$
 14 : $P_{571} = (24, 16, 1, 0)$
 15 : $P_{584} = (5, 17, 1, 0)$
 16 : $P_{624} = (13, 18, 1, 0)$
 17 : $P_{657} = (14, 19, 1, 0)$
 18 : $P_{682} = (7, 20, 1, 0)$
 19 : $P_{735} = (28, 21, 1, 0)$
 20 : $P_{767} = (28, 22, 1, 0)$
 21 : $P_{795} = (24, 23, 1, 0)$
 22 : $P_{810} = (7, 24, 1, 0)$
 23 : $P_{858} = (23, 25, 1, 0)$

24 : $P_{879} = (12, 26, 1, 0)$
 25 : $P_{920} = (21, 27, 1, 0)$
 26 : $P_{954} = (23, 28, 1, 0)$
 27 : $P_{984} = (21, 29, 1, 0)$
 28 : $P_{1005} = (10, 30, 1, 0)$
 29 : $P_{1043} = (16, 31, 1, 0)$
 30 : $P_{1133} = (11, 2, 0, 1)$
 31 : $P_{1159} = (5, 3, 0, 1)$
 32 : $P_{1201} = (15, 4, 0, 1)$
 33 : $P_{1235} = (17, 5, 0, 1)$
 34 : $P_{1295} = (13, 7, 0, 1)$
 35 : $P_{1302} = (20, 7, 0, 1)$
 36 : $P_{1306} = (24, 7, 0, 1)$
 37 : $P_{1328} = (14, 8, 0, 1)$
 38 : $P_{1408} = (30, 10, 0, 1)$
 39 : $P_{1468} = (26, 12, 0, 1)$
 40 : $P_{1492} = (18, 13, 0, 1)$
 41 : $P_{1525} = (19, 14, 0, 1)$
 42 : $P_{1601} = (31, 16, 0, 1)$
 43 : $P_{1614} = (12, 17, 0, 1)$
 44 : $P_{1676} = (10, 19, 0, 1)$
 45 : $P_{1737} = (7, 21, 0, 1)$
 46 : $P_{1757} = (27, 21, 0, 1)$
 47 : $P_{1759} = (29, 21, 0, 1)$

48 : $P_{1798} = (4, 23, 0, 1)$	102 : $P_{3496} = (7, 12, 2, 1)$
49 : $P_{1819} = (25, 23, 0, 1)$	103 : $P_{3516} = (27, 12, 2, 1)$
50 : $P_{1822} = (28, 23, 0, 1)$	104 : $P_{3518} = (29, 12, 2, 1)$
51 : $P_{1832} = (6, 24, 0, 1)$	105 : $P_{3540} = (19, 13, 2, 1)$
52 : $P_{1842} = (16, 24, 0, 1)$	106 : $P_{3655} = (6, 17, 2, 1)$
53 : $P_{1849} = (23, 24, 0, 1)$	107 : $P_{3665} = (16, 17, 2, 1)$
54 : $P_{1893} = (3, 26, 0, 1)$	108 : $P_{3672} = (23, 17, 2, 1)$
55 : $P_{1931} = (9, 27, 0, 1)$	109 : $P_{3691} = (10, 18, 2, 1)$
56 : $P_{1956} = (2, 28, 0, 1)$	110 : $P_{3750} = (5, 20, 2, 1)$
57 : $P_{1975} = (21, 28, 0, 1)$	111 : $P_{3796} = (19, 21, 2, 1)$
58 : $P_{1976} = (22, 28, 0, 1)$	112 : $P_{3824} = (15, 22, 2, 1)$
59 : $P_{2026} = (8, 30, 0, 1)$	113 : $P_{3886} = (13, 24, 2, 1)$
60 : $P_{2166} = (21, 2, 1, 1)$	114 : $P_{3893} = (20, 24, 2, 1)$
61 : $P_{2167} = (22, 2, 1, 1)$	115 : $P_{3897} = (24, 24, 2, 1)$
62 : $P_{2234} = (25, 4, 1, 1)$	116 : $P_{3956} = (19, 26, 2, 1)$
63 : $P_{2237} = (28, 4, 1, 1)$	117 : $P_{3986} = (17, 27, 2, 1)$
64 : $P_{2289} = (16, 6, 1, 1)$	118 : $P_{4032} = (31, 28, 2, 1)$
65 : $P_{2296} = (23, 6, 1, 1)$	119 : $P_{4079} = (14, 30, 2, 1)$
66 : $P_{2332} = (27, 7, 1, 1)$	120 : $P_{4134} = (5, 0, 3, 1)$
67 : $P_{2334} = (29, 7, 1, 1)$	121 : $P_{4182} = (21, 1, 3, 1)$
68 : $P_{2517} = (20, 13, 1, 1)$	122 : $P_{4183} = (22, 1, 3, 1)$
69 : $P_{2521} = (24, 13, 1, 1)$	123 : $P_{4230} = (5, 3, 3, 1)$
70 : $P_{2599} = (6, 16, 1, 1)$	124 : $P_{4264} = (7, 4, 3, 1)$
71 : $P_{2616} = (23, 16, 1, 1)$	125 : $P_{4284} = (27, 4, 3, 1)$
72 : $P_{2734} = (13, 20, 1, 1)$	126 : $P_{4286} = (29, 4, 3, 1)$
73 : $P_{2745} = (24, 20, 1, 1)$	127 : $P_{4321} = (0, 6, 3, 1)$
74 : $P_{2755} = (2, 21, 1, 1)$	128 : $P_{4322} = (1, 6, 3, 1)$
75 : $P_{2775} = (22, 21, 1, 1)$	129 : $P_{4361} = (8, 7, 3, 1)$
76 : $P_{2787} = (2, 22, 1, 1)$	130 : $P_{4388} = (3, 8, 3, 1)$
77 : $P_{2806} = (21, 22, 1, 1)$	131 : $P_{4420} = (3, 9, 3, 1)$
78 : $P_{2823} = (6, 23, 1, 1)$	132 : $P_{4467} = (18, 10, 3, 1)$
79 : $P_{2833} = (16, 23, 1, 1)$	133 : $P_{4515} = (2, 12, 3, 1)$
80 : $P_{2862} = (13, 24, 1, 1)$	134 : $P_{4534} = (21, 12, 3, 1)$
81 : $P_{2869} = (20, 24, 1, 1)$	135 : $P_{4535} = (22, 12, 3, 1)$
82 : $P_{2885} = (4, 25, 1, 1)$	136 : $P_{4579} = (2, 14, 3, 1)$
83 : $P_{2909} = (28, 25, 1, 1)$	137 : $P_{4598} = (21, 14, 3, 1)$
84 : $P_{2952} = (7, 27, 1, 1)$	138 : $P_{4599} = (22, 14, 3, 1)$
85 : $P_{2974} = (29, 27, 1, 1)$	139 : $P_{4626} = (17, 15, 3, 1)$
86 : $P_{2981} = (4, 28, 1, 1)$	140 : $P_{4699} = (26, 17, 3, 1)$
87 : $P_{3002} = (25, 28, 1, 1)$	141 : $P_{4711} = (6, 18, 3, 1)$
88 : $P_{3016} = (7, 29, 1, 1)$	142 : $P_{4721} = (16, 18, 3, 1)$
89 : $P_{3036} = (27, 29, 1, 1)$	143 : $P_{4728} = (23, 18, 3, 1)$
90 : $P_{3116} = (11, 0, 2, 1)$	144 : $P_{4741} = (4, 19, 3, 1)$
91 : $P_{3180} = (11, 2, 2, 1)$	145 : $P_{4762} = (25, 19, 3, 1)$
92 : $P_{3222} = (21, 3, 2, 1)$	146 : $P_{4765} = (28, 19, 3, 1)$
93 : $P_{3223} = (22, 3, 2, 1)$	147 : $P_{4819} = (18, 21, 3, 1)$
94 : $P_{3272} = (7, 5, 2, 1)$	148 : $P_{4910} = (13, 24, 3, 1)$
95 : $P_{3292} = (27, 5, 2, 1)$	149 : $P_{4917} = (20, 24, 3, 1)$
96 : $P_{3294} = (29, 5, 2, 1)$	150 : $P_{4921} = (24, 24, 3, 1)$
97 : $P_{3309} = (12, 6, 2, 1)$	151 : $P_{4961} = (0, 26, 3, 1)$
98 : $P_{3359} = (30, 7, 2, 1)$	152 : $P_{4962} = (1, 26, 3, 1)$
99 : $P_{3464} = (7, 11, 2, 1)$	153 : $P_{5007} = (14, 27, 3, 1)$
100 : $P_{3484} = (27, 11, 2, 1)$	154 : $P_{5043} = (18, 28, 3, 1)$
101 : $P_{3486} = (29, 11, 2, 1)$	155 : $P_{5120} = (31, 30, 3, 1)$

