

Rank-65868 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(16) is 303112470

General information

Number of lines	0
Number of points	241
Number of singular points	1
Number of Eckardt points	0
Number of double points	0
Number of single points	0
Number of points off lines	241
Number of Hesse planes	0
Number of axes	0
Type of points on lines	
Type of lines on points	0^{241}

Singular Points

The surface has 1 singular points:

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

The 0 Lines

The lines and their Pluecker coordinates are:

Rank of lines: ()

Rank of points on Klein quadric: ()

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 241 points not on any line:

The points on the surface but not on lines are:

0 : $P_1 = (0, 1, 0, 0)$	27 : $P_{715} = (10, 11, 1, 1)$
1 : $P_2 = (0, 0, 1, 0)$	28 : $P_{724} = (3, 12, 1, 1)$
2 : $P_{78} = (11, 3, 1, 0)$	29 : $P_{745} = (8, 13, 1, 1)$
3 : $P_{109} = (10, 5, 1, 0)$	30 : $P_{772} = (3, 15, 1, 1)$
4 : $P_{128} = (13, 6, 1, 0)$	31 : $P_{809} = (8, 1, 2, 1)$
5 : $P_{143} = (12, 7, 1, 0)$	32 : $P_{823} = (6, 2, 2, 1)$
6 : $P_{158} = (11, 8, 1, 0)$	33 : $P_{827} = (10, 2, 2, 1)$
7 : $P_{180} = (1, 10, 1, 0)$	34 : $P_{830} = (13, 2, 2, 1)$
8 : $P_{185} = (6, 10, 1, 0)$	35 : $P_{855} = (6, 4, 2, 1)$
9 : $P_{186} = (7, 10, 1, 0)$	36 : $P_{858} = (9, 4, 2, 1)$
10 : $P_{196} = (1, 11, 1, 0)$	37 : $P_{863} = (14, 4, 2, 1)$
11 : $P_{207} = (12, 11, 1, 0)$	38 : $P_{892} = (11, 6, 2, 1)$
12 : $P_{208} = (13, 11, 1, 0)$	39 : $P_{897} = (0, 7, 2, 1)$
13 : $P_{217} = (6, 12, 1, 0)$	40 : $P_{923} = (10, 8, 2, 1)$
14 : $P_{234} = (7, 13, 1, 0)$	41 : $P_{937} = (8, 9, 2, 1)$
15 : $P_{269} = (10, 15, 1, 0)$	42 : $P_{959} = (14, 10, 2, 1)$
16 : $P_{546} = (0, 1, 1, 1)$	43 : $P_{996} = (3, 13, 2, 1)$
17 : $P_{555} = (10, 1, 1, 1)$	44 : $P_{1002} = (9, 13, 2, 1)$
18 : $P_{556} = (11, 1, 1, 1)$	45 : $P_{1004} = (11, 13, 2, 1)$
19 : $P_{582} = (5, 3, 1, 1)$	46 : $P_{1010} = (1, 14, 2, 1)$
20 : $P_{617} = (8, 5, 1, 1)$	47 : $P_{1012} = (3, 14, 2, 1)$
21 : $P_{630} = (5, 6, 1, 1)$	48 : $P_{1026} = (1, 15, 2, 1)$
22 : $P_{656} = (15, 7, 1, 1)$	49 : $P_{1038} = (13, 15, 2, 1)$
23 : $P_{672} = (15, 8, 1, 1)$	50 : $P_{1063} = (6, 1, 3, 1)$
24 : $P_{690} = (1, 10, 1, 1)$	51 : $P_{1117} = (12, 4, 3, 1)$
25 : $P_{700} = (11, 10, 1, 1)$	52 : $P_{1121} = (0, 5, 3, 1)$
26 : $P_{706} = (1, 11, 1, 1)$	53 : $P_{1151} = (14, 6, 3, 1)$

