Rank-65899 over GF(32)

January 15, 2021

The equation

The equation of the surface is :

$$X_3^3 + X_0^2X_2 + X_0^2X_3 + X_1^2X_2 + X_0X_1X_2 = 0$$

(0, 0, 0, 1, 0, 1, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(32) is -2079259611

General information

Number of lines	2
Number of points	1057
Number of singular points	1
Number of Eckardt points	0
Number of double points	1
Number of single points	64
Number of points off lines	992
Number of Hesse planes	0
Number of axes	0
Type of points on lines	33^2
Type of lines on points	2, 1^{64}, 0^{992}

Singular Points

The surface has 1 singular points:

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

The 2 Lines

The lines and their Pluecker coordinates are:

$$\ell_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_0 = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \end{bmatrix}_0 = \mathbf{Pl}(1,0,0,0,0,0)_0$$

$$\ell_1 = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{33824} = \begin{bmatrix} 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 0 \end{bmatrix}_{33824} = \mathbf{Pl}(1,0,0,1,0,0)_{66}$$

Rank of lines: (0, 33824)
Rank of points on Klein quadric: (0, 66)

Eckardt Points

The surface has 0 Eckardt points:

Double Points

The surface has 1 Double points:
The double points on the surface are:

$P_1 = (0,1,0,0) = \ell_0 \cap \ell_1$

Single Points

The surface has 64 single points:
The single points on the surface are:

0 : $P_0 = (1,0,0,0)$ lies on line ℓ_0
1 : $P_5 = (1,1,0,0)$ lies on line ℓ_0
2 : $P_6 = (2,1,0,0)$ lies on line ℓ_0
3 : $P_7 = (3,1,0,0)$ lies on line ℓ_0
4 : $P_8 = (4,1,0,0)$ lies on line ℓ_0
5 : $P_9 = (5,1,0,0)$ lies on line ℓ_0
6 : $P_{10} = (6,1,0,0)$ lies on line ℓ_0
7 : $P_{11} = (7,1,0,0)$ lies on line ℓ_0
8 : $P_{12} = (8,1,0,0)$ lies on line ℓ_0
9 : $P_{13} = (9,1,0,0)$ lies on line ℓ_0
10 : $P_{14} = (10,1,0,0)$ lies on line ℓ_0
11 : $P_{15} = (11,1,0,0)$ lies on line ℓ_0
12 : $P_{16} = (12,1,0,0)$ lies on line ℓ_0
13 : $P_{17} = (13,1,0,0)$ lies on line ℓ_0
14 : $P_{18} = (14,1,0,0)$ lies on line ℓ_0
15 : $P_{19} = (15,1,0,0)$ lies on line ℓ_0
16 : $P_{20} = (16,1,0,0)$ lies on line ℓ_0
17 : $P_{21} = (17,1,0,0)$ lies on line ℓ_0
18 : $P_{22} = (18,1,0,0)$ lies on line ℓ_0
19 : $P_{23} = (19,1,0,0)$ lies on line ℓ_0
20 : $P_{24} = (20,1,0,0)$ lies on line ℓ_0
21 : $P_{25} = (21,1,0,0)$ lies on line ℓ_0
22 : $P_{26} = (22,1,0,0)$ lies on line ℓ_0
23 : $P_{27} = (23,1,0,0)$ lies on line ℓ_0
24 : $P_{28} = (24,1,0,0)$ lies on line ℓ_0
25 : $P_{29} = (25,1,0,0)$ lies on line ℓ_0
26 : $P_{30} = (26,1,0,0)$ lies on line ℓ_0
27 : $P_{31} = (27,1,0,0)$ lies on line ℓ_0
28 : $P_{32} = (28,1,0,0)$ lies on line ℓ_0
29 : $P_{33} = (29,1,0,0)$ lies on line ℓ_0
30 : $P_{34} = (30,1,0,0)$ lies on line ℓ_0
31 : $P_{35} = (31,1,0,0)$ lies on line ℓ_0
32 : $P_{1059} = (1,0,0,1)$ lies on line ℓ_1
33 : $P_{1091} = (1,1,0,1)$ lies on line ℓ_1
34 : $P_{1123} = (1,2,0,1)$ lies on line ℓ_1
35 : $P_{1155} = (1,3,0,1)$ lies on line ℓ_1
36 : $P_{1187} = (1,4,0,1)$ lies on line ℓ_1
37 : $P_{1219} = (1,5,0,1)$ lies on line ℓ_1
38 : $P_{1251} = (1,6,0,1)$ lies on line ℓ_1
39 : $P_{1283} = (1,7,0,1)$ lies on line ℓ_1
40 : $P_{1315} = (1,8,0,1)$ lies on line ℓ_1
41 : $P_{1347} = (1,9,0,1)$ lies on line ℓ_1
42 : $P_{1379} = (1,10,0,1)$ lies on line ℓ_1
43 : $P_{1411} = (1,11,0,1)$ lies on line ℓ_1
44 : $P_{1443} = (1,12,0,1)$ lies on line ℓ_1
45 : $P_{1475} = (1,13,0,1)$ lies on line ℓ_1
46 : $P_{1507} = (1,14,0,1)$ lies on line ℓ_1
47 : $P_{1539} = (1,15,0,1)$ lies on line ℓ_1
48 : $P_{1571} = (1,16,0,1)$ lies on line ℓ_1
49 : $P_{1603} = (1,17,0,1)$ lies on line ℓ_1
50 : $P_{1635} = (1,18,0,1)$ lies on line ℓ_1
51 : $P_{1667} = (1,19,0,1)$ lies on line ℓ_1
52 : $P_{1699} = (1,20,0,1)$ lies on line ℓ_1
53 : $P_{1731} = (1,21,0,1)$ lies on line ℓ_1
54 : $P_{1763} = (1,22,0,1)$ lies on line ℓ_1
55 : $P_{1795} = (1,23,0,1)$ lies on line ℓ_1
56 : $P_{1827} = (1,24,0,1)$ lies on line ℓ_1
57 : $P_{1859} = (1,25,0,1)$ lies on line ℓ_1

58 : $P_{1891} = (1, 26, 0, 1)$ lies on line ℓ_1
59 : $P_{1923} = (1, 27, 0, 1)$ lies on line ℓ_1
60 : $P_{1955} = (1, 28, 0, 1)$ lies on line ℓ_1
61 : $P_{1987} = (1, 29, 0, 1)$ lies on line ℓ_1
62 : $P_{2019} = (1, 30, 0, 1)$ lies on line ℓ_1
63 : $P_{2051} = (1, 31, 0, 1)$ lies on line ℓ_1

The single points on the surface are:

Points on surface but on no line

The surface has 992 points not on any line:
The points on the surface but not on lines are:

