

# Rank-65904 over GF(16)

January 15, 2021

## The equation

The equation of the surface is :

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

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

The point rank of the equation over GF(16) is 304161302

## General information

Number of lines	0
Number of points	273
Number of singular points	0
Number of Eckardt points	0
Number of double points	0
Number of single points	0
Number of points off lines	273
Number of Hesse planes	0
Number of axes	0
Type of points on lines	
Type of lines on points	$0^{273}$

## Singular Points

The surface has 0 singular points:

## 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 273 points not on any line:

The points on the surface but not on lines are:

0 : $P_1 = (0, 1, 0, 0)$	27 : $P_{718} = (13, 11, 1, 1)$
1 : $P_{35} = (0, 1, 1, 0)$	28 : $P_{727} = (6, 12, 1, 1)$
2 : $P_{45} = (10, 1, 1, 0)$	29 : $P_{744} = (7, 13, 1, 1)$
3 : $P_{46} = (11, 1, 1, 0)$	30 : $P_{779} = (10, 15, 1, 1)$
4 : $P_{72} = (5, 3, 1, 0)$	31 : $P_{797} = (12, 0, 2, 1)$
5 : $P_{107} = (8, 5, 1, 0)$	32 : $P_{828} = (11, 2, 2, 1)$
6 : $P_{120} = (5, 6, 1, 0)$	33 : $P_{857} = (8, 4, 2, 1)$
7 : $P_{146} = (15, 7, 1, 0)$	34 : $P_{865} = (0, 5, 2, 1)$
8 : $P_{162} = (15, 8, 1, 0)$	35 : $P_{910} = (13, 7, 2, 1)$
9 : $P_{180} = (1, 10, 1, 0)$	36 : $P_{940} = (11, 9, 2, 1)$
10 : $P_{190} = (11, 10, 1, 0)$	37 : $P_{958} = (13, 10, 2, 1)$
11 : $P_{196} = (1, 11, 1, 0)$	38 : $P_{968} = (7, 11, 2, 1)$
12 : $P_{205} = (10, 11, 1, 0)$	39 : $P_{984} = (7, 12, 2, 1)$
13 : $P_{214} = (3, 12, 1, 0)$	40 : $P_{985} = (8, 12, 2, 1)$
14 : $P_{235} = (8, 13, 1, 0)$	41 : $P_{989} = (12, 12, 2, 1)$
15 : $P_{262} = (3, 15, 1, 0)$	42 : $P_{1048} = (7, 0, 3, 1)$
16 : $P_{530} = (0, 0, 1, 1)$	43 : $P_{1051} = (10, 0, 3, 1)$
17 : $P_{588} = (11, 3, 1, 1)$	44 : $P_{1056} = (15, 0, 3, 1)$
18 : $P_{619} = (10, 5, 1, 1)$	45 : $P_{1082} = (9, 2, 3, 1)$
19 : $P_{638} = (13, 6, 1, 1)$	46 : $P_{1095} = (6, 3, 3, 1)$
20 : $P_{653} = (12, 7, 1, 1)$	47 : $P_{1097} = (8, 3, 3, 1)$
21 : $P_{668} = (11, 8, 1, 1)$	48 : $P_{1101} = (12, 3, 3, 1)$
22 : $P_{690} = (1, 10, 1, 1)$	49 : $P_{1118} = (13, 4, 3, 1)$
23 : $P_{695} = (6, 10, 1, 1)$	50 : $P_{1127} = (6, 5, 3, 1)$
24 : $P_{696} = (7, 10, 1, 1)$	51 : $P_{1137} = (0, 6, 3, 1)$
25 : $P_{706} = (1, 11, 1, 1)$	52 : $P_{1160} = (7, 7, 3, 1)$
26 : $P_{717} = (12, 11, 1, 1)$	53 : $P_{1172} = (3, 8, 3, 1)$