54 : $P_{1159} = (6, 7, 3, 1)$	108 : $P_{2095} = (14, 1, 7, 1)$
55 : $P_{1172} = (3, 8, 3, 1)$	109 : $P_{2122} = (9, 3, 7, 1)$
56 : $P_{1181} = (12, 8, 3, 1)$	110 : $P_{2185} = (8, 7, 7, 1)$
57 : $P_{1183} = (14, 8, 3, 1)$	111 : $P_{2200} = (7, 8, 7, 1)$
58 : $P_{1220} = (3, 11, 3, 1)$	112 : $P_{2209} = (0, 9, 7, 1)$
59 : $P_{1222} = (5, 11, 3, 1)$	113 : $P_{2213} = (4, 9, 7, 1)$
60 : $P_{1224} = (7, 11, 3, 1)$	114 : $P_{2214} = (5, 9, 7, 1)$
61 : $P_{1240} = (7, 12, 3, 1)$	115 : $P_{2234} = (9, 10, 7, 1)$
62 : $P_{1270} = (5, 14, 3, 1)$	116 : $P_{2262} = (5, 12, 7, 1)$
63 : $P_{1328} = (15, 1, 4, 1)$	117 : $P_{2277} = (4, 13, 7, 1)$
64 : $P_{1330} = (1, 2, 4, 1)$	118 : $P_{2312} = (7, 15, 7, 1)$
65 : $P_{1334} = (5, 2, 4, 1)$	119 : $P_{2313} = (8, 15, 7, 1)$
66 : $P_{1346} = (1, 3, 4, 1)$	120 : $P_{2319} = (14, 15, 7, 1)$
67 : $P_{1352} = (7, 3, 4, 1)$	121 : $P_{2344} = (7, 1, 8, 1)$
68 : $P_{1368} = (7, 4, 4, 1)$	122 : $P_{2373} = (4, 3, 8, 1)$
69 : $P_{1372} = (11, 4, 4, 1)$	123 : $P_{2377} = (8, 3, 8, 1)$
70 : $P_{1374} = (13, 4, 4, 1)$	124 : $P_{2382} = (13, 3, 8, 1)$
71 : $P_{1414} = (5, 7, 4, 1)$	125 : $P_{2400} = (15, 4, 8, 1)$
72 : $P_{1419} = (10, 7, 4, 1)$	126 : $P_{2424} = (7, 6, 8, 1)$
73 : $P_{1423} = (14, 7, 4, 1)$	127 : $P_{2437} = (4, 7, 8, 1)$
74 : $P_{1443} = (2, 9, 4, 1)$	128 : $P_{2503} = (6, 11, 8, 1)$
75 : $P_{1454} = (13, 9, 4, 1)$	129 : $P_{2505} = (8, 11, 8, 1)$
76 : $P_{1455} = (14, 9, 4, 1)$	130 : $P_{2512} = (15, 11, 8, 1)$
77 : $P_{1475} = (2, 11, 4, 1)$	131 : $P_{2535} = (6, 13, 8, 1)$
78 : $P_{1489} = (0, 12, 4, 1)$	132 : $P_{2558} = (13, 14, 8, 1)$
79 : $P_{1515} = (10, 13, 4, 1)$	133 : $P_{2561} = (0, 15, 8, 1)$
80 : $P_{1536} = (15, 14, 4, 1)$	134 : $P_{2596} = (3, 1, 9, 1)$
81 : $P_{1548} = (11, 15, 4, 1)$	135 : $P_{2612} = (3, 2, 9, 1)$
82 : $P_{1582} = (13, 1, 5, 1)$	136 : $P_{2635} = (10, 3, 9, 1)$
83 : $P_{1593} = (8, 2, 5, 1)$	137 : $P_{2642} = (1, 4, 9, 1)$
84 : $P_{1661} = (12, 6, 5, 1)$	138 : $P_{2649} = (8, 4, 9, 1)$
85 : $P_{1681} = (0, 8, 5, 1)$	139 : $P_{2658} = (1, 5, 9, 1)$
86 : $P_{1703} = (6, 9, 5, 1)$	140 : $P_{2669} = (12, 5, 9, 1)$
87 : $P_{1718} = (5, 10, 5, 1)$	141 : $P_{2673} = (0, 6, 9, 1)$
88 : $P_{1721} = (8, 10, 5, 1)$	142 : $P_{2700} = (11, 7, 9, 1)$
89 : $P_{1725} = (12, 10, 5, 1)$	143 : $P_{2728} = (7, 9, 9, 1)$
90 : $P_{1758} = (13, 12, 5, 1)$	144 : $P_{2731} = (10, 9, 9, 1)$
91 : $P_{1763} = (2, 13, 5, 1)$	145 : $P_{2733} = (12, 9, 9, 1)$
92 : $P_{1795} = (2, 15, 5, 1)$	146 : $P_{2741} = (4, 10, 9, 1)$
93 : $P_{1798} = (5, 15, 5, 1)$	147 : $P_{2771} = (2, 12, 9, 1)$
94 : $P_{1799} = (6, 15, 5, 1)$	148 : $P_{2777} = (8, 12, 9, 1)$
95 : $P_{1829} = (4, 1, 6, 1)$	149 : $P_{2780} = (11, 12, 9, 1)$
96 : $P_{1841} = (0, 2, 6, 1)$	150 : $P_{2803} = (2, 14, 9, 1)$
97 : $P_{1855} = (14, 2, 6, 1)$	151 : $P_{2805} = (4, 14, 9, 1)$
98 : $P_{1856} = (15, 2, 6, 1)$	152 : $P_{2808} = (7, 14, 9, 1)$
99 : $P_{1863} = (6, 3, 6, 1)$	153 : $P_{2892} = (11, 3, 10, 1)$
100 : $P_{1892} = (3, 5, 6, 1)$	154 : $P_{2907} = (10, 4, 10, 1)$
101 : $P_{1893} = (4, 5, 6, 1)$	155 : $P_{2915} = (2, 5, 10, 1)$
102 : $P_{1895} = (6, 5, 6, 1)$	156 : $P_{2930} = (1, 6, 10, 1)$
103 : $P_{1908} = (3, 6, 6, 1)$	157 : $P_{2938} = (9, 6, 10, 1)$
104 : $P_{1939} = (2, 8, 6, 1)$	158 : $P_{2946} = (1, 7, 10, 1)$
105 : $P_{1971} = (2, 10, 6, 1)$	159 : $P_{2947} = (2, 7, 10, 1)$
106 : $P_{2015} = (14, 12, 6, 1)$	160 : $P_{2972} = (11, 8, 10, 1)$
107 : $P_{2032} = (15, 13, 6, 1)$	161 : $P_{2993} = (0, 10, 10, 1)$