156 : $P_{5121} = (0, 31, 3, 1)$	210 : $P_{6711} = (22, 16, 5, 1)$
157 : $P_{5122} = (1, 31, 3, 1)$	211 : $P_{6753} = (0, 18, 5, 1)$
158 : $P_{5168} = (15, 0, 4, 1)$	212 : $P_{6754} = (1, 18, 5, 1)$
159 : $P_{5229} = (12, 2, 4, 1)$	213 : $P_{6803} = (18, 19, 5, 1)$
160 : $P_{5257} = (8, 3, 4, 1)$	214 : $P_{6817} = (0, 20, 5, 1)$
161 : $P_{5296} = (15, 4, 4, 1)$	215 : $P_{6818} = (1, 20, 5, 1)$
162 : $P_{5338} = (25, 5, 4, 1)$	216 : $P_{6859} = (10, 21, 5, 1)$
163 : $P_{5341} = (28, 5, 4, 1)$	217 : $P_{6922} = (9, 23, 5, 1)$
164 : $P_{5384} = (7, 7, 4, 1)$	218 : $P_{7013} = (4, 26, 5, 1)$
165 : $P_{5404} = (27, 7, 4, 1)$	219 : $P_{7034} = (25, 26, 5, 1)$
166 : $P_{5406} = (29, 7, 4, 1)$	220 : $P_{7037} = (28, 26, 5, 1)$
167 : $P_{5455} = (14, 9, 4, 1)$	221 : $P_{7082} = (9, 28, 5, 1)$
168 : $P_{5550} = (13, 12, 4, 1)$	222 : $P_{7141} = (4, 30, 5, 1)$
169 : $P_{5557} = (20, 12, 4, 1)$	223 : $P_{7162} = (25, 30, 5, 1)$
170 : $P_{5561} = (24, 12, 4, 1)$	224 : $P_{7165} = (28, 30, 5, 1)$
171 : $P_{5635} = (2, 15, 4, 1)$	225 : $P_{7181} = (12, 31, 5, 1)$
172 : $P_{5654} = (21, 15, 4, 1)$	226 : $P_{7260} = (27, 1, 6, 1)$
173 : $P_{5655} = (22, 15, 4, 1)$	227 : $P_{7262} = (29, 1, 6, 1)$
174 : $P_{5699} = (2, 17, 4, 1)$	228 : $P_{7341} = (12, 4, 6, 1)$
175 : $P_{5718} = (21, 17, 4, 1)$	229 : $P_{7361} = (0, 5, 6, 1)$
176 : $P_{5719} = (22, 17, 4, 1)$	230 : $P_{7362} = (1, 5, 6, 1)$
177 : $P_{5791} = (30, 19, 4, 1)$	231 : $P_{7441} = (16, 7, 6, 1)$
178 : $P_{5819} = (26, 20, 4, 1)$	232 : $P_{7448} = (23, 7, 6, 1)$
179 : $P_{5844} = (19, 21, 4, 1)$	233 : $P_{7497} = (8, 9, 6, 1)$
180 : $P_{5907} = (18, 23, 4, 1)$	234 : $P_{7596} = (11, 12, 6, 1)$
181 : $P_{5984} = (31, 25, 4, 1)$	235 : $P_{7684} = (3, 15, 6, 1)$
182 : $P_{5987} = (2, 26, 4, 1)$	236 : $P_{7725} = (12, 16, 6, 1)$
183 : $P_{6006} = (21, 26, 4, 1)$	237 : $P_{7756} = (11, 17, 6, 1)$
184 : $P_{6007} = (22, 26, 4, 1)$	238 : $P_{7789} = (12, 18, 6, 1)$
185 : $P_{6025} = (8, 27, 4, 1)$	239 : $P_{7840} = (31, 19, 6, 1)$
186 : $P_{6057} = (8, 28, 4, 1)$	240 : $P_{7844} = (3, 20, 6, 1)$
187 : $P_{6098} = (17, 29, 4, 1)$	241 : $P_{7892} = (19, 21, 6, 1)$
188 : $P_{6194} = (17, 0, 5, 1)$	242 : $P_{7923} = (18, 22, 6, 1)$
189 : $P_{6234} = (25, 1, 5, 1)$	243 : $P_{8018} = (17, 25, 6, 1)$
190 : $P_{6237} = (28, 1, 5, 1)$	244 : $P_{8076} = (11, 27, 6, 1)$
191 : $P_{6271} = (30, 2, 5, 1)$	245 : $P_{8132} = (3, 29, 6, 1)$
192 : $P_{6273} = (0, 3, 5, 1)$	246 : $P_{8191} = (30, 30, 6, 1)$
193 : $P_{6274} = (1, 3, 5, 1)$	247 : $P_{8219} = (26, 31, 6, 1)$
194 : $P_{6354} = (17, 5, 5, 1)$	248 : $P_{8238} = (13, 0, 7, 1)$
195 : $P_{6408} = (7, 7, 5, 1)$	249 : $P_{8245} = (20, 0, 7, 1)$
196 : $P_{6428} = (27, 7, 5, 1)$	250 : $P_{8249} = (24, 0, 7, 1)$
197 : $P_{6430} = (29, 7, 5, 1)$	251 : $P_{8273} = (16, 1, 7, 1)$
198 : $P_{6439} = (6, 8, 5, 1)$	252 : $P_{8280} = (23, 1, 7, 1)$
199 : $P_{6449} = (16, 8, 5, 1)$	253 : $P_{8296} = (7, 2, 7, 1)$
200 : $P_{6456} = (23, 8, 5, 1)$	254 : $P_{8316} = (27, 2, 7, 1)$
201 : $P_{6478} = (13, 9, 5, 1)$	255 : $P_{8318} = (29, 2, 7, 1)$
202 : $P_{6485} = (20, 9, 5, 1)$	256 : $P_{8328} = (7, 3, 7, 1)$
203 : $P_{6489} = (24, 9, 5, 1)$	257 : $P_{8348} = (27, 3, 7, 1)$
204 : $P_{6502} = (5, 10, 5, 1)$	258 : $P_{8350} = (29, 3, 7, 1)$
205 : $P_{6534} = (5, 11, 5, 1)$	259 : $P_{8361} = (8, 4, 7, 1)$
206 : $P_{6564} = (3, 12, 5, 1)$	260 : $P_{8415} = (30, 5, 7, 1)$
207 : $P_{6634} = (9, 14, 5, 1)$	261 : $P_{8444} = (27, 6, 7, 1)$
208 : $P_{6691} = (2, 16, 5, 1)$	262 : $P_{8446} = (29, 6, 7, 1)$
209 : $P_{6710} = (21, 16, 5, 1)$	263 : $P_{8462} = (13, 7, 7, 1)$