0 : $P_2 = (0, 0, 1, 0)$
1 : $P_{2114} = (0, 1, 1, 1)$
2 : $P_{2161} = (16, 2, 1, 1)$
3 : $P_{2208} = (31, 3, 1, 1)$
4 : $P_{2222} = (13, 4, 1, 1)$
5 : $P_{2259} = (18, 5, 1, 1)$
6 : $P_{2281} = (8, 6, 1, 1)$
7 : $P_{2316} = (11, 7, 1, 1)$
8 : $P_{2367} = (30, 8, 1, 1)$
9 : $P_{2382} = (13, 9, 1, 1)$
10 : $P_{2420} = (19, 10, 1, 1)$
11 : $P_{2460} = (27, 11, 1, 1)$
12 : $P_{2476} = (11, 12, 1, 1)$
13 : $P_{2499} = (2, 13, 1, 1)$
14 : $P_{2537} = (8, 14, 1, 1)$
15 : $P_{2563} = (2, 15, 1, 1)$
16 : $P_{2620} = (27, 16, 1, 1)$
17 : $P_{2634} = (9, 17, 1, 1)$
18 : $P_{2673} = (16, 18, 1, 1)$
19 : $P_{2703} = (14, 19, 1, 1)$
20 : $P_{2731} = (10, 20, 1, 1)$
21 : $P_{2768} = (15, 21, 1, 1)$
22 : $P_{2815} = (30, 22, 1, 1)$
23 : $P_{2835} = (18, 23, 1, 1)$
24 : $P_{2858} = (9, 24, 1, 1)$
25 : $P_{2900} = (19, 25, 1, 1)$
26 : $P_{2928} = (15, 26, 1, 1)$
27 : $P_{2949} = (4, 27, 1, 1)$
28 : $P_{3008} = (31, 28, 1, 1)$
29 : $P_{3023} = (14, 29, 1, 1)$
30 : $P_{3051} = (10, 30, 1, 1)$
31 : $P_{3077} = (4, 31, 1, 1)$
32 : $P_{3126} = (21, 0, 2, 1)$
33 : $P_{3209} = (8, 3, 2, 1)$
34 : $P_{3211} = (10, 3, 2, 1)$
35 : $P_{3245} = (12, 4, 2, 1)$
36 : $P_{3256} = (23, 4, 2, 1)$
37 : $P_{3281} = (16, 5, 2, 1)$
38 : $P_{3287} = (22, 5, 2, 1)$
39 : $P_{3323} = (26, 6, 2, 1)$
40 : $P_{3327} = (30, 6, 2, 1)$
41 : $P_{3373} = (12, 8, 2, 1)$
42 : $P_{3392} = (31, 8, 2, 1)$
43 : $P_{3397} = (4, 9, 2, 1)$
44 : $P_{3403} = (10, 9, 2, 1)$
45 : $P_{3465} = (8, 11, 2, 1)$
46 : $P_{3482} = (25, 11, 2, 1)$
47 : $P_{3525} = (4, 13, 2, 1)$
48 : $P_{3538} = (17, 13, 2, 1)$
49 : $P_{3686} = (5, 18, 2, 1)$
50 : $P_{3706} = (25, 18, 2, 1)$
51 : $P_{3735} = (22, 19, 2, 1)$
52 : $P_{3736} = (23, 19, 2, 1)$
53 : $P_{3793} = (16, 21, 2, 1)$
54 : $P_{3798} = (21, 21, 2, 1)$
55 : $P_{3818} = (9, 22, 2, 1)$
56 : $P_{3823} = (14, 22, 2, 1)$
57 : $P_{3846} = (5, 23, 2, 1)$
58 : $P_{3872} = (31, 23, 2, 1)$
59 : $P_{3887} = (14, 24, 2, 1)$
60 : $P_{3903} = (30, 24, 2, 1)$
61 : $P_{4018} = (17, 28, 2, 1)$
62 : $P_{4027} = (26, 28, 2, 1)$
63 : $P_{4097} = (0, 31, 2, 1)$
64 : $P_{4106} = (9, 31, 2, 1)$
65 : $P_{4160} = (31, 0, 3, 1)$
66 : $P_{4171} = (10, 1, 3, 1)$
67 : $P_{4186} = (25, 1, 3, 1)$
68 : $P_{4222} = (29, 2, 3, 1)$
69 : $P_{4223} = (30, 2, 3, 1)$
70 : $P_{4275} = (18, 4, 3, 1)$
71 : $P_{4277} = (20, 4, 3, 1)$
72 : $P_{4472} = (23, 10, 3, 1)$
73 : $P_{4473} = (24, 10, 3, 1)$
74 : $P_{4491} = (10, 11, 3, 1)$
75 : $P_{4503} = (22, 11, 3, 1)$
76 : $P_{4653} = (12, 16, 3, 1)$
77 : $P_{4661} = (20, 16, 3, 1)$
78 : $P_{4676} = (3, 17, 3, 1)$
79 : $P_{4681} = (8, 17, 3, 1)$

80 : $P_{4708} = (3, 18, 3, 1)$
81 : $P_{4729} = (24, 18, 3, 1)$
82 : $P_{4801} = (0, 21, 3, 1)$
83 : $P_{4814} = (13, 21, 3, 1)$
84 : $P_{4848} = (15, 22, 3, 1)$
85 : $P_{4851} = (18, 22, 3, 1)$
86 : $P_{4910} = (13, 24, 3, 1)$
87 : $P_{4922} = (25, 24, 3, 1)$
88 : $P_{4937} = (8, 25, 3, 1)$
89 : $P_{4944} = (15, 25, 3, 1)$
90 : $P_{5037} = (12, 28, 3, 1)$
91 : $P_{5055} = (30, 28, 3, 1)$
92 : $P_{5079} = (22, 29, 3, 1)$
93 : $P_{5080} = (23, 29, 3, 1)$
94 : $P_{5150} = (29, 31, 3, 1)$
95 : $P_{5152} = (31, 31, 3, 1)$
96 : $P_{5181} = (28, 0, 4, 1)$
97 : $P_{5323} = (10, 5, 4, 1)$
98 : $P_{5327} = (14, 5, 4, 1)$
99 : $P_{5396} = (19, 7, 4, 1)$
100 : $P_{5407} = (30, 7, 4, 1)$
101 : $P_{5433} = (24, 8, 4, 1)$
102 : $P_{5434} = (25, 8, 4, 1)$
103 : $P_{5447} = (6, 9, 4, 1)$
104 : $P_{5458} = (17, 9, 4, 1)$
105 : $P_{5491} = (18, 10, 4, 1)$
106 : $P_{5499} = (26, 10, 4, 1)$
107 : $P_{5519} = (14, 11, 4, 1)$
108 : $P_{5521} = (16, 11, 4, 1)$
109 : $P_{5639} = (6, 15, 4, 1)$
110 : $P_{5643} = (10, 15, 4, 1)$
111 : $P_{5689} = (24, 16, 4, 1)$
112 : $P_{5691} = (26, 16, 4, 1)$
113 : $P_{5710} = (13, 17, 4, 1)$
114 : $P_{5722} = (25, 17, 4, 1)$
115 : $P_{5729} = (0, 18, 4, 1)$
116 : $P_{5740} = (11, 18, 4, 1)$
117 : $P_{5796} = (3, 20, 4, 1)$
118 : $P_{5812} = (19, 20, 4, 1)$
119 : $P_{5892} = (3, 23, 4, 1)$
120 : $P_{5901} = (12, 23, 4, 1)$
121 : $P_{5938} = (17, 24, 4, 1)$
122 : $P_{5939} = (18, 24, 4, 1)$
123 : $P_{5964} = (11, 25, 4, 1)$
124 : $P_{5983} = (30, 25, 4, 1)$
125 : $P_{6029} = (12, 27, 4, 1)$
126 : $P_{6033} = (16, 27, 4, 1)$
127 : $P_{6062} = (13, 28, 4, 1)$
128 : $P_{6077} = (28, 28, 4, 1)$
129 : $P_{6195} = (18, 0, 5, 1)$
130 : $P_{6215} = (6, 1, 5, 1)$
131 : $P_{6223} = (14, 1, 5, 1)$
132 : $P_{6324} = (19, 4, 5, 1)$
133 : $P_{6327} = (22, 4, 5, 1)$
134 : $P_{6379} = (10, 6, 5, 1)$
135 : $P_{6400} = (31, 6, 5, 1)$
136 : $P_{6407} = (6, 7, 5, 1)$
137 : $P_{6428} = (27, 7, 5, 1)$
138 : $P_{6470} = (5, 9, 5, 1)$
139 : $P_{6472} = (7, 9, 5, 1)$
140 : $P_{6566} = (5, 12, 5, 1)$
141 : $P_{6571} = (10, 12, 5, 1)$
142 : $P_{6619} = (26, 13, 5, 1)$
143 : $P_{6622} = (29, 13, 5, 1)$
144 : $P_{6632} = (7, 14, 5, 1)$
145 : $P_{6649} = (24, 14, 5, 1)$
146 : $P_{6671} = (14, 15, 5, 1)$
147 : $P_{6682} = (25, 15, 5, 1)$
148 : $P_{6698} = (9, 16, 5, 1)$
149 : $P_{6718} = (29, 16, 5, 1)$
150 : $P_{6771} = (18, 18, 5, 1)$
151 : $P_{6775} = (22, 18, 5, 1)$
152 : $P_{6905} = (24, 22, 5, 1)$
153 : $P_{6906} = (25, 22, 5, 1)$
154 : $P_{6932} = (19, 23, 5, 1)$
155 : $P_{6939} = (26, 23, 5, 1)$
156 : $P_{6986} = (9, 25, 5, 1)$
157 : $P_{7008} = (31, 25, 5, 1)$
158 : $P_{7073} = (0, 28, 5, 1)$
159 : $P_{7100} = (27, 28, 5, 1)$
160 : $P_{7218} = (17, 0, 6, 1)$
161 : $P_{7237} = (4, 1, 6, 1)$
162 : $P_{7242} = (9, 1, 6, 1)$
163 : $P_{7280} = (15, 2, 6, 1)$
164 : $P_{7286} = (21, 2, 6, 1)$
165 : $P_{7302} = (5, 3, 6, 1)$
166 : $P_{7315} = (18, 3, 6, 1)$
167 : $P_{7365} = (4, 5, 6, 1)$
168 : $P_{7385} = (24, 5, 6, 1)$
169 : $P_{7398} = (5, 6, 6, 1)$
170 : $P_{7407} = (14, 6, 6, 1)$
171 : $P_{7466} = (9, 8, 6, 1)$
172 : $P_{7471} = (14, 8, 6, 1)$
173 : $P_{7505} = (16, 9, 6, 1)$
174 : $P_{7515} = (26, 9, 6, 1)$
175 : $P_{7521} = (0, 10, 6, 1)$
176 : $P_{7550} = (29, 10, 6, 1)$
177 : $P_{7632} = (15, 13, 6, 1)$
178 : $P_{7637} = (20, 13, 6, 1)$
179 : $P_{7716} = (3, 16, 6, 1)$
180 : $P_{7726} = (13, 16, 6, 1)$
181 : $P_{7762} = (17, 17, 6, 1)$
182 : $P_{7763} = (18, 17, 6, 1)$
183 : $P_{7812} = (3, 19, 6, 1)$
184 : $P_{7835} = (26, 19, 6, 1)$
185 : $P_{7958} = (21, 23, 6, 1)$
186 : $P_{7966} = (29, 23, 6, 1)$
187 : $P_{8017} = (16, 25, 6, 1)$