162 : $P_{2999} = (6, 10, 10, 1)$
 163 : $P_{3000} = (7, 10, 10, 1)$
 164 : $P_{3031} = (6, 12, 10, 1)$
 165 : $P_{3048} = (7, 13, 10, 1)$
 166 : $P_{3067} = (10, 14, 10, 1)$
 167 : $P_{3082} = (9, 15, 10, 1)$
 168 : $P_{3132} = (11, 2, 11, 1)$
 169 : $P_{3151} = (14, 3, 11, 1)$
 170 : $P_{3179} = (10, 5, 11, 1)$
 171 : $P_{3198} = (13, 6, 11, 1)$
 172 : $P_{3213} = (12, 7, 11, 1)$
 173 : $P_{3221} = (4, 8, 11, 1)$
 174 : $P_{3244} = (11, 9, 11, 1)$
 175 : $P_{3265} = (0, 11, 11, 1)$
 176 : $P_{3277} = (12, 11, 11, 1)$
 177 : $P_{3278} = (13, 11, 11, 1)$
 178 : $P_{3282} = (1, 12, 11, 1)$
 179 : $P_{3285} = (4, 12, 11, 1)$
 180 : $P_{3298} = (1, 13, 11, 1)$
 181 : $P_{3311} = (14, 13, 11, 1)$
 182 : $P_{3339} = (10, 15, 11, 1)$
 183 : $P_{3363} = (2, 1, 12, 1)$
 184 : $P_{3395} = (2, 3, 12, 1)$
 185 : $P_{3405} = (12, 3, 12, 1)$
 186 : $P_{3408} = (15, 3, 12, 1)$
 187 : $P_{3439} = (14, 5, 12, 1)$
 188 : $P_{3449} = (8, 6, 12, 1)$
 189 : $P_{3466} = (9, 7, 12, 1)$
 190 : $P_{3535} = (14, 11, 12, 1)$
 191 : $P_{3552} = (15, 12, 12, 1)$
 192 : $P_{3569} = (0, 14, 12, 1)$
 193 : $P_{3577} = (8, 14, 12, 1)$
 194 : $P_{3578} = (9, 14, 12, 1)$
 195 : $P_{3597} = (12, 15, 12, 1)$
 196 : $P_{3626} = (9, 1, 13, 1)$
 197 : $P_{3665} = (0, 4, 13, 1)$
 198 : $P_{3667} = (2, 4, 13, 1)$
 199 : $P_{3668} = (3, 4, 13, 1)$
 200 : $P_{3694} = (13, 5, 13, 1)$
 201 : $P_{3699} = (2, 6, 13, 1)$