264 : $P_{8469} = (20, 7, 7, 1)$	318 : $P_{10681} = (24, 12, 9, 1)$
265 : $P_{8473} = (24, 7, 7, 1)$	319 : $P_{10703} = (14, 13, 9, 1)$
266 : $P_{8483} = (2, 8, 7, 1)$	320 : $P_{10747} = (26, 14, 9, 1)$
267 : $P_{8502} = (21, 8, 7, 1)$	321 : $P_{10761} = (8, 15, 9, 1)$
268 : $P_{8503} = (22, 8, 7, 1)$	322 : $P_{10828} = (11, 17, 9, 1)$
269 : $P_{8539} = (26, 9, 7, 1)$	323 : $P_{10862} = (13, 18, 9, 1)$
270 : $P_{8556} = (11, 10, 7, 1)$	324 : $P_{10869} = (20, 18, 9, 1)$
271 : $P_{8592} = (15, 11, 7, 1)$	325 : $P_{10873} = (24, 18, 9, 1)$
272 : $P_{8609} = (0, 12, 7, 1)$	326 : $P_{10918} = (5, 20, 9, 1)$
273 : $P_{8610} = (1, 12, 7, 1)$	327 : $P_{10976} = (31, 21, 9, 1)$
274 : $P_{8649} = (8, 13, 7, 1)$	328 : $P_{11007} = (30, 22, 9, 1)$
275 : $P_{8681} = (8, 14, 7, 1)$	329 : $P_{11022} = (13, 23, 9, 1)$
276 : $P_{8747} = (10, 16, 7, 1)$	330 : $P_{11029} = (20, 23, 9, 1)$
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278 : $P_{8884} = (19, 20, 7, 1)$	332 : $P_{11041} = (0, 24, 9, 1)$
279 : $P_{8912} = (15, 21, 7, 1)$	333 : $P_{11042} = (1, 24, 9, 1)$
280 : $P_{9002} = (9, 24, 7, 1)$	334 : $P_{11131} = (26, 26, 9, 1)$
281 : $P_{9040} = (15, 25, 7, 1)$	335 : $P_{11184} = (15, 28, 9, 1)$
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284 : $P_{9215} = (30, 30, 7, 1)$	338 : $P_{11327} = (30, 0, 10, 1)$
285 : $P_{9228} = (11, 31, 7, 1)$	339 : $P_{11396} = (3, 3, 10, 1)$
286 : $P_{9263} = (14, 0, 8, 1)$	340 : $P_{11500} = (11, 6, 10, 1)$
287 : $P_{9390} = (13, 4, 8, 1)$	341 : $P_{11529} = (8, 7, 10, 1)$
288 : $P_{9397} = (20, 4, 8, 1)$	342 : $P_{11603} = (18, 9, 10, 1)$
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290 : $P_{9519} = (14, 8, 8, 1)$	344 : $P_{11724} = (11, 13, 10, 1)$
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292 : $P_{9671} = (6, 13, 8, 1)$	346 : $P_{11816} = (7, 16, 10, 1)$
293 : $P_{9681} = (16, 13, 8, 1)$	347 : $P_{11836} = (27, 16, 10, 1)$
294 : $P_{9688} = (23, 13, 8, 1)$	348 : $P_{11838} = (29, 16, 10, 1)$
295 : $P_{9731} = (2, 15, 8, 1)$	349 : $P_{11892} = (19, 18, 10, 1)$
296 : $P_{9750} = (21, 15, 8, 1)$	350 : $P_{12042} = (9, 23, 10, 1)$
297 : $P_{9751} = (22, 15, 8, 1)$	351 : $P_{12077} = (12, 24, 10, 1)$
298 : $P_{9770} = (9, 16, 8, 1)$	352 : $P_{12174} = (13, 27, 10, 1)$
299 : $P_{9856} = (31, 18, 8, 1)$	353 : $P_{12181} = (20, 27, 10, 1)$
300 : $P_{9897} = (8, 20, 8, 1)$	354 : $P_{12185} = (24, 27, 10, 1)$
301 : $P_{9929} = (8, 21, 8, 1)$	355 : $P_{12203} = (10, 28, 10, 1)$
302 : $P_{10002} = (17, 23, 8, 1)$	356 : $P_{12235} = (10, 29, 10, 1)$
303 : $P_{10036} = (19, 24, 8, 1)$	357 : $P_{12293} = (4, 31, 10, 1)$
304 : $P_{10058} = (9, 25, 8, 1)$	358 : $P_{12314} = (25, 31, 10, 1)$
305 : $P_{10107} = (26, 26, 8, 1)$	359 : $P_{12317} = (28, 31, 10, 1)$
306 : $P_{10163} = (18, 28, 8, 1)$	360 : $P_{12420} = (3, 3, 11, 1)$
307 : $P_{10271} = (30, 31, 8, 1)$	361 : $P_{12451} = (2, 4, 11, 1)$
308 : $P_{10344} = (7, 2, 9, 1)$	362 : $P_{12470} = (21, 4, 11, 1)$
309 : $P_{10364} = (27, 2, 9, 1)$	363 : $P_{12471} = (22, 4, 11, 1)$
310 : $P_{10366} = (29, 2, 9, 1)$	364 : $P_{12490} = (9, 5, 11, 1)$
311 : $P_{10387} = (18, 3, 9, 1)$	365 : $P_{12545} = (0, 7, 11, 1)$
312 : $P_{10436} = (3, 5, 9, 1)$	366 : $P_{12546} = (1, 7, 11, 1)$
313 : $P_{10468} = (3, 6, 9, 1)$	367 : $P_{12616} = (7, 9, 11, 1)$
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316 : $P_{10670} = (13, 12, 9, 1)$	370 : $P_{12720} = (15, 12, 11, 1)$
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372 : $P_{12870} = (5, 17, 11, 1)$
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 393 : $P_{13458} = (17, 3, 12, 1)$
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 459 : $P_{15464} = (7, 2, 14, 1)$
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 468 : $P_{15831} = (22, 13, 14, 1)$
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 641 : $P_{22082} = (1, 17, 20, 1)$