188 : $P_{8021} = (20, 25, 6, 1)$
189 : $P_{8142} = (13, 29, 6, 1)$
190 : $P_{8153} = (24, 29, 6, 1)$
191 : $P_{8235} = (10, 0, 7, 1)$
192 : $P_{8278} = (21, 1, 7, 1)$
193 : $P_{8283} = (26, 1, 7, 1)$
194 : $P_{8334} = (13, 3, 7, 1)$
195 : $P_{8349} = (28, 3, 7, 1)$
196 : $P_{8516} = (3, 9, 7, 1)$
197 : $P_{8540} = (27, 9, 7, 1)$
198 : $P_{8548} = (3, 10, 7, 1)$
199 : $P_{8555} = (10, 10, 7, 1)$
200 : $P_{8632} = (23, 12, 7, 1)$
201 : $P_{8634} = (25, 12, 7, 1)$
202 : $P_{8686} = (13, 14, 7, 1)$
203 : $P_{8702} = (29, 14, 7, 1)$
204 : $P_{8769} = (0, 17, 7, 1)$
205 : $P_{8773} = (4, 17, 7, 1)$
206 : $P_{8815} = (14, 18, 7, 1)$
207 : $P_{8828} = (27, 18, 7, 1)$
208 : $P_{8840} = (7, 19, 7, 1)$
209 : $P_{8862} = (29, 19, 7, 1)$
210 : $P_{8872} = (7, 20, 7, 1)$
211 : $P_{8886} = (21, 20, 7, 1)$
212 : $P_{8901} = (4, 21, 7, 1)$
213 : $P_{8922} = (25, 21, 7, 1)$
214 : $P_{8969} = (8, 23, 7, 1)$
215 : $P_{8972} = (11, 23, 7, 1)$
216 : $P_{9112} = (23, 27, 7, 1)$
217 : $P_{9115} = (26, 27, 7, 1)$
218 : $P_{9132} = (11, 28, 7, 1)$
219 : $P_{9135} = (14, 28, 7, 1)$
220 : $P_{9225} = (8, 31, 7, 1)$
221 : $P_{9245} = (28, 31, 7, 1)$
222 : $P_{9251} = (2, 0, 8, 1)$
223 : $P_{9315} = (2, 2, 8, 1)$
224 : $P_{9321} = (8, 2, 8, 1)$
225 : $P_{9367} = (22, 3, 8, 1)$
226 : $P_{9370} = (25, 3, 8, 1)$
227 : $P_{9424} = (15, 5, 8, 1)$
228 : $P_{9439} = (30, 5, 8, 1)$
229 : $P_{9521} = (16, 8, 8, 1)$
230 : $P_{9534} = (29, 8, 8, 1)$
231 : $P_{9577} = (8, 10, 8, 1)$
232 : $P_{9584} = (15, 10, 8, 1)$
233 : $P_{9625} = (24, 11, 8, 1)$
234 : $P_{9627} = (26, 11, 8, 1)$
235 : $P_{9798} = (5, 17, 8, 1)$
236 : $P_{9819} = (26, 17, 8, 1)$
237 : $P_{9870} = (13, 19, 8, 1)$
238 : $P_{9881} = (24, 19, 8, 1)$
239 : $P_{9894} = (5, 20, 8, 1)$
240 : $P_{9900} = (11, 20, 8, 1)$
241 : $P_{9943} = (22, 21, 8, 1)$
242 : $P_{9950} = (29, 21, 8, 1)$
243 : $P_{10024} = (7, 24, 8, 1)$
244 : $P_{10033} = (16, 24, 8, 1)$
245 : $P_{10085} = (4, 26, 8, 1)$
246 : $P_{10106} = (25, 26, 8, 1)$
247 : $P_{10119} = (6, 27, 8, 1)$
248 : $P_{10143} = (30, 27, 8, 1)$
249 : $P_{10177} = (0, 29, 8, 1)$
250 : $P_{10183} = (6, 29, 8, 1)$
251 : $P_{10213} = (4, 30, 8, 1)$
252 : $P_{10222} = (13, 30, 8, 1)$
253 : $P_{10248} = (7, 31, 8, 1)$
254 : $P_{10252} = (11, 31, 8, 1)$
255 : $P_{10302} = (29, 0, 9, 1)$
256 : $P_{10337} = (0, 2, 9, 1)$
257 : $P_{10348} = (11, 2, 9, 1)$
258 : $P_{10415} = (14, 4, 9, 1)$
259 : $P_{10425} = (24, 4, 9, 1)$
260 : $P_{10477} = (12, 6, 9, 1)$
261 : $P_{10482} = (17, 6, 9, 1)$
262 : $P_{10572} = (11, 9, 9, 1)$
263 : $P_{10582} = (21, 9, 9, 1)$
264 : $P_{10605} = (12, 10, 9, 1)$
265 : $P_{10607} = (14, 10, 9, 1)$
266 : $P_{10712} = (23, 13, 9, 1)$
267 : $P_{10720} = (31, 13, 9, 1)$
268 : $P_{10827} = (10, 17, 9, 1)$
269 : $P_{10832} = (15, 17, 9, 1)$
270 : $P_{10855} = (6, 18, 9, 1)$
271 : $P_{10880} = (31, 18, 9, 1)$
272 : $P_{10915} = (2, 20, 9, 1)$
273 : $P_{10919} = (6, 20, 9, 1)$
274 : $P_{10979} = (2, 22, 9, 1)$
275 : $P_{10990} = (13, 22, 9, 1)$
276 : $P_{11018} = (9, 23, 9, 1)$
277 : $P_{11026} = (17, 23, 9, 1)$
278 : $P_{11112} = (7, 26, 9, 1)$
279 : $P_{11128} = (23, 26, 9, 1)$
280 : $P_{11147} = (10, 27, 9, 1)$
281 : $P_{11150} = (13, 27, 9, 1)$
282 : $P_{11190} = (21, 28, 9, 1)$
283 : $P_{11193} = (24, 28, 9, 1)$
284 : $P_{11208} = (7, 29, 9, 1)$
285 : $P_{11230} = (29, 29, 9, 1)$
286 : $P_{11242} = (9, 30, 9, 1)$
287 : $P_{11248} = (15, 30, 9, 1)$
288 : $P_{11301} = (4, 0, 10, 1)$
289 : $P_{11380} = (19, 2, 10, 1)$
290 : $P_{11381} = (20, 2, 10, 1)$
291 : $P_{11399} = (6, 3, 10, 1)$
292 : $P_{11409} = (16, 3, 10, 1)$
293 : $P_{11429} = (4, 4, 10, 1)$
294 : $P_{11435} = (10, 4, 10, 1)$
295 : $P_{11463} = (6, 5, 10, 1)$