202 : $P_{3716} = (3, 7, 13, 1)$
 203 : $P_{3734} = (5, 8, 13, 1)$
 204 : $P_{3738} = (9, 8, 13, 1)$
 205 : $P_{3742} = (13, 8, 13, 1)$
 206 : $P_{3781} = (4, 11, 13, 1)$
 207 : $P_{3814} = (5, 13, 13, 1)$
 208 : $P_{3845} = (4, 15, 13, 1)$
 209 : $P_{3878} = (5, 1, 14, 1)$
 210 : $P_{3893} = (4, 2, 14, 1)$
 211 : $P_{3898} = (9, 2, 14, 1)$
 212 : $P_{3901} = (12, 2, 14, 1)$
 213 : $P_{3926} = (5, 4, 14, 1)$
 214 : $P_{3948} = (11, 5, 14, 1)$
 215 : $P_{3957} = (4, 6, 14, 1)$
 216 : $P_{3963} = (10, 6, 14, 1)$
 217 : $P_{3968} = (15, 6, 14, 1)$
 218 : $P_{3986} = (1, 8, 14, 1)$
 219 : $P_{3991} = (6, 8, 14, 1)$
 220 : $P_{4002} = (1, 9, 14, 1)$
 221 : $P_{4016} = (15, 9, 14, 1)$
 222 : $P_{4042} = (9, 11, 14, 1)$
 223 : $P_{4059} = (10, 12, 14, 1)$
 224 : $P_{4065} = (0, 13, 14, 1)$
 225 : $P_{4087} = (6, 14, 14, 1)$
 226 : $P_{4092} = (11, 14, 14, 1)$
 227 : $P_{4093} = (12, 14, 14, 1)$
 228 : $P_{4141} = (12, 1, 15, 1)$
 229 : $P_{4152} = (7, 2, 15, 1)$
 230 : $P_{4161} = (0, 3, 15, 1)$
 231 : $P_{4200} = (7, 5, 15, 1)$
 232 : $P_{4202} = (9, 5, 15, 1)$
 233 : $P_{4208} = (15, 5, 15, 1)$
 234 : $P_{4238} = (13, 7, 15, 1)$
 235 : $P_{4260} = (3, 9, 15, 1)$
 236 : $P_{4276} = (3, 10, 15, 1)$
 237 : $P_{4286} = (13, 10, 15, 1)$
 238 : $P_{4288} = (15, 10, 15, 1)$
 239 : $P_{4314} = (9, 12, 15, 1)$
 240 : $P_{4333} = (12, 13, 15, 1)$