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 644 : $P_{22222} = (13, 21, 20, 1)$
 645 : $P_{22233} = (24, 21, 20, 1)$
 646 : $P_{22246} = (5, 22, 20, 1)$
 647 : $P_{22346} = (9, 25, 20, 1)$
 648 : $P_{22384} = (15, 26, 20, 1)$
 649 : $P_{22441} = (8, 28, 20, 1)$
 650 : $P_{22470} = (5, 29, 20, 1)$
 651 : $P_{22534} = (5, 31, 20, 1)$
 652 : $P_{22568} = (7, 0, 21, 1)$
 653 : $P_{22588} = (27, 0, 21, 1)$
 654 : $P_{22590} = (29, 0, 21, 1)$
 655 : $P_{22606} = (13, 1, 21, 1)$
 656 : $P_{22617} = (24, 1, 21, 1)$
 657 : $P_{22691} = (2, 4, 21, 1)$
 658 : $P_{22710} = (21, 4, 21, 1)$
 659 : $P_{22711} = (22, 4, 21, 1)$
 660 : $P_{22723} = (2, 5, 21, 1)$
 661 : $P_{22742} = (21, 5, 21, 1)$
 662 : $P_{22743} = (22, 5, 21, 1)$
 663 : $P_{22784} = (31, 6, 21, 1)$
 664 : $P_{22796} = (11, 7, 21, 1)$
 665 : $P_{22864} = (15, 9, 21, 1)$
 666 : $P_{22885} = (4, 10, 21, 1)$
 667 : $P_{22906} = (25, 10, 21, 1)$
 668 : $P_{22909} = (28, 10, 21, 1)$
 669 : $P_{22916} = (3, 11, 21, 1)$
 670 : $P_{22991} = (14, 13, 21, 1)$
 671 : $P_{23024} = (15, 14, 21, 1)$
 672 : $P_{23072} = (31, 15, 21, 1)$
 673 : $P_{23083} = (10, 16, 21, 1)$
 674 : $P_{23124} = (19, 17, 21, 1)$
 675 : $P_{23152} = (15, 18, 21, 1)$
 676 : $P_{23188} = (19, 19, 21, 1)$
 677 : $P_{23203} = (2, 20, 21, 1)$
 678 : $P_{23223} = (22, 20, 21, 1)$
 679 : $P_{23240} = (7, 21, 21, 1)$
 680 : $P_{23260} = (27, 21, 21, 1)$
 681 : $P_{23262} = (29, 21, 21, 1)$
 682 : $P_{23283} = (18, 22, 21, 1)$
 683 : $P_{23316} = (19, 23, 21, 1)$
 684 : $P_{23393} = (0, 26, 21, 1)$
 685 : $P_{23394} = (1, 26, 21, 1)$
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 687 : $P_{23488} = (31, 28, 21, 1)$
 688 : $P_{23497} = (8, 29, 21, 1)$
 689 : $P_{23531} = (10, 30, 21, 1)$
 690 : $P_{23623} = (6, 1, 22, 1)$
 691 : $P_{23633} = (16, 1, 22, 1)$
 692 : $P_{23654} = (5, 2, 22, 1)$
 693 : $P_{23699} = (18, 3, 22, 1)$
 694 : $P_{23763} = (18, 5, 22, 1)$
 695 : $P_{23789} = (12, 6, 22, 1)$