296 : $P_{11482} = (25, 5, 10, 1)$
297 : $P_{11534} = (13, 7, 10, 1)$
298 : $P_{11542} = (21, 7, 10, 1)$
299 : $P_{11560} = (7, 8, 10, 1)$
300 : $P_{11580} = (27, 8, 10, 1)$
301 : $P_{11630} = (13, 10, 10, 1)$
302 : $P_{11639} = (22, 10, 10, 1)$
303 : $P_{11684} = (3, 12, 10, 1)$
304 : $P_{11698} = (17, 12, 10, 1)$
305 : $P_{11755} = (10, 14, 10, 1)$
306 : $P_{11776} = (31, 14, 10, 1)$
307 : $P_{11780} = (3, 15, 10, 1)$
308 : $P_{11784} = (7, 15, 10, 1)$
309 : $P_{11860} = (19, 17, 10, 1)$
310 : $P_{11872} = (31, 17, 10, 1)$
311 : $P_{11888} = (15, 18, 10, 1)$
312 : $P_{11894} = (21, 18, 10, 1)$
313 : $P_{11921} = (16, 19, 10, 1)$
314 : $P_{11932} = (27, 19, 10, 1)$
315 : $P_{12001} = (0, 22, 10, 1)$
316 : $P_{12021} = (20, 22, 10, 1)$
317 : $P_{12215} = (22, 28, 10, 1)$
318 : $P_{12218} = (25, 28, 10, 1)$
319 : $P_{12240} = (15, 29, 10, 1)$
320 : $P_{12242} = (17, 29, 10, 1)$
321 : $P_{12343} = (22, 0, 11, 1)$
322 : $P_{12399} = (14, 2, 11, 1)$
323 : $P_{12412} = (27, 2, 11, 1)$
324 : $P_{12438} = (21, 3, 11, 1)$
325 : $P_{12441} = (24, 3, 11, 1)$
326 : $P_{12449} = (0, 4, 11, 1)$
327 : $P_{12464} = (15, 4, 11, 1)$
328 : $P_{12627} = (18, 9, 11, 1)$
329 : $P_{12629} = (20, 9, 11, 1)$
330 : $P_{12688} = (15, 11, 11, 1)$
331 : $P_{12701} = (28, 11, 11, 1)$
332 : $P_{12719} = (14, 12, 11, 1)$
333 : $P_{12736} = (31, 12, 11, 1)$
334 : $P_{12795} = (26, 14, 11, 1)$
335 : $P_{12799} = (30, 14, 11, 1)$
336 : $P_{12840} = (7, 16, 11, 1)$
337 : $P_{12863} = (30, 16, 11, 1)$
338 : $P_{12940} = (11, 19, 11, 1)$
339 : $P_{12960} = (31, 19, 11, 1)$
340 : $P_{12973} = (12, 20, 11, 1)$
341 : $P_{12987} = (26, 20, 11, 1)$
342 : $P_{13046} = (21, 22, 11, 1)$
343 : $P_{13047} = (22, 22, 11, 1)$
344 : $P_{13064} = (7, 23, 11, 1)$
345 : $P_{13085} = (28, 23, 11, 1)$
346 : $P_{13100} = (11, 24, 11, 1)$
347 : $P_{13101} = (12, 24, 11, 1)$
348 : $P_{13125} = (4, 25, 11, 1)$
349 : $P_{13148} = (27, 25, 11, 1)$
350 : $P_{13203} = (18, 27, 11, 1)$
351 : $P_{13209} = (24, 27, 11, 1)$
352 : $P_{13253} = (4, 29, 11, 1)$
353 : $P_{13269} = (20, 29, 11, 1)$
354 : $P_{13356} = (11, 0, 12, 1)$
355 : $P_{13396} = (19, 1, 12, 1)$
356 : $P_{13406} = (29, 1, 12, 1)$
357 : $P_{13414} = (5, 2, 12, 1)$
358 : $P_{13434} = (25, 2, 12, 1)$
359 : $P_{13453} = (12, 3, 12, 1)$
360 : $P_{13471} = (30, 3, 12, 1)$
361 : $P_{13557} = (20, 6, 12, 1)$
362 : $P_{13558} = (21, 6, 12, 1)$
363 : $P_{13574} = (5, 7, 12, 1)$
364 : $P_{13579} = (10, 7, 12, 1)$
365 : $P_{13703} = (6, 11, 12, 1)$
366 : $P_{13708} = (11, 11, 12, 1)$
367 : $P_{13767} = (6, 13, 12, 1)$
368 : $P_{13771} = (10, 13, 12, 1)$
369 : $P_{13837} = (12, 15, 12, 1)$
370 : $P_{13853} = (28, 15, 12, 1)$
371 : $P_{13940} = (19, 18, 12, 1)$
372 : $P_{13941} = (20, 18, 12, 1)$
373 : $P_{13974} = (21, 19, 12, 1)$
374 : $P_{13981} = (28, 19, 12, 1)$
375 : $P_{13994} = (9, 20, 12, 1)$
376 : $P_{14000} = (15, 20, 12, 1)$
377 : $P_{14113} = (0, 24, 12, 1)$
378 : $P_{14117} = (4, 24, 12, 1)$
379 : $P_{14224} = (15, 27, 12, 1)$
380 : $P_{14234} = (25, 27, 12, 1)$
381 : $P_{14245} = (4, 28, 12, 1)$
382 : $P_{14270} = (29, 28, 12, 1)$
383 : $P_{14282} = (9, 29, 12, 1)$
384 : $P_{14303} = (30, 29, 12, 1)$
385 : $P_{14393} = (24, 0, 13, 1)$
386 : $P_{14500} = (3, 4, 13, 1)$
387 : $P_{14524} = (27, 4, 13, 1)$
388 : $P_{14596} = (3, 7, 13, 1)$
389 : $P_{14610} = (17, 7, 13, 1)$
390 : $P_{14721} = (0, 11, 13, 1)$
391 : $P_{14752} = (31, 11, 13, 1)$
392 : $P_{14772} = (19, 12, 13, 1)$
393 : $P_{14783} = (30, 12, 13, 1)$
394 : $P_{14837} = (20, 14, 13, 1)$
395 : $P_{14838} = (21, 14, 13, 1)$
396 : $P_{14875} = (26, 15, 13, 1)$
397 : $P_{14878} = (29, 15, 13, 1)$
398 : $P_{14974} = (29, 18, 13, 1)$
399 : $P_{14975} = (30, 18, 13, 1)$
400 : $P_{15017} = (8, 20, 13, 1)$
401 : $P_{15040} = (31, 20, 13, 1)$
402 : $P_{15052} = (11, 21, 13, 1)$
403 : $P_{15067} = (26, 21, 13, 1)$