Line Intersection Graph

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Neighbor sets in the line intersection graph:

The surface has 241 points:

The points on the surface are:

0 : $P_1 = (0, 1, 0, 0)$
 1 : $P_2 = (0, 0, 1, 0)$
 2 : $P_{78} = (11, 3, 1, 0)$
 3 : $P_{109} = (10, 5, 1, 0)$

4 : $P_{128} = (13, 6, 1, 0)$
 5 : $P_{143} = (12, 7, 1, 0)$
 6 : $P_{158} = (11, 8, 1, 0)$
 7 : $P_{180} = (1, 10, 1, 0)$

8 : $P_{185} = (6, 10, 1, 0)$
 9 : $P_{186} = (7, 10, 1, 0)$
 10 : $P_{196} = (1, 11, 1, 0)$
 11 : $P_{207} = (12, 11, 1, 0)$

12 : $P_{208} = (13, 11, 1, 0)$	66 : $P_{1346} = (1, 3, 4, 1)$	120 : $P_{2319} = (14, 15, 7, 1)$
13 : $P_{217} = (6, 12, 1, 0)$	67 : $P_{1352} = (7, 3, 4, 1)$	121 : $P_{2344} = (7, 1, 8, 1)$
14 : $P_{234} = (7, 13, 1, 0)$	68 : $P_{1368} = (7, 4, 4, 1)$	122 : $P_{2373} = (4, 3, 8, 1)$
15 : $P_{269} = (10, 15, 1, 0)$	69 : $P_{1372} = (11, 4, 4, 1)$	123 : $P_{2377} = (8, 3, 8, 1)$
16 : $P_{546} = (0, 1, 1, 1)$	70 : $P_{1374} = (13, 4, 4, 1)$	124 : $P_{2382} = (13, 3, 8, 1)$
17 : $P_{555} = (10, 1, 1, 1)$	71 : $P_{1414} = (5, 7, 4, 1)$	125 : $P_{2400} = (15, 4, 8, 1)$
18 : $P_{556} = (11, 1, 1, 1)$	72 : $P_{1419} = (10, 7, 4, 1)$	126 : $P_{2424} = (7, 6, 8, 1)$
19 : $P_{582} = (5, 3, 1, 1)$	73 : $P_{1423} = (14, 7, 4, 1)$	127 : $P_{2437} = (4, 7, 8, 1)$
20 : $P_{617} = (8, 5, 1, 1)$	74 : $P_{1443} = (2, 9, 4, 1)$	128 : $P_{2503} = (6, 11, 8, 1)$
21 : $P_{630} = (5, 6, 1, 1)$	75 : $P_{1454} = (13, 9, 4, 1)$	129 : $P_{2505} = (8, 11, 8, 1)$
22 : $P_{656} = (15, 7, 1, 1)$	76 : $P_{1455} = (14, 9, 4, 1)$	130 : $P_{2512} = (15, 11, 8, 1)$
23 : $P_{672} = (15, 8, 1, 1)$	77 : $P_{1475} = (2, 11, 4, 1)$	131 : $P_{2535} = (6, 13, 8, 1)$
24 : $P_{690} = (1, 10, 1, 1)$	78 : $P_{1489} = (0, 12, 4, 1)$	132 : $P_{2558} = (13, 14, 8, 1)$
25 : $P_{700} = (11, 10, 1, 1)$	79 : $P_{1515} = (10, 13, 4, 1)$	133 : $P_{2561} = (0, 15, 8, 1)$