696 : $P_{23885} = (12, 9, 22, 1)$
 697 : $P_{23915} = (10, 10, 22, 1)$
 698 : $P_{23954} = (17, 11, 22, 1)$
 699 : $P_{24044} = (11, 14, 22, 1)$
 700 : $P_{24070} = (5, 15, 22, 1)$
 701 : $P_{24115} = (18, 16, 22, 1)$
 702 : $P_{24240} = (15, 20, 22, 1)$
 703 : $P_{24323} = (2, 23, 22, 1)$
 704 : $P_{24342} = (21, 23, 22, 1)$
 705 : $P_{24367} = (14, 24, 22, 1)$
 706 : $P_{24397} = (12, 25, 22, 1)$
 707 : $P_{24417} = (0, 26, 22, 1)$
 708 : $P_{24418} = (1, 26, 22, 1)$
 709 : $P_{24454} = (5, 27, 22, 1)$
 710 : $P_{24516} = (3, 29, 22, 1)$
 711 : $P_{24607} = (30, 31, 22, 1)$
 712 : $P_{24613} = (4, 0, 23, 1)$
 713 : $P_{24634} = (25, 0, 23, 1)$
 714 : $P_{24637} = (28, 0, 23, 1)$
 715 : $P_{24643} = (2, 1, 23, 1)$
 716 : $P_{24662} = (21, 1, 23, 1)$
 717 : $P_{24692} = (19, 2, 23, 1)$
 718 : $P_{24767} = (30, 4, 23, 1)$
 719 : $P_{24769} = (0, 5, 23, 1)$
 720 : $P_{24770} = (1, 5, 23, 1)$
 721 : $P_{24812} = (11, 6, 23, 1)$
 722 : $P_{24843} = (10, 7, 23, 1)$
 723 : $P_{24895} = (30, 8, 23, 1)$
 724 : $P_{24939} = (10, 10, 23, 1)$
 725 : $P_{24979} = (18, 11, 23, 1)$
 726 : $P_{24999} = (6, 12, 23, 1)$
 727 : $P_{25009} = (16, 12, 23, 1)$
 728 : $P_{25016} = (23, 12, 23, 1)$
 729 : $P_{25031} = (6, 13, 23, 1)$
 730 : $P_{25041} = (16, 13, 23, 1)$
 731 : $P_{25048} = (23, 13, 23, 1)$
 732 : $P_{25107} = (18, 15, 23, 1)$
 733 : $P_{25194} = (9, 18, 23, 1)$
 734 : $P_{25235} = (18, 19, 23, 1)$
 735 : $P_{25319} = (6, 22, 23, 1)$
 736 : $P_{25329} = (16, 22, 23, 1)$
 737 : $P_{25349} = (4, 23, 23, 1)$
 738 : $P_{25370} = (25, 23, 23, 1)$
 739 : $P_{25373} = (28, 23, 23, 1)$
 740 : $P_{25386} = (9, 24, 23, 1)$
 741 : $P_{25423} = (14, 25, 23, 1)$
 742 : $P_{25451} = (10, 26, 23, 1)$
 743 : $P_{25503} = (30, 27, 23, 1)$
 744 : $P_{25536} = (31, 28, 23, 1)$
 745 : $P_{25546} = (9, 29, 23, 1)$
 746 : $P_{25582} = (13, 30, 23, 1)$
 747 : $P_{25589} = (20, 30, 23, 1)$
 748 : $P_{25593} = (24, 30, 23, 1)$
 749 : $P_{25618} = (17, 31, 23, 1)$