$404: P_{15083} = (10, 22, 13, 1)$
$405: P_{15090} = (17, 22, 13, 1)$
$406: P_{15139} = (2, 24, 13, 1)$
$407: P_{15161} = (24, 24, 13, 1)$
$408: P_{15203} = (2, 26, 13, 1)$
$409: P_{15221} = (20, 26, 13, 1)$
$410: P_{15238} = (5, 27, 13, 1)$
$411: P_{15254} = (21, 27, 13, 1)$
$412: P_{15273} = (8, 28, 13, 1)$
$413: P_{15275} = (10, 28, 13, 1)$
$414: P_{15334} = (5, 30, 13, 1)$
$415: P_{15340} = (11, 30, 13, 1)$
$416: P_{15380} = (19, 31, 13, 1)$
$417: P_{15388} = (27, 31, 13, 1)$
$418: P_{15409} = (16, 0, 14, 1)$
$419: P_{15529} = (8, 4, 14, 1)$
$420: P_{15550} = (29, 4, 14, 1)$
$421: P_{15566} = (13, 5, 14, 1)$
$422: P_{15573} = (20, 5, 14, 1)$
$423: P_{15651} = (2, 8, 14, 1)$
$424: P_{15662} = (13, 8, 14, 1)$
$425: P_{15709} = (28, 9, 14, 1)$
$426: P_{15712} = (31, 9, 14, 1)$
$427: P_{15715} = (2, 10, 14, 1)$
$428: P_{15734} = (21, 10, 14, 1)$
$429: P_{15785} = (8, 12, 14, 1)$
$430: P_{15795} = (18, 12, 14, 1)$
$431: P_{15866} = (25, 14, 14, 1)$
$432: P_{15868} = (27, 14, 14, 1)$
$433: P_{15919} = (14, 16, 14, 1)$
$434: P_{15921} = (16, 16, 14, 1)$
$435: P_{15943} = (6, 17, 14, 1)$
$436: P_{15957} = (20, 17, 14, 1)$
$437: P_{16092} = (27, 21, 14, 1)$
$438: P_{16093} = (28, 21, 14, 1)$
$439: P_{16109} = (12, 22, 14, 1)$
$440: P_{16128} = (31, 22, 14, 1)$
$441: P_{16135} = (6, 23, 14, 1)$
$442: P_{16154} = (25, 23, 14, 1)$
$443: P_{16193} = (0, 25, 14, 1)$
$444: P_{16222} = (29, 25, 14, 1)$
$445: P_{16230} = (5, 26, 14, 1)$
$446: P_{16237} = (12, 26, 14, 1)$
$447: P_{16367} = (14, 30, 14, 1)$
$448: P_{16371} = (18, 30, 14, 1)$
$449: P_{16390} = (5, 31, 14, 1)$
$450: P_{16406} = (21, 31, 14, 1)$
$451: P_{16442} = (25, 0, 15, 1)$
$452: P_{16488} = (7, 2, 15, 1)$
$453: P_{16490} = (9, 2, 15, 1)$
$454: P_{16547} = (2, 4, 15, 1)$
$455: P_{16575} = (30, 4, 15, 1)$
$456: P_{16584} = (7, 5, 15, 1)$
$457: P_{16605} = (28, 5, 15, 1)$
$458: P_{16611} = (2, 6, 15, 1)$
$459: P_{16625} = (16, 6, 15, 1)$
$460: P_{16656} = (15, 7, 15, 1)$
$461: P_{16667} = (26, 7, 15, 1)$
$462: P_{16688} = (15, 8, 15, 1)$
$463: P_{16691} = (18, 8, 15, 1)$
$464: P_{16778} = (9, 11, 15, 1)$
$465: P_{16798} = (29, 11, 15, 1)$
$466: P_{16852} = (19, 13, 15, 1)$
$467: P_{16854} = (21, 13, 15, 1)$
$468: P_{16920} = (23, 15, 15, 1)$
$469: P_{16928} = (31, 15, 15, 1)$
$470: P_{16929} = (0, 16, 15, 1)$
$471: P_{16960} = (31, 16, 15, 1)$
$472: P_{17137} = (16, 22, 15, 1)$
$473: P_{17150} = (29, 22, 15, 1)$
$474: P_{17206} = (21, 24, 15, 1)$
$475: P_{17208} = (23, 24, 15, 1)$
$476: P_{17242} = (25, 25, 15, 1)$
$477: P_{17245} = (28, 25, 15, 1)$
$478: P_{17267} = (18, 26, 15, 1)$
$479: P_{17279} = (30, 26, 15, 1)$
$480: P_{17348} = (3, 29, 15, 1)$
$481: P_{17371} = (26, 29, 15, 1)$
$482: P_{17380} = (3, 30, 15, 1)$
$483: P_{17396} = (19, 30, 15, 1)$
$484: P_{17464} = (23, 0, 16, 1)$
$485: P_{17518} = (13, 2, 16, 1)$
$486: P_{17531} = (26, 2, 16, 1)$
$487: P_{17648} = (15, 6, 16, 1)$
$488: P_{17652} = (19, 6, 16, 1)$
$489: P_{17674} = (9, 7, 16, 1)$
$490: P_{17677} = (12, 7, 16, 1)$
$491: P_{17729} = (0, 9, 16, 1)$
$492: P_{17744} = (15, 9, 16, 1)$
$493: P_{17767} = (6, 10, 16, 1)$
$494: P_{17768} = (7, 10, 16, 1)$
$495: P_{17805} = (12, 11, 16, 1)$
$496: P_{17813} = (20, 11, 16, 1)$
$497: P_{17831} = (6, 12, 16, 1)$
$498: P_{17852} = (27, 12, 16, 1)$
$499: P_{17860} = (3, 13, 16, 1)$
$500: P_{17864} = (7, 13, 16, 1)$
$501: P_{17892} = (3, 14, 16, 1)$
$502: P_{17898} = (9, 14, 16, 1)$
$503: P_{17934} = (13, 15, 16, 1)$
$504: P_{17951} = (30, 15, 16, 1)$
$505: P_{17999} = (14, 17, 16, 1)$
$506: P_{18015} = (30, 17, 16, 1)$
$507: P_{18121} = (8, 21, 16, 1)$
$508: P_{18132} = (19, 21, 16, 1)$
$509: P_{18200} = (23, 23, 16, 1)$
$510: P_{18204} = (27, 23, 16, 1)$
$511: P_{18214} = (5, 24, 16, 1)$

$512: P_{18235} = (26, 24, 16, 1)$
$513: P_{18374} = (5, 29, 16, 1)$
$514: P_{18377} = (8, 29, 16, 1)$
$515: P_{18447} = (14, 31, 16, 1)$
$516: P_{18453} = (20, 31, 16, 1)$
$517: P_{18474} = (9, 0, 17, 1)$
$518: P_{18517} = (20, 1, 17, 1)$
$519: P_{18527} = (30, 1, 17, 1)$
$520: P_{18668} = (11, 6, 17, 1)$
$521: P_{18675} = (18, 6, 17, 1)$
$522: P_{18762} = (9, 9, 17, 1)$
$523: P_{18778} = (25, 9, 17, 1)$
$524: P_{18834} = (17, 11, 17, 1)$
$525: P_{18838} = (21, 11, 17, 1)$
$526: P_{18892} = (11, 13, 17, 1)$
$527: P_{18903} = (22, 13, 17, 1)$
$528: P_{18985} = (8, 16, 17, 1)$
$529: P_{19002} = (25, 16, 17, 1)$
$530: P_{19119} = (14, 20, 17, 1)$
$531: P_{19123} = (18, 20, 17, 1)$
$532: P_{19139} = (2, 21, 17, 1)$
$533: P_{19157} = (20, 21, 17, 1)$
$534: P_{19201} = (0, 23, 17, 1)$
$535: P_{19203} = (2, 23, 17, 1)$
$536: P_{19236} = (3, 24, 17, 1)$
$537: P_{19241} = (8, 24, 17, 1)$
$538: P_{19271} = (6, 25, 17, 1)$
$539: P_{19272} = (7, 25, 17, 1)$
$540: P_{19311} = (14, 26, 17, 1)$
$541: P_{19314} = (17, 26, 17, 1)$
$542: P_{19332} = (3, 27, 17, 1)$
$543: P_{19351} = (22, 27, 17, 1)$
$544: P_{19432} = (7, 30, 17, 1)$
$545: P_{19446} = (21, 30, 17, 1)$
$546: P_{19463} = (6, 31, 17, 1)$
$547: P_{19487} = (30, 31, 17, 1)$
$548: P_{19509} = (20, 0, 18, 1)$
$549: P_{19563} = (10, 2, 18, 1)$
$550: P_{19576} = (23, 2, 18, 1)$
$551: P_{19657} = (8, 5, 18, 1)$
$552: P_{19660} = (11, 5, 18, 1)$
$553: P_{19706} = (25, 6, 18, 1)$
$554: P_{19708} = (27, 6, 18, 1)$
$555: P_{19755} = (10, 8, 18, 1)$
$556: P_{19762} = (17, 8, 18, 1)$
$557: P_{19897} = (24, 12, 18, 1)$
$558: P_{19901} = (28, 12, 18, 1)$
$559: P_{19913} = (8, 13, 18, 1)$
$560: P_{19921} = (16, 13, 18, 1)$
$561: P_{19948} = (11, 14, 18, 1)$
$562: P_{19955} = (18, 14, 18, 1)$
$563: P_{20016} = (15, 16, 18, 1)$
$564: P_{20029} = (28, 16, 18, 1)$
$565: P_{20072} = (7, 18, 18, 1)$
$566: P_{20074} = (9, 18, 18, 1)$
$567: P_{20149} = (20, 20, 18, 1)$
$568: P_{20153} = (24, 20, 18, 1)$
$569: P_{20168} = (7, 21, 18, 1)$
$570: P_{20184} = (23, 21, 18, 1)$
$571: P_{20294} = (5, 25, 18, 1)$
$572: P_{20306} = (17, 25, 18, 1)$
$573: P_{20353} = (0, 27, 18, 1)$
$574: P_{20362} = (9, 27, 18, 1)$
$575: P_{20390} = (5, 28, 18, 1)$
$576: P_{20403} = (18, 28, 18, 1)$
$577: P_{20433} = (16, 29, 18, 1)$
$578: P_{20444} = (27, 29, 18, 1)$
$579: P_{20496} = (15, 31, 18, 1)$
$580: P_{20506} = (25, 31, 18, 1)$
$581: P_{20540} = (27, 0, 19, 1)$
$582: P_{20620} = (11, 3, 19, 1)$
$583: P_{20623} = (14, 3, 19, 1)$
$584: P_{20676} = (3, 5, 19, 1)$
$585: P_{20685} = (12, 5, 19, 1)$
$586: P_{20708} = (3, 6, 19, 1)$
$587: P_{20714} = (9, 6, 19, 1)$
$588: P_{20757} = (20, 7, 19, 1)$
$589: P_{20766} = (29, 7, 19, 1)$
$590: P_{20780} = (11, 8, 19, 1)$
$591: P_{20788} = (19, 8, 19, 1)$
$592: P_{20813} = (12, 9, 19, 1)$
$593: P_{20824} = (23, 9, 19, 1)$
$594: P_{20899} = (2, 12, 19, 1)$
$595: P_{20919} = (22, 12, 19, 1)$
$596: P_{20943} = (14, 13, 19, 1)$
$597: P_{20954} = (25, 13, 19, 1)$
$598: P_{20963} = (2, 14, 19, 1)$
$599: P_{20977} = (16, 14, 19, 1)$
$600: P_{21002} = (9, 15, 19, 1)$
$601: P_{21017} = (24, 15, 19, 1)$
$602: P_{21125} = (4, 19, 19, 1)$
$603: P_{21141} = (20, 19, 19, 1)$
$604: P_{21153} = (0, 20, 19, 1)$
$605: P_{21178} = (25, 20, 19, 1)$
$606: P_{21253} = (4, 23, 19, 1)$
$607: P_{21273} = (24, 23, 19, 1)$
$608: P_{21367} = (22, 26, 19, 1)$
$609: P_{21374} = (29, 26, 19, 1)$
$610: P_{21396} = (19, 27, 19, 1)$
$611: P_{21404} = (27, 27, 19, 1)$
$612: P_{21489} = (16, 30, 19, 1)$
$613: P_{21496} = (23, 30, 19, 1)$
$614: P_{21549} = (12, 0, 20, 1)$
$615: P_{21580} = (11, 1, 20, 1)$
$616: P_{21585} = (16, 1, 20, 1)$
$617: P_{21693} = (28, 4, 20, 1)$
$618: P_{21696} = (31, 4, 20, 1)$
$619: P_{21706} = (9, 5, 20, 1)$