26 : $P_{706} = (1, 11, 1, 1)$	80 : $P_{1536} = (15, 14, 4, 1)$	134 : $P_{2596} = (3, 1, 9, 1)$
27 : $P_{715} = (10, 11, 1, 1)$	81 : $P_{1548} = (11, 15, 4, 1)$	135 : $P_{2612} = (3, 2, 9, 1)$
28 : $P_{724} = (3, 12, 1, 1)$	82 : $P_{1582} = (13, 1, 5, 1)$	136 : $P_{2635} = (10, 3, 9, 1)$
29 : $P_{745} = (8, 13, 1, 1)$	83 : $P_{1593} = (8, 2, 5, 1)$	137 : $P_{2642} = (1, 4, 9, 1)$
30 : $P_{772} = (3, 15, 1, 1)$	84 : $P_{1661} = (12, 6, 5, 1)$	138 : $P_{2649} = (8, 4, 9, 1)$
31 : $P_{809} = (8, 1, 2, 1)$	85 : $P_{1681} = (0, 8, 5, 1)$	139 : $P_{2658} = (1, 5, 9, 1)$
32 : $P_{823} = (6, 2, 2, 1)$	86 : $P_{1703} = (6, 9, 5, 1)$	140 : $P_{2669} = (12, 5, 9, 1)$
33 : $P_{827} = (10, 2, 2, 1)$	87 : $P_{1718} = (5, 10, 5, 1)$	141 : $P_{2673} = (0, 6, 9, 1)$
34 : $P_{830} = (13, 2, 2, 1)$	88 : $P_{1721} = (8, 10, 5, 1)$	142 : $P_{2700} = (11, 7, 9, 1)$
35 : $P_{855} = (6, 4, 2, 1)$	89 : $P_{1725} = (12, 10, 5, 1)$	143 : $P_{2728} = (7, 9, 9, 1)$
36 : $P_{858} = (9, 4, 2, 1)$	90 : $P_{1758} = (13, 12, 5, 1)$	144 : $P_{2731} = (10, 9, 9, 1)$
37 : $P_{863} = (14, 4, 2, 1)$	91 : $P_{1763} = (2, 13, 5, 1)$	145 : $P_{2733} = (12, 9, 9, 1)$
38 : $P_{892} = (11, 6, 2, 1)$	92 : $P_{1795} = (2, 15, 5, 1)$	146 : $P_{2741} = (4, 10, 9, 1)$
39 : $P_{897} = (0, 7, 2, 1)$	93 : $P_{1798} = (5, 15, 5, 1)$	147 : $P_{2771} = (2, 12, 9, 1)$
40 : $P_{923} = (10, 8, 2, 1)$	94 : $P_{1799} = (6, 15, 5, 1)$	148 : $P_{2777} = (8, 12, 9, 1)$
41 : $P_{937} = (8, 9, 2, 1)$	95 : $P_{1829} = (4, 1, 6, 1)$	149 : $P_{2780} = (11, 12, 9, 1)$
42 : $P_{959} = (14, 10, 2, 1)$	96 : $P_{1841} = (0, 2, 6, 1)$	150 : $P_{2803} = (2, 14, 9, 1)$
43 : $P_{996} = (3, 13, 2, 1)$	97 : $P_{1855} = (14, 2, 6, 1)$	151 : $P_{2805} = (4, 14, 9, 1)$
44 : $P_{1002} = (9, 13, 2, 1)$	98 : $P_{1856} = (15, 2, 6, 1)$	152 : $P_{2808} = (7, 14, 9, 1)$
45 : $P_{1004} = (11, 13, 2, 1)$	99 : $P_{1863} = (6, 3, 6, 1)$	153 : $P_{2892} = (11, 3, 10, 1)$