750 : $P_{25639} = (6, 0, 24, 1)$
 751 : $P_{25649} = (16, 0, 24, 1)$
 752 : $P_{25656} = (23, 0, 24, 1)$
 753 : $P_{25669} = (4, 1, 24, 1)$
 754 : $P_{25693} = (28, 1, 24, 1)$
 755 : $P_{25716} = (19, 2, 24, 1)$
 756 : $P_{25743} = (14, 3, 24, 1)$
 757 : $P_{25769} = (8, 4, 24, 1)$
 758 : $P_{25855} = (30, 6, 24, 1)$
 759 : $P_{25868} = (11, 7, 24, 1)$
 760 : $P_{25898} = (9, 8, 24, 1)$
 761 : $P_{25932} = (11, 9, 24, 1)$
 762 : $P_{25972} = (19, 10, 24, 1)$
 763 : $P_{26095} = (14, 14, 24, 1)$
 764 : $P_{26122} = (9, 15, 24, 1)$
 765 : $P_{26164} = (19, 16, 24, 1)$
 766 : $P_{26177} = (0, 17, 24, 1)$
 767 : $P_{26178} = (1, 17, 24, 1)$
 768 : $P_{26221} = (12, 18, 24, 1)$
 769 : $P_{26248} = (7, 19, 24, 1)$
 770 : $P_{26268} = (27, 19, 24, 1)$
 771 : $P_{26270} = (29, 19, 24, 1)$
 772 : $P_{26288} = (15, 20, 24, 1)$
 773 : $P_{26319} = (14, 21, 24, 1)$
 774 : $P_{26348} = (11, 22, 24, 1)$
 775 : $P_{26387} = (18, 23, 24, 1)$
 776 : $P_{26407} = (6, 24, 24, 1)$
 777 : $P_{26417} = (16, 24, 24, 1)$
 778 : $P_{26424} = (23, 24, 24, 1)$
 779 : $P_{26446} = (13, 25, 24, 1)$
 780 : $P_{26453} = (20, 25, 24, 1)$
 781 : $P_{26478} = (13, 26, 24, 1)$
 782 : $P_{26485} = (20, 26, 24, 1)$
 783 : $P_{26489} = (24, 26, 24, 1)$
 784 : $P_{26510} = (13, 27, 24, 1)$
 785 : $P_{26517} = (20, 27, 24, 1)$
 786 : $P_{26521} = (24, 27, 24, 1)$
 787 : $P_{26634} = (9, 31, 24, 1)$
 788 : $P_{26702} = (13, 1, 25, 1)$
 789 : $P_{26709} = (20, 1, 25, 1)$
 790 : $P_{26738} = (17, 2, 25, 1)$
 791 : $P_{26753} = (0, 3, 25, 1)$
 792 : $P_{26754} = (1, 3, 25, 1)$
 793 : $P_{26802} = (17, 4, 25, 1)$
 794 : $P_{26826} = (9, 5, 25, 1)$
 795 : $P_{26875} = (26, 6, 25, 1)$
 796 : $P_{26911} = (30, 7, 25, 1)$
 797 : $P_{27035} = (26, 11, 25, 1)$
 798 : $P_{27082} = (9, 13, 25, 1)$
 799 : $P_{27119} = (14, 14, 25, 1)$
 800 : $P_{27149} = (12, 15, 25, 1)$
 801 : $P_{27210} = (9, 17, 25, 1)$
 802 : $P_{27252} = (19, 18, 25, 1)$
 803 : $P_{27323} = (26, 20, 25, 1)$