620 : $P_{21714} = (17, 5, 20, 1)$
621 : $P_{21742} = (13, 6, 20, 1)$
622 : $P_{21758} = (29, 6, 20, 1)$
623 : $P_{21796} = (3, 8, 20, 1)$
624 : $P_{21798} = (5, 8, 20, 1)$
625 : $P_{21868} = (11, 10, 20, 1)$
626 : $P_{21887} = (30, 10, 20, 1)$
627 : $P_{21892} = (3, 11, 20, 1)$
628 : $P_{21902} = (13, 11, 20, 1)$
629 : $P_{21930} = (9, 12, 20, 1)$
630 : $P_{21933} = (12, 12, 20, 1)$
631 : $P_{21958} = (5, 13, 20, 1)$
632 : $P_{21980} = (27, 13, 20, 1)$
633 : $P_{21985} = (0, 14, 20, 1)$
634 : $P_{22007} = (22, 14, 20, 1)$
635 : $P_{22088} = (7, 17, 20, 1)$
636 : $P_{22097} = (16, 17, 20, 1)$
637 : $P_{22194} = (17, 20, 20, 1)$
638 : $P_{22207} = (30, 20, 20, 1)$
639 : $P_{22248} = (7, 22, 20, 1)$
640 : $P_{22268} = (27, 22, 20, 1)$
641 : $P_{22327} = (22, 24, 20, 1)$
642 : $P_{22333} = (28, 24, 20, 1)$
643 : $P_{22430} = (29, 27, 20, 1)$
644 : $P_{22432} = (31, 27, 20, 1)$
645 : $P_{22575} = (14, 0, 21, 1)$
646 : $P_{22596} = (3, 1, 21, 1)$
647 : $P_{22621} = (28, 1, 21, 1)$
648 : $P_{22628} = (3, 2, 21, 1)$
649 : $P_{22649} = (24, 2, 21, 1)$
650 : $P_{22744} = (23, 5, 21, 1)$
651 : $P_{22748} = (27, 5, 21, 1)$
652 : $P_{22838} = (21, 8, 21, 1)$
653 : $P_{22839} = (22, 8, 21, 1)$
654 : $P_{22851} = (2, 9, 21, 1)$
655 : $P_{22879} = (30, 9, 21, 1)$
656 : $P_{22915} = (2, 11, 21, 1)$
657 : $P_{22918} = (5, 11, 21, 1)$
658 : $P_{22945} = (0, 12, 21, 1)$
659 : $P_{22961} = (16, 12, 21, 1)$
660 : $P_{23014} = (5, 14, 21, 1)$
661 : $P_{23023} = (14, 14, 21, 1)$
662 : $P_{23147} = (10, 18, 21, 1)$
663 : $P_{23160} = (23, 18, 21, 1)$
664 : $P_{23312} = (15, 23, 21, 1)$
665 : $P_{23327} = (30, 23, 21, 1)$
666 : $P_{23339} = (10, 24, 21, 1)$
667 : $P_{23344} = (15, 24, 21, 1)$
668 : $P_{23399} = (6, 26, 21, 1)$
669 : $P_{23417} = (24, 26, 21, 1)$
670 : $P_{23463} = (6, 28, 21, 1)$
671 : $P_{23473} = (16, 28, 21, 1)$
672 : $P_{23510} = (21, 29, 21, 1)$
673 : $P_{23517} = (28, 29, 21, 1)$
674 : $P_{23543} = (22, 30, 21, 1)$
675 : $P_{23548} = (27, 30, 21, 1)$
676 : $P_{23588} = (3, 0, 22, 1)$
677 : $P_{23644} = (27, 1, 22, 1)$
678 : $P_{23648} = (31, 1, 22, 1)$
679 : $P_{23653} = (4, 2, 22, 1)$
680 : $P_{23661} = (12, 2, 22, 1)$
681 : $P_{23684} = (3, 3, 22, 1)$
682 : $P_{23696} = (15, 3, 22, 1)$
683 : $P_{23722} = (9, 4, 22, 1)$
684 : $P_{23738} = (25, 4, 22, 1)$
685 : $P_{23781} = (4, 6, 22, 1)$
686 : $P_{23805} = (28, 6, 22, 1)$
687 : $P_{23984} = (15, 12, 22, 1)$
688 : $P_{23995} = (26, 12, 22, 1)$
689 : $P_{24010} = (9, 13, 22, 1)$
690 : $P_{24025} = (24, 13, 22, 1)$
691 : $P_{24045} = (12, 14, 22, 1)$
692 : $P_{24050} = (17, 14, 22, 1)$
693 : $P_{24193} = (0, 19, 22, 1)$
694 : $P_{24199} = (6, 19, 22, 1)$
695 : $P_{24263} = (6, 21, 22, 1)$
696 : $P_{24281} = (24, 21, 22, 1)$
697 : $P_{24297} = (8, 22, 22, 1)$
698 : $P_{24315} = (26, 22, 22, 1)$
699 : $P_{24444} = (27, 26, 22, 1)$
700 : $P_{24445} = (28, 26, 22, 1)$
701 : $P_{24515} = (2, 29, 22, 1)$
702 : $P_{24538} = (25, 29, 22, 1)$
703 : $P_{24553} = (8, 30, 22, 1)$
704 : $P_{24576} = (31, 30, 22, 1)$
705 : $P_{24579} = (2, 31, 22, 1)$
706 : $P_{24594} = (17, 31, 22, 1)$
707 : $P_{24628} = (19, 0, 23, 1)$
708 : $P_{24658} = (17, 1, 23, 1)$
709 : $P_{24665} = (24, 1, 23, 1)$
710 : $P_{24705} = (0, 3, 23, 1)$
711 : $P_{24732} = (27, 3, 23, 1)$
712 : $P_{24790} = (21, 5, 23, 1)$
713 : $P_{24798} = (29, 5, 23, 1)$
714 : $P_{24841} = (8, 7, 23, 1)$
715 : $P_{24851} = (18, 7, 23, 1)$
716 : $P_{24869} = (4, 8, 23, 1)$
717 : $P_{24871} = (6, 8, 23, 1)$
718 : $P_{24968} = (7, 11, 23, 1)$
719 : $P_{24991} = (30, 11, 23, 1)$
720 : $P_{24997} = (4, 12, 23, 1)$
721 : $P_{25000} = (7, 12, 23, 1)$
722 : $P_{25063} = (6, 14, 23, 1)$
723 : $P_{25080} = (23, 14, 23, 1)$
724 : $P_{25097} = (8, 15, 23, 1)$
725 : $P_{25105} = (16, 15, 23, 1)$
726 : $P_{25138} = (17, 16, 23, 1)$
727 : $P_{25142} = (21, 16, 23, 1)$