46 : $P_{1010} = (1, 14, 2, 1)$	100 : $P_{1892} = (3, 5, 6, 1)$	154 : $P_{2907} = (10, 4, 10, 1)$
47 : $P_{1012} = (3, 14, 2, 1)$	101 : $P_{1893} = (4, 5, 6, 1)$	155 : $P_{2915} = (2, 5, 10, 1)$
48 : $P_{1026} = (1, 15, 2, 1)$	102 : $P_{1895} = (6, 5, 6, 1)$	156 : $P_{2930} = (1, 6, 10, 1)$
49 : $P_{1038} = (13, 15, 2, 1)$	103 : $P_{1908} = (3, 6, 6, 1)$	157 : $P_{2938} = (9, 6, 10, 1)$
50 : $P_{1063} = (6, 1, 3, 1)$	104 : $P_{1939} = (2, 8, 6, 1)$	158 : $P_{2946} = (1, 7, 10, 1)$
51 : $P_{1117} = (12, 4, 3, 1)$	105 : $P_{1971} = (2, 10, 6, 1)$	159 : $P_{2947} = (2, 7, 10, 1)$
52 : $P_{1121} = (0, 5, 3, 1)$	106 : $P_{2015} = (14, 12, 6, 1)$	160 : $P_{2972} = (11, 8, 10, 1)$
53 : $P_{1151} = (14, 6, 3, 1)$	107 : $P_{2032} = (15, 13, 6, 1)$	161 : $P_{2993} = (0, 10, 10, 1)$
54 : $P_{1159} = (6, 7, 3, 1)$	108 : $P_{2095} = (14, 1, 7, 1)$	162 : $P_{2999} = (6, 10, 10, 1)$
55 : $P_{1172} = (3, 8, 3, 1)$	109 : $P_{2122} = (9, 3, 7, 1)$	163 : $P_{3000} = (7, 10, 10, 1)$
56 : $P_{1181} = (12, 8, 3, 1)$	110 : $P_{2185} = (8, 7, 7, 1)$	164 : $P_{3031} = (6, 12, 10, 1)$
57 : $P_{1183} = (14, 8, 3, 1)$	111 : $P_{2200} = (7, 8, 7, 1)$	165 : $P_{3048} = (7, 13, 10, 1)$
58 : $P_{1220} = (3, 11, 3, 1)$	112 : $P_{2209} = (0, 9, 7, 1)$	166 : $P_{3067} = (10, 14, 10, 1)$
59 : $P_{1222} = (5, 11, 3, 1)$	113 : $P_{2213} = (4, 9, 7, 1)$	167 : $P_{3082} = (9, 15, 10, 1)$
60 : $P_{1224} = (7, 11, 3, 1)$	114 : $P_{2214} = (5, 9, 7, 1)$	168 : $P_{3132} = (11, 2, 11, 1)$
61 : $P_{1240} = (7, 12, 3, 1)$	115 : $P_{2234} = (9, 10, 7, 1)$	169 : $P_{3151} = (14, 3, 11, 1)$
62 : $P_{1270} = (5, 14, 3, 1)$	116 : $P_{2262} = (5, 12, 7, 1)$	170 : $P_{3179} = (10, 5, 11, 1)$
63 : $P_{1328} = (15, 1, 4, 1)$	117 : $P_{2277} = (4, 13, 7, 1)$	171 : $P_{3198} = (13, 6, 11, 1)$
64 : $P_{1330} = (1, 2, 4, 1)$	118 : $P_{2312} = (7, 15, 7, 1)$	172 : $P_{3213} = (12, 7, 11, 1)$
65 : $P_{1334} = (5, 2, 4, 1)$	119 : $P_{2313} = (8, 15, 7, 1)$	173 : $P_{3221} = (4, 8, 11, 1)$