804 : $P_{27366} = (5, 22, 25, 1)$
 805 : $P_{27429} = (4, 24, 25, 1)$
 806 : $P_{27453} = (28, 24, 25, 1)$
 807 : $P_{27616} = (31, 29, 25, 1)$
 808 : $P_{27632} = (15, 30, 25, 1)$
 809 : $P_{27666} = (17, 31, 25, 1)$
 810 : $P_{27684} = (3, 0, 26, 1)$
 811 : $P_{27720} = (7, 1, 26, 1)$
 812 : $P_{27742} = (29, 1, 26, 1)$
 813 : $P_{27758} = (13, 2, 26, 1)$
 814 : $P_{27765} = (20, 2, 26, 1)$
 815 : $P_{27769} = (24, 2, 26, 1)$
 816 : $P_{27853} = (12, 5, 26, 1)$
 817 : $P_{27936} = (31, 7, 26, 1)$
 818 : $P_{27968} = (31, 8, 26, 1)$
 819 : $P_{28008} = (7, 10, 26, 1)$
 820 : $P_{28028} = (27, 10, 26, 1)$
 821 : $P_{28030} = (29, 10, 26, 1)$
 822 : $P_{28038} = (5, 11, 26, 1)$
 823 : $P_{28065} = (0, 12, 26, 1)$
 824 : $P_{28066} = (1, 12, 26, 1)$
 825 : $P_{28107} = (10, 13, 26, 1)$
 826 : $P_{28144} = (15, 14, 26, 1)$
 827 : $P_{28161} = (0, 15, 26, 1)$
 828 : $P_{28162} = (1, 15, 26, 1)$
 829 : $P_{28232} = (7, 17, 26, 1)$
 830 : $P_{28252} = (27, 17, 26, 1)$
 831 : $P_{28254} = (29, 17, 26, 1)$
 832 : $P_{28283} = (26, 18, 26, 1)$
 833 : $P_{28315} = (26, 19, 26, 1)$
 834 : $P_{28384} = (31, 21, 26, 1)$
 835 : $P_{28423} = (6, 23, 26, 1)$
 836 : $P_{28433} = (16, 23, 26, 1)$
 837 : $P_{28440} = (23, 23, 26, 1)$
 838 : $P_{28468} = (19, 24, 26, 1)$
 839 : $P_{28481} = (0, 25, 26, 1)$
 840 : $P_{28482} = (1, 25, 26, 1)$
 841 : $P_{28516} = (3, 26, 26, 1)$
 842 : $P_{28643} = (2, 30, 26, 1)$
 843 : $P_{28662} = (21, 30, 26, 1)$
 844 : $P_{28663} = (22, 30, 26, 1)$
 845 : $P_{28677} = (4, 31, 26, 1)$
 846 : $P_{28698} = (25, 31, 26, 1)$
 847 : $P_{28701} = (28, 31, 26, 1)$
 848 : $P_{28714} = (9, 0, 27, 1)$
 849 : $P_{28814} = (13, 3, 27, 1)$
 850 : $P_{28821} = (20, 3, 27, 1)$
 851 : $P_{28825} = (24, 3, 27, 1)$
 852 : $P_{28869} = (4, 5, 27, 1)$
 853 : $P_{28890} = (25, 5, 27, 1)$
 854 : $P_{28893} = (28, 5, 27, 1)$
 855 : $P_{28900} = (3, 6, 27, 1)$
 856 : $P_{28959} = (30, 7, 27, 1)$
 857 : $P_{29006} = (13, 9, 27, 1)$

858 : $P_{29013} = (20, 9, 27, 1)$
 859 : $P_{29017} = (24, 9, 27, 1)$
 860 : $P_{29119} = (30, 12, 27, 1)$
 861 : $P_{29126} = (5, 13, 27, 1)$
 862 : $P_{29163} = (10, 14, 27, 1)$
 863 : $P_{29247} = (30, 16, 27, 1)$
 864 : $P_{29262} = (13, 17, 27, 1)$
 865 : $P_{29269} = (20, 17, 27, 1)$
 866 : $P_{29273} = (24, 17, 27, 1)$
 867 : $P_{29392} = (15, 21, 27, 1)$
 868 : $P_{29447} = (6, 23, 27, 1)$
 869 : $P_{29457} = (16, 23, 27, 1)$
 870 : $P_{29464} = (23, 23, 27, 1)$
 871 : $P_{29487} = (14, 24, 27, 1)$
 872 : $P_{29522} = (17, 25, 27, 1)$
 873 : $P_{29544} = (7, 26, 27, 1)$
 874 : $P_{29566} = (29, 26, 27, 1)$
 875 : $P_{29578} = (9, 27, 27, 1)$
 876 : $P_{29644} = (11, 29, 27, 1)$
 877 : $P_{29705} = (8, 31, 27, 1)$
 878 : $P_{29731} = (2, 0, 28, 1)$
 879 : $P_{29750} = (21, 0, 28, 1)$
 880 : $P_{29751} = (22, 0, 28, 1)$
 881 : $P_{29768} = (7, 1, 28, 1)$
 882 : $P_{29788} = (27, 1, 28, 1)$
 883 : $P_{29807} = (14, 2, 28, 1)$
 884 : $P_{29825} = (0, 3, 28, 1)$
 885 : $P_{29826} = (1, 3, 28, 1)$
 886 : $P_{29993} = (8, 8, 28, 1)$
 887 : $P_{30048} = (31, 9, 28, 1)$
 888 : $P_{30112} = (31, 11, 28, 1)$
 889 : $P_{30121} = (8, 12, 28, 1)$
 890 : $P_{30159} = (14, 13, 28, 1)$
 891 : $P_{30183} = (6, 14, 28, 1)$
 892 : $P_{30193} = (16, 14, 28, 1)$
 893 : $P_{30200} = (23, 14, 28, 1)$
 894 : $P_{30214} = (5, 15, 28, 1)$
 895 : $P_{30245} = (4, 16, 28, 1)$
 896 : $P_{30266} = (25, 16, 28, 1)$
 897 : $P_{30269} = (28, 16, 28, 1)$
 898 : $P_{30277} = (4, 17, 28, 1)$
 899 : $P_{30298} = (25, 17, 28, 1)$
 900 : $P_{30301} = (28, 17, 28, 1)$
 901 : $P_{30351} = (14, 19, 28, 1)$
 902 : $P_{30387} = (18, 20, 28, 1)$
 903 : $P_{30416} = (15, 21, 28, 1)$
 904 : $P_{30443} = (10, 22, 28, 1)$
 905 : $P_{30483} = (18, 23, 28, 1)$
 906 : $P_{30505} = (8, 24, 28, 1)$
 907 : $P_{30538} = (9, 25, 28, 1)$
 908 : $P_{30623} = (30, 27, 28, 1)$
 909 : $P_{30627} = (2, 28, 28, 1)$
 910 : $P_{30646} = (21, 28, 28, 1)$
 911 : $P_{30647} = (22, 28, 28, 1)$