728 : $P_{25229} = (12, 19, 23, 1)$
729 : $P_{25236} = (19, 19, 23, 1)$
730 : $P_{25299} = (18, 21, 23, 1)$
731 : $P_{25311} = (30, 21, 23, 1)$
732 : $P_{25404} = (27, 24, 23, 1)$
733 : $P_{25406} = (29, 24, 23, 1)$
734 : $P_{25432} = (23, 25, 23, 1)$
735 : $P_{25433} = (24, 25, 23, 1)$
736 : $P_{25613} = (12, 31, 23, 1)$
737 : $P_{25617} = (16, 31, 23, 1)$
738 : $P_{25641} = (8, 0, 24, 1)$
739 : $P_{25672} = (7, 1, 24, 1)$
740 : $P_{25677} = (12, 1, 24, 1)$
741 : $P_{25793} = (0, 5, 24, 1)$
742 : $P_{25795} = (2, 5, 24, 1)$
743 : $P_{25832} = (7, 6, 24, 1)$
744 : $P_{25849} = (24, 6, 24, 1)$
745 : $P_{25859} = (2, 7, 24, 1)$
746 : $P_{25879} = (22, 7, 24, 1)$
747 : $P_{25897} = (8, 8, 24, 1)$
748 : $P_{25915} = (26, 8, 24, 1)$
749 : $P_{25969} = (16, 10, 24, 1)$
750 : $P_{25973} = (20, 10, 24, 1)$
751 : $P_{26061} = (12, 13, 24, 1)$
752 : $P_{26077} = (28, 13, 24, 1)$
753 : $P_{26132} = (19, 15, 24, 1)$
754 : $P_{26134} = (21, 15, 24, 1)$
755 : $P_{26199} = (22, 17, 24, 1)$
756 : $P_{26205} = (28, 17, 24, 1)$
757 : $P_{26222} = (13, 18, 24, 1)$
758 : $P_{26235} = (26, 18, 24, 1)$
759 : $P_{26314} = (9, 21, 24, 1)$
760 : $P_{26315} = (10, 21, 24, 1)$
761 : $P_{26481} = (16, 26, 24, 1)$
762 : $P_{26486} = (21, 26, 24, 1)$
763 : $P_{26538} = (9, 28, 24, 1)$
764 : $P_{26548} = (19, 28, 24, 1)$
765 : $P_{26613} = (20, 30, 24, 1)$
766 : $P_{26617} = (24, 30, 24, 1)$
767 : $P_{26635} = (10, 31, 24, 1)$
768 : $P_{26638} = (13, 31, 24, 1)$
769 : $P_{26662} = (5, 0, 25, 1)$
770 : $P_{26691} = (2, 1, 25, 1)$
771 : $P_{26707} = (18, 1, 25, 1)$
772 : $P_{26755} = (2, 3, 25, 1)$
773 : $P_{26776} = (23, 3, 25, 1)$
774 : $P_{26801} = (16, 4, 25, 1)$
775 : $P_{26811} = (26, 4, 25, 1)$
776 : $P_{26822} = (5, 5, 25, 1)$
777 : $P_{26848} = (31, 5, 25, 1)$
778 : $P_{26913} = (0, 8, 25, 1)$
779 : $P_{26933} = (20, 8, 25, 1)$
780 : $P_{27175} = (6, 16, 25, 1)$
781 : $P_{27180} = (11, 16, 25, 1)$
782 : $P_{27237} = (4, 18, 25, 1)$
783 : $P_{27245} = (12, 18, 25, 1)$
784 : $P_{27275} = (10, 19, 25, 1)$
785 : $P_{27283} = (18, 19, 25, 1)$
786 : $P_{27313} = (16, 20, 25, 1)$
787 : $P_{27320} = (23, 20, 25, 1)$
788 : $P_{27365} = (4, 22, 25, 1)$
789 : $P_{27367} = (6, 22, 25, 1)$
790 : $P_{27460} = (3, 25, 25, 1)$
791 : $P_{27467} = (10, 25, 25, 1)$
792 : $P_{27492} = (3, 26, 25, 1)$
793 : $P_{27520} = (31, 26, 25, 1)$
794 : $P_{27528} = (7, 27, 25, 1)$
795 : $P_{27532} = (11, 27, 25, 1)$
796 : $P_{27560} = (7, 28, 25, 1)$
797 : $P_{27573} = (20, 28, 25, 1)$
798 : $P_{27629} = (12, 30, 25, 1)$
799 : $P_{27643} = (26, 30, 25, 1)$
800 : $P_{27696} = (15, 0, 26, 1)$
801 : $P_{27721} = (8, 1, 26, 1)$
802 : $P_{27735} = (22, 1, 26, 1)$
803 : $P_{27751} = (6, 2, 26, 1)$
804 : $P_{27776} = (31, 2, 26, 1)$
805 : $P_{27815} = (6, 4, 26, 1)$
806 : $P_{27826} = (17, 4, 26, 1)$
807 : $P_{27860} = (19, 5, 26, 1)$
808 : $P_{27867} = (26, 5, 26, 1)$
809 : $P_{27905} = (0, 7, 26, 1)$
810 : $P_{27921} = (16, 7, 26, 1)$
811 : $P_{27960} = (23, 8, 26, 1)$
812 : $P_{27965} = (28, 8, 26, 1)$
813 : $P_{27977} = (8, 9, 26, 1)$
814 : $P_{27998} = (29, 9, 26, 1)$
815 : $P_{28176} = (15, 15, 26, 1)$
816 : $P_{28181} = (20, 15, 26, 1)$
817 : $P_{28349} = (28, 20, 26, 1)$
818 : $P_{28350} = (29, 20, 26, 1)$
819 : $P_{28367} = (14, 21, 26, 1)$
820 : $P_{28370} = (17, 21, 26, 1)$
821 : $P_{28396} = (11, 22, 26, 1)$
822 : $P_{28404} = (19, 22, 26, 1)$
823 : $P_{28433} = (16, 23, 26, 1)$
824 : $P_{28439} = (22, 23, 26, 1)$
825 : $P_{28559} = (14, 27, 26, 1)$
826 : $P_{28565} = (20, 27, 26, 1)$
827 : $P_{28620} = (11, 29, 26, 1)$
828 : $P_{28640} = (31, 29, 26, 1)$
829 : $P_{28696} = (23, 31, 26, 1)$
830 : $P_{28699} = (26, 31, 26, 1)$
831 : $P_{28712} = (7, 0, 27, 1)$
832 : $P_{28786} = (17, 2, 27, 1)$
833 : $P_{28797} = (28, 2, 27, 1)$
834 : $P_{28805} = (4, 3, 27, 1)$
835 : $P_{28830} = (29, 3, 27, 1)$