174 : $P_{3244} = (11, 9, 11, 1)$	197 : $P_{3665} = (0, 4, 13, 1)$	220 : $P_{4002} = (1, 9, 14, 1)$
175 : $P_{3265} = (0, 11, 11, 1)$	198 : $P_{3667} = (2, 4, 13, 1)$	221 : $P_{4016} = (15, 9, 14, 1)$
176 : $P_{3277} = (12, 11, 11, 1)$	199 : $P_{3668} = (3, 4, 13, 1)$	222 : $P_{4042} = (9, 11, 14, 1)$
177 : $P_{3278} = (13, 11, 11, 1)$	200 : $P_{3694} = (13, 5, 13, 1)$	223 : $P_{4059} = (10, 12, 14, 1)$
178 : $P_{3282} = (1, 12, 11, 1)$	201 : $P_{3699} = (2, 6, 13, 1)$	224 : $P_{4065} = (0, 13, 14, 1)$
179 : $P_{3285} = (4, 12, 11, 1)$	202 : $P_{3716} = (3, 7, 13, 1)$	225 : $P_{4087} = (6, 14, 14, 1)$
180 : $P_{3298} = (1, 13, 11, 1)$	203 : $P_{3734} = (5, 8, 13, 1)$	226 : $P_{4092} = (11, 14, 14, 1)$
181 : $P_{3311} = (14, 13, 11, 1)$	204 : $P_{3738} = (9, 8, 13, 1)$	227 : $P_{4093} = (12, 14, 14, 1)$
182 : $P_{3339} = (10, 15, 11, 1)$	205 : $P_{3742} = (13, 8, 13, 1)$	228 : $P_{4141} = (12, 1, 15, 1)$
183 : $P_{3363} = (2, 1, 12, 1)$	206 : $P_{3781} = (4, 11, 13, 1)$	229 : $P_{4152} = (7, 2, 15, 1)$
184 : $P_{3395} = (2, 3, 12, 1)$	207 : $P_{3814} = (5, 13, 13, 1)$	230 : $P_{4161} = (0, 3, 15, 1)$
185 : $P_{3405} = (12, 3, 12, 1)$	208 : $P_{3845} = (4, 15, 13, 1)$	231 : $P_{4200} = (7, 5, 15, 1)$
186 : $P_{3408} = (15, 3, 12, 1)$	209 : $P_{3878} = (5, 1, 14, 1)$	232 : $P_{4202} = (9, 5, 15, 1)$
187 : $P_{3439} = (14, 5, 12, 1)$	210 : $P_{3893} = (4, 2, 14, 1)$	233 : $P_{4208} = (15, 5, 15, 1)$
188 : $P_{3449} = (8, 6, 12, 1)$	211 : $P_{3898} = (9, 2, 14, 1)$	234 : $P_{4238} = (13, 7, 15, 1)$
189 : $P_{3466} = (9, 7, 12, 1)$	212 : $P_{3901} = (12, 2, 14, 1)$	235 : $P_{4260} = (3, 9, 15, 1)$
190 : $P_{3535} = (14, 11, 12, 1)$	213 : $P_{3926} = (5, 4, 14, 1)$	236 : $P_{4276} = (3, 10, 15, 1)$
191 : $P_{3552} = (15, 12, 12, 1)$	214 : $P_{3948} = (11, 5, 14, 1)$	237 : $P_{4286} = (13, 10, 15, 1)$
192 : $P_{3569} = (0, 14, 12, 1)$	215 : $P_{3957} = (4, 6, 14, 1)$	238 : $P_{4288} = (15, 10, 15, 1)$
193 : $P_{3577} = (8, 14, 12, 1)$	216 : $P_{3963} = (10, 6, 14, 1)$	239 : $P_{4314} = (9, 12, 15, 1)$
194 : $P_{3578} = (9, 14, 12, 1)$	217 : $P_{3968} = (15, 6, 14, 1)$	240 : $P_{4333} = (12, 13, 15, 1)$
195 : $P_{3597} = (12, 15, 12, 1)$	218 : $P_{3986} = (1, 8, 14, 1)$	
196 : $P_{3626} = (9, 1, 13, 1)$	219 : $P_{3991} = (6, 8, 14, 1)$	