912 : $P_{30661} = (4, 29, 28, 1)$
 913 : $P_{30682} = (25, 29, 28, 1)$
 914 : $P_{30720} = (31, 30, 28, 1)$
 915 : $P_{30739} = (18, 31, 28, 1)$
 916 : $P_{30789} = (4, 1, 29, 1)$
 917 : $P_{30810} = (25, 1, 29, 1)$
 918 : $P_{30880} = (31, 3, 29, 1)$
 919 : $P_{30912} = (31, 4, 29, 1)$
 920 : $P_{30956} = (11, 6, 29, 1)$
 921 : $P_{31017} = (8, 8, 29, 1)$
 922 : $P_{31046} = (5, 9, 29, 1)$
 923 : $P_{31082} = (9, 10, 29, 1)$
 924 : $P_{31108} = (3, 11, 29, 1)$
 925 : $P_{31137} = (0, 12, 29, 1)$
 926 : $P_{31138} = (1, 12, 29, 1)$
 927 : $P_{31172} = (3, 13, 29, 1)$
 928 : $P_{31247} = (14, 15, 29, 1)$
 929 : $P_{31346} = (17, 18, 29, 1)$
 930 : $P_{31419} = (26, 20, 29, 1)$
 931 : $P_{31474} = (17, 22, 29, 1)$
 932 : $P_{31499} = (10, 23, 29, 1)$
 933 : $P_{31570} = (17, 25, 29, 1)$
 934 : $P_{31616} = (31, 26, 29, 1)$
 935 : $P_{31620} = (3, 27, 29, 1)$
 936 : $P_{31656} = (7, 28, 29, 1)$
 937 : $P_{31676} = (27, 28, 29, 1)$
 938 : $P_{31785} = (8, 0, 30, 1)$
 939 : $P_{31872} = (31, 2, 30, 1)$
 940 : $P_{31907} = (2, 4, 30, 1)$
 941 : $P_{31926} = (21, 4, 30, 1)$
 942 : $P_{31927} = (22, 4, 30, 1)$
 943 : $P_{32016} = (15, 7, 30, 1)$
 944 : $P_{32078} = (13, 9, 30, 1)$
 945 : $P_{32085} = (20, 9, 30, 1)$
 946 : $P_{32089} = (24, 9, 30, 1)$
 947 : $P_{32139} = (10, 11, 30, 1)$
 948 : $P_{32268} = (11, 15, 30, 1)$
 949 : $P_{32338} = (17, 17, 30, 1)$
 950 : $P_{32365} = (12, 18, 30, 1)$
 951 : $P_{32452} = (3, 21, 30, 1)$

952 : $P_{32575} = (30, 24, 30, 1)$
 953 : $P_{32607} = (30, 25, 30, 1)$
 954 : $P_{32645} = (4, 27, 30, 1)$
 955 : $P_{32666} = (25, 27, 30, 1)$
 956 : $P_{32669} = (28, 27, 30, 1)$
 957 : $P_{32687} = (14, 28, 30, 1)$
 958 : $P_{32736} = (31, 29, 30, 1)$
 959 : $P_{32745} = (8, 30, 30, 1)$
 960 : $P_{32915} = (18, 3, 31, 1)$
 961 : $P_{32937} = (8, 4, 31, 1)$
 962 : $P_{32965} = (4, 5, 31, 1)$
 963 : $P_{32986} = (25, 5, 31, 1)$
 964 : $P_{32989} = (28, 5, 31, 1)$
 965 : $P_{33010} = (17, 6, 31, 1)$
 966 : $P_{33034} = (9, 7, 31, 1)$
 967 : $P_{33074} = (17, 8, 31, 1)$
 968 : $P_{33119} = (30, 9, 31, 1)$
 969 : $P_{33158} = (5, 11, 31, 1)$
 970 : $P_{33200} = (15, 12, 31, 1)$
 971 : $P_{33223} = (6, 13, 31, 1)$
 972 : $P_{33233} = (16, 13, 31, 1)$
 973 : $P_{33240} = (23, 13, 31, 1)$
 974 : $P_{33285} = (4, 15, 31, 1)$
 975 : $P_{33306} = (25, 15, 31, 1)$
 976 : $P_{33309} = (28, 15, 31, 1)$
 977 : $P_{33362} = (17, 17, 31, 1)$
 978 : $P_{33421} = (12, 19, 31, 1)$
 979 : $P_{33451} = (10, 20, 31, 1)$
 980 : $P_{33477} = (4, 21, 31, 1)$
 981 : $P_{33498} = (25, 21, 31, 1)$
 982 : $P_{33501} = (28, 21, 31, 1)$
 983 : $P_{33517} = (12, 22, 31, 1)$
 984 : $P_{33567} = (30, 23, 31, 1)$
 985 : $P_{33580} = (11, 24, 31, 1)$
 986 : $P_{33627} = (26, 25, 31, 1)$
 987 : $P_{33645} = (12, 26, 31, 1)$
 988 : $P_{33697} = (0, 28, 31, 1)$
 989 : $P_{33698} = (1, 28, 31, 1)$

Line Intersection Graph

	0	1	2
0	0	0	0
1	0	0	0
2	0	0	0

Neighbor sets in the line intersection graph:
 Line 0 intersects

Line
in point

Line 1 intersects

Line
in point

Line 2 intersects

Line
in point

The surface has 1089 points:
Too many to print.