54 : $P_{1198} = (13, 9, 3, 1)$	108 : $P_{2016} = (15, 12, 6, 1)$
55 : $P_{1211} = (10, 10, 3, 1)$	109 : $P_{2021} = (4, 13, 6, 1)$
56 : $P_{1220} = (3, 11, 3, 1)$	110 : $P_{2030} = (13, 13, 6, 1)$
57 : $P_{1225} = (8, 11, 3, 1)$	111 : $P_{2031} = (14, 13, 6, 1)$
58 : $P_{1226} = (9, 11, 3, 1)$	112 : $P_{2038} = (5, 14, 6, 1)$
59 : $P_{1266} = (1, 14, 3, 1)$	113 : $P_{2042} = (9, 14, 6, 1)$
60 : $P_{1282} = (1, 15, 3, 1)$	114 : $P_{2044} = (11, 14, 6, 1)$
61 : $P_{1293} = (12, 15, 3, 1)$	115 : $P_{2059} = (10, 15, 6, 1)$
62 : $P_{1296} = (15, 15, 3, 1)$	116 : $P_{2077} = (12, 0, 7, 1)$
63 : $P_{1303} = (6, 0, 4, 1)$	117 : $P_{2111} = (14, 2, 7, 1)$
64 : $P_{1371} = (10, 4, 4, 1)$	118 : $P_{2131} = (2, 4, 7, 1)$
65 : $P_{1399} = (6, 6, 4, 1)$	119 : $P_{2140} = (11, 4, 7, 1)$
66 : $P_{1405} = (12, 6, 4, 1)$	120 : $P_{2144} = (15, 4, 7, 1)$
67 : $P_{1408} = (15, 6, 4, 1)$	121 : $P_{2155} = (10, 5, 7, 1)$
68 : $P_{1425} = (0, 8, 4, 1)$	122 : $P_{2163} = (2, 6, 7, 1)$
69 : $P_{1456} = (15, 9, 4, 1)$	123 : $P_{2197} = (4, 8, 7, 1)$
70 : $P_{1469} = (12, 10, 4, 1)$	124 : $P_{2198} = (5, 8, 7, 1)$
71 : $P_{1480} = (7, 11, 4, 1)$	125 : $P_{2200} = (7, 8, 7, 1)$
72 : $P_{1496} = (7, 12, 4, 1)$	126 : $P_{2247} = (6, 11, 7, 1)$
73 : $P_{1531} = (10, 14, 4, 1)$	127 : $P_{2256} = (15, 11, 7, 1)$
74 : $P_{1556} = (3, 0, 5, 1)$	128 : $P_{2261} = (4, 12, 7, 1)$
75 : $P_{1564} = (11, 0, 5, 1)$	129 : $P_{2269} = (12, 12, 7, 1)$
76 : $P_{1565} = (12, 0, 5, 1)$	130 : $P_{2271} = (14, 12, 7, 1)$
77 : $P_{1586} = (1, 2, 5, 1)$	131 : $P_{2278} = (5, 13, 7, 1)$
78 : $P_{1602} = (1, 3, 5, 1)$	132 : $P_{2279} = (6, 13, 7, 1)$
79 : $P_{1604} = (3, 3, 5, 1)$	133 : $P_{2289} = (0, 14, 7, 1)$
80 : $P_{1607} = (6, 3, 5, 1)$	134 : $P_{2312} = (7, 15, 7, 1)$
81 : $P_{1631} = (14, 4, 5, 1)$	135 : $P_{2315} = (10, 15, 7, 1)$
82 : $P_{1639} = (6, 5, 5, 1)$	136 : $P_{2316} = (11, 15, 7, 1)$
83 : $P_{1646} = (13, 5, 5, 1)$	137 : $P_{2326} = (5, 0, 8, 1)$
84 : $P_{1648} = (15, 5, 5, 1)$	138 : $P_{2327} = (6, 0, 8, 1)$
85 : $P_{1694} = (13, 8, 5, 1)$	139 : $P_{2331} = (10, 0, 8, 1)$
86 : $P_{1704} = (7, 9, 5, 1)$	140 : $P_{2365} = (12, 2, 8, 1)$
87 : $P_{1718} = (5, 10, 5, 1)$	141 : $P_{2377} = (8, 3, 8, 1)$
88 : $P_{1727} = (14, 10, 5, 1)$	142 : $P_{2386} = (1, 4, 8, 1)$
89 : $P_{1728} = (15, 10, 5, 1)$	143 : $P_{2402} = (1, 5, 8, 1)$
90 : $P_{1740} = (11, 11, 5, 1)$	144 : $P_{2406} = (5, 5, 8, 1)$
91 : $P_{1757} = (12, 12, 5, 1)$	145 : $P_{2414} = (13, 5, 8, 1)$
92 : $P_{1761} = (0, 13, 5, 1)$	146 : $P_{2423} = (6, 6, 8, 1)$
93 : $P_{1784} = (7, 14, 5, 1)$	147 : $P_{2433} = (0, 7, 8, 1)$
94 : $P_{1798} = (5, 15, 5, 1)$	148 : $P_{2452} = (3, 8, 8, 1)$
95 : $P_{1822} = (13, 0, 6, 1)$	149 : $P_{2456} = (7, 8, 8, 1)$
96 : $P_{1863} = (6, 3, 6, 1)$	150 : $P_{2462} = (13, 8, 8, 1)$
97 : $P_{1871} = (14, 3, 6, 1)$	151 : $P_{2467} = (2, 9, 8, 1)$
98 : $P_{1872} = (15, 3, 6, 1)$	152 : $P_{2491} = (10, 10, 8, 1)$
99 : $P_{1873} = (0, 4, 6, 1)$	153 : $P_{2499} = (2, 11, 8, 1)$
100 : $P_{1895} = (6, 5, 6, 1)$	154 : $P_{2500} = (3, 11, 8, 1)$
101 : $P_{1899} = (10, 5, 6, 1)$	155 : $P_{2505} = (8, 11, 8, 1)$
102 : $P_{1900} = (11, 5, 6, 1)$	156 : $P_{2557} = (12, 14, 8, 1)$
103 : $P_{1930} = (9, 7, 6, 1)$	157 : $P_{2568} = (7, 15, 8, 1)$
104 : $P_{1957} = (4, 9, 6, 1)$	158 : $P_{2590} = (13, 0, 9, 1)$
105 : $P_{1990} = (5, 11, 6, 1)$	159 : $P_{2620} = (11, 2, 9, 1)$
106 : $P_{1992} = (7, 11, 6, 1)$	160 : $P_{2685} = (12, 6, 9, 1)$
107 : $P_{2008} = (7, 12, 6, 1)$	161 : $P_{2732} = (11, 9, 9, 1)$

162 :  $P_{2749} = (12, 10, 9, 1)$   
 163 :  $P_{2759} = (6, 11, 9, 1)$   
 164 :  $P_{2788} = (3, 13, 9, 1)$   
 165 :  $P_{2791} = (6, 13, 9, 1)$   
 166 :  $P_{2798} = (13, 13, 9, 1)$   
 167 :  $P_{2804} = (3, 14, 9, 1)$   
 168 :  $P_{2817} = (0, 15, 9, 1)$   
 169 :  $P_{2833} = (0, 0, 10, 1)$   
 170 :  $P_{2844} = (11, 0, 10, 1)$   
 171 :  $P_{2879} = (14, 2, 10, 1)$   
 172 :  $P_{2907} = (10, 4, 10, 1)$   
 173 :  $P_{2928} = (15, 5, 10, 1)$   
 174 :  $P_{2981} = (4, 9, 10, 1)$   
 175 :  $P_{2994} = (1, 10, 10, 1)$   
 176 :  $P_{2998} = (5, 10, 10, 1)$   
 177 :  $P_{3008} = (15, 10, 10, 1)$   
 178 :  $P_{3010} = (1, 11, 10, 1)$   
 179 :  $P_{3020} = (11, 11, 10, 1)$   
 180 :  $P_{3039} = (14, 12, 10, 1)$   
 181 :  $P_{3045} = (4, 13, 10, 1)$   
 182 :  $P_{3067} = (10, 14, 10, 1)$   
 183 :  $P_{3078} = (5, 15, 10, 1)$   
 184 :  $P_{3089} = (0, 0, 11, 1)$   
 185 :  $P_{3099} = (10, 0, 11, 1)$   
 186 :  $P_{3132} = (11, 2, 11, 1)$   
 187 :  $P_{3145} = (8, 3, 11, 1)$   
 188 :  $P_{3155} = (2, 4, 11, 1)$   
 189 :  $P_{3187} = (2, 6, 11, 1)$   
 190 :  $P_{3210} = (9, 7, 11, 1)$   
 191 :  $P_{3220} = (3, 8, 11, 1)$   
 192 :  $P_{3244} = (11, 9, 11, 1)$   
 193 :  $P_{3250} = (1, 10, 11, 1)$   
 194 :  $P_{3259} = (10, 10, 11, 1)$   
 195 :  $P_{3266} = (1, 11, 11, 1)$   
 196 :  $P_{3268} = (3, 11, 11, 1)$   
 197 :  $P_{3273} = (8, 11, 11, 1)$   
 198 :  $P_{3322} = (9, 14, 11, 1)$   
 199 :  $P_{3351} = (6, 0, 12, 1)$   
 200 :  $P_{3377} = (0, 2, 12, 1)$   
 201 :  $P_{3403} = (10, 3, 12, 1)$   
 202 :  $P_{3404} = (11, 3, 12, 1)$   
 203 :  $P_{3405} = (12, 3, 12, 1)$   
 204 :  $P_{3411} = (2, 4, 12, 1)$   
 205 :  $P_{3443} = (2, 6, 12, 1)$   
 206 :  $P_{3447} = (6, 6, 12, 1)$   
 207 :  $P_{3450} = (9, 6, 12, 1)$   
 208 :  $P_{3465} = (8, 7, 12, 1)$   
 209 :  $P_{3470} = (13, 7, 12, 1)$   
 210 :  $P_{3484} = (11, 8, 12, 1)$   
 211 :  $P_{3492} = (3, 9, 12, 1)$   
 212 :  $P_{3493} = (4, 9, 12, 1)$   
 213 :  $P_{3499} = (10, 9, 12, 1)$   
 214 :  $P_{3508} = (3, 10, 12, 1)$   
 215 :  $P_{3518} = (13, 10, 12, 1)$

216 :  $P_{3557} = (4, 13, 12, 1)$   
 217 :  $P_{3593} = (8, 15, 12, 1)$   
 218 :  $P_{3594} = (9, 15, 12, 1)$   
 219 :  $P_{3597} = (12, 15, 12, 1)$   
 220 :  $P_{3608} = (7, 0, 13, 1)$   
 221 :  $P_{3641} = (8, 2, 13, 1)$   
 222 :  $P_{3643} = (10, 2, 13, 1)$   
 223 :  $P_{3647} = (14, 2, 13, 1)$   
 224 :  $P_{3660} = (11, 3, 13, 1)$   
 225 :  $P_{3683} = (2, 5, 13, 1)$   
 226 :  $P_{3684} = (3, 5, 13, 1)$   
 227 :  $P_{3694} = (13, 5, 13, 1)$   
 228 :  $P_{3700} = (3, 6, 13, 1)$   
 229 :  $P_{3709} = (12, 6, 13, 1)$   
 230 :  $P_{3715} = (2, 7, 13, 1)$   
 231 :  $P_{3720} = (7, 7, 13, 1)$   
 232 :  $P_{3722} = (9, 7, 13, 1)$   
 233 :  $P_{3739} = (10, 8, 13, 1)$   
 234 :  $P_{3740} = (11, 8, 13, 1)$   
 235 :  $P_{3742} = (13, 8, 13, 1)$   
 236 :  $P_{3745} = (0, 9, 13, 1)$   
 237 :  $P_{3769} = (8, 10, 13, 1)$   
 238 :  $P_{3773} = (12, 10, 13, 1)$   
 239 :  $P_{3807} = (14, 12, 13, 1)$   
 240 :  $P_{3834} = (9, 14, 13, 1)$   
 241 :  $P_{3864} = (7, 0, 14, 1)$   
 242 :  $P_{3894} = (5, 2, 14, 1)$   
 243 :  $P_{3905} = (0, 3, 14, 1)$   
 244 :  $P_{3931} = (10, 4, 14, 1)$   
 245 :  $P_{3974} = (5, 7, 14, 1)$   
 246 :  $P_{3976} = (7, 7, 14, 1)$   
 247 :  $P_{3982} = (13, 7, 14, 1)$   
 248 :  $P_{4030} = (13, 10, 14, 1)$   
 249 :  $P_{4039} = (6, 11, 14, 1)$   
 250 :  $P_{4071} = (6, 13, 14, 1)$   
 251 :  $P_{4091} = (10, 14, 14, 1)$   
 252 :  $P_{4121} = (8, 0, 15, 1)$   
 253 :  $P_{4124} = (11, 0, 15, 1)$   
 254 :  $P_{4126} = (13, 0, 15, 1)$   
 255 :  $P_{4151} = (6, 2, 15, 1)$   
 256 :  $P_{4173} = (12, 3, 15, 1)$   
 257 :  $P_{4183} = (6, 4, 15, 1)$   
 258 :  $P_{4208} = (15, 5, 15, 1)$   
 259 :  $P_{4242} = (1, 8, 15, 1)$   
 260 :  $P_{4248} = (7, 8, 15, 1)$   
 261 :  $P_{4249} = (8, 8, 15, 1)$   
 262 :  $P_{4258} = (1, 9, 15, 1)$   
 263 :  $P_{4277} = (4, 10, 15, 1)$   
 264 :  $P_{4278} = (5, 10, 15, 1)$   
 265 :  $P_{4288} = (15, 10, 15, 1)$   
 266 :  $P_{4300} = (11, 11, 15, 1)$   
 267 :  $P_{4305} = (0, 12, 15, 1)$   
 268 :  $P_{4334} = (13, 13, 15, 1)$   
 269 :  $P_{4341} = (4, 14, 15, 1)$

270 :  $P_{4358} = (5, 15, 15, 1)$   
 271 :  $P_{4360} = (7, 15, 15, 1)$

272 :  $P_{4365} = (12, 15, 15, 1)$

## Line Intersection Graph

]

Neighbor sets in the line intersection graph:

The surface has 273 points:

The points on the surface are:

0 : $P_1 = (0, 1, 0, 0)$	42 : $P_{1048} = (7, 0, 3, 1)$	84 : $P_{1648} = (15, 5, 5, 1)$
1 : $P_{35} = (0, 1, 1, 0)$	43 : $P_{1051} = (10, 0, 3, 1)$	85 : $P_{1694} = (13, 8, 5, 1)$
2 : $P_{45} = (10, 1, 1, 0)$	44 : $P_{1056} = (15, 0, 3, 1)$	86 : $P_{1704} = (7, 9, 5, 1)$
3 : $P_{46} = (11, 1, 1, 0)$	45 : $P_{1082} = (9, 2, 3, 1)$	87 : $P_{1718} = (5, 10, 5, 1)$
4 : $P_{72} = (5, 3, 1, 0)$	46 : $P_{1095} = (6, 3, 3, 1)$	88 : $P_{1727} = (14, 10, 5, 1)$
5 : $P_{107} = (8, 5, 1, 0)$	47 : $P_{1097} = (8, 3, 3, 1)$	89 : $P_{1728} = (15, 10, 5, 1)$
6 : $P_{120} = (5, 6, 1, 0)$	48 : $P_{1101} = (12, 3, 3, 1)$	90 : $P_{1740} = (11, 11, 5, 1)$
7 : $P_{146} = (15, 7, 1, 0)$	49 : $P_{1118} = (13, 4, 3, 1)$	91 : $P_{1757} = (12, 12, 5, 1)$
8 : $P_{162} = (15, 8, 1, 0)$	50 : $P_{1127} = (6, 5, 3, 1)$	92 : $P_{1761} = (0