836 : $P_{28933} = (4, 7, 27, 1)$
837 : $P_{28936} = (7, 7, 27, 1)$
838 : $P_{29012} = (19, 9, 27, 1)$
839 : $P_{29015} = (22, 9, 27, 1)$
840 : $P_{29185} = (0, 15, 27, 1)$
841 : $P_{29203} = (18, 15, 27, 1)$
842 : $P_{29219} = (2, 16, 27, 1)$
843 : $P_{29222} = (5, 16, 27, 1)$
844 : $P_{29283} = (2, 18, 27, 1)$
845 : $P_{29289} = (8, 18, 27, 1)$
846 : $P_{29328} = (15, 19, 27, 1)$
847 : $P_{29330} = (17, 19, 27, 1)$
848 : $P_{29382} = (5, 21, 27, 1)$
849 : $P_{29389} = (12, 21, 27, 1)$
850 : $P_{29451} = (10, 23, 27, 1)$
851 : $P_{29455} = (14, 23, 27, 1)$
852 : $P_{29517} = (12, 25, 27, 1)$
853 : $P_{29519} = (14, 25, 27, 1)$
854 : $P_{29545} = (8, 26, 27, 1)$
855 : $P_{29556} = (19, 26, 27, 1)$
856 : $P_{29604} = (3, 28, 27, 1)$
857 : $P_{29616} = (15, 28, 27, 1)$
858 : $P_{29643} = (10, 29, 27, 1)$
859 : $P_{29651} = (18, 29, 27, 1)$
860 : $P_{29693} = (28, 30, 27, 1)$
861 : $P_{29694} = (29, 30, 27, 1)$
862 : $P_{29700} = (3, 31, 27, 1)$
863 : $P_{29719} = (22, 31, 27, 1)$
864 : $P_{29759} = (30, 0, 28, 1)$
865 : $P_{29766} = (5, 1, 28, 1)$
866 : $P_{29784} = (23, 1, 28, 1)$
867 : $P_{29832} = (7, 3, 28, 1)$
868 : $P_{29845} = (20, 3, 28, 1)$
869 : $P_{29862} = (5, 4, 28, 1)$
870 : $P_{29864} = (7, 4, 28, 1)$
871 : $P_{29967} = (14, 7, 28, 1)$
872 : $P_{29984} = (31, 7, 28, 1)$
873 : $P_{30031} = (14, 9, 28, 1)$
874 : $P_{30041} = (24, 9, 28, 1)$
875 : $P_{30074} = (25, 10, 28, 1)$
876 : $P_{30077} = (28, 10, 28, 1)$
877 : $P_{30085} = (4, 11, 28, 1)$
878 : $P_{30100} = (19, 11, 28, 1)$
879 : $P_{30213} = (4, 15, 28, 1)$
880 : $P_{30226} = (17, 15, 28, 1)$
881 : $P_{30275} = (2, 17, 28, 1)$
882 : $P_{30297} = (24, 17, 28, 1)$
883 : $P_{30339} = (2, 19, 28, 1)$
884 : $P_{30362} = (25, 19, 28, 1)$
885 : $P_{30456} = (23, 22, 28, 1)$
886 : $P_{30461} = (28, 22, 28, 1)$
887 : $P_{30478} = (13, 23, 28, 1)$
888 : $P_{30485} = (20, 23, 28, 1)$
889 : $P_{30516} = (19, 24, 28, 1)$
890 : $P_{30528} = (31, 24, 28, 1)$
891 : $P_{30561} = (0, 26, 28, 1)$
892 : $P_{30574} = (13, 26, 28, 1)$
893 : $P_{30706} = (17, 30, 28, 1)$
894 : $P_{30719} = (30, 30, 28, 1)$
895 : $P_{30779} = (26, 0, 29, 1)$
896 : $P_{30798} = (13, 1, 29, 1)$
897 : $P_{30800} = (15, 1, 29, 1)$
898 : $P_{30835} = (18, 2, 29, 1)$
899 : $P_{30839} = (22, 2, 29, 1)$
900 : $P_{31000} = (23, 7, 29, 1)$
901 : $P_{31002} = (25, 7, 29, 1)$
902 : $P_{31078} = (5, 10, 29, 1)$
903 : $P_{31090} = (17, 10, 29, 1)$
904 : $P_{31150} = (13, 12, 29, 1)$
905 : $P_{31158} = (21, 12, 29, 1)$
906 : $P_{31216} = (15, 14, 29, 1)$
907 : $P_{31220} = (19, 14, 29, 1)$
908 : $P_{31238} = (5, 15, 29, 1)$
909 : $P_{31260} = (27, 15, 29, 1)$
910 : $P_{31283} = (18, 16, 29, 1)$
911 : $P_{31288} = (23, 16, 29, 1)$
912 : $P_{31308} = (11, 17, 29, 1)$
913 : $P_{31309} = (12, 17, 29, 1)$
914 : $P_{31415} = (22, 20, 29, 1)$
915 : $P_{31420} = (27, 20, 29, 1)$
916 : $P_{31555} = (2, 25, 29, 1)$
917 : $P_{31574} = (21, 25, 29, 1)$
918 : $P_{31596} = (11, 26, 29, 1)$
919 : $P_{31611} = (26, 26, 29, 1)$
920 : $P_{31619} = (2, 27, 29, 1)$
921 : $P_{31634} = (17, 27, 29, 1)$
922 : $P_{31693} = (12, 29, 29, 1)$
923 : $P_{31700} = (19, 29, 29, 1)$
924 : $P_{31713} = (0, 30, 29, 1)$
925 : $P_{31738} = (25, 30, 29, 1)$
926 : $P_{31790} = (13, 0, 30, 1)$
927 : $P_{31890} = (17, 3, 30, 1)$
928 : $P_{31899} = (26, 3, 30, 1)$
929 : $P_{31969} = (0, 6, 30, 1)$
930 : $P_{31991} = (22, 6, 30, 1)$
931 : $P_{32101} = (4, 10, 30, 1)$
932 : $P_{32124} = (27, 10, 30, 1)$
933 : $P_{32147} = (18, 11, 30, 1)$
934 : $P_{32152} = (23, 11, 30, 1)$
935 : $P_{32181} = (20, 12, 30, 1)$
936 : $P_{32190} = (29, 12, 30, 1)$
937 : $P_{32206} = (13, 13, 30, 1)$
938 : $P_{32223} = (30, 13, 30, 1)$
939 : $P_{32229} = (4, 14, 30, 1)$
940 : $P_{32253} = (28, 14, 30, 1)$
941 : $P_{32299} = (10, 16, 30, 1)$
942 : $P_{32311} = (22, 16, 30, 1)$
943 : $P_{32348} = (27, 17, 30, 1)$

944 : $P_{32350} = (29, 17, 30, 1)$
945 : $P_{32370} = (17, 18, 30, 1)$
946 : $P_{32381} = (28, 18, 30, 1)$
947 : $P_{32394} = (9, 19, 30, 1)$
948 : $P_{32415} = (30, 19, 30, 1)$
949 : $P_{32551} = (6, 24, 30, 1)$
950 : $P_{32565} = (20, 24, 30, 1)$
951 : $P_{32595} = (18, 25, 30, 1)$
952 : $P_{32603} = (26, 25, 30, 1)$
953 : $P_{32618} = (9, 26, 30, 1)$
954 : $P_{32619} = (10, 26, 30, 1)$
955 : $P_{32675} = (2, 28, 30, 1)$
956 : $P_{32696} = (23, 28, 30, 1)$
957 : $P_{32739} = (2, 30, 30, 1)$
958 : $P_{32743} = (6, 30, 30, 1)$
959 : $P_{32807} = (6, 0, 31, 1)$
960 : $P_{32906} = (9, 3, 31, 1)$
961 : $P_{32916} = (19, 3, 31, 1)$
962 : $P_{32940} = (11, 4, 31, 1)$
963 : $P_{32950} = (21, 4, 31, 1)$
964 : $P_{32999} = (6, 6, 31, 1)$
965 : $P_{33016} = (23, 6, 31, 1)$
966 : $P_{33049} = (24, 7, 31, 1)$
967 : $P_{33053} = (28, 7, 31, 1)$
968 : $P_{33130} = (9, 10, 31, 1)$
969 : $P_{33152} = (31, 10, 31, 1)$
970 : $P_{33217} = (0, 13, 31, 1)$
971 : $P_{33235} = (18, 13, 31, 1)$
972 : $P_{33292} = (11, 15, 31, 1)$
973 : $P_{33303} = (22, 15, 31, 1)$
974 : $P_{33317} = (4, 16, 31, 1)$
975 : $P_{33332} = (19, 16, 31, 1)$
976 : $P_{33366} = (21, 17, 31, 1)$
977 : $P_{33368} = (23, 17, 31, 1)$
978 : $P_{33414} = (5, 19, 31, 1)$
979 : $P_{33417} = (8, 19, 31, 1)$
980 : $P_{33445} = (4, 20, 31, 1)$
981 : $P_{33454} = (13, 20, 31, 1)$
982 : $P_{33476} = (3, 21, 31, 1)$
983 : $P_{33504} = (31, 21, 31, 1)$
984 : $P_{33508} = (3, 22, 31, 1)$
985 : $P_{33510} = (5, 22, 31, 1)$
986 : $P_{33614} = (13, 25, 31, 1)$
987 : $P_{33623} = (22, 25, 31, 1)$
988 : $P_{33673} = (8, 27, 31, 1)$
989 : $P_{33693} = (28, 27, 31, 1)$
990 : $P_{33811} = (18, 31, 31, 1)$
991 : $P_{33817} = (24, 31, 31, 1)$

Line Intersection Graph

	0	1
0	0	1
1	1	0

Neighbor sets in the line intersection graph:
Line 0 intersects

Line	ℓ_1
in point	P_1

Line 1 intersects

Line	ℓ_0
in point	P_1

The surface has 1057 points:
Too many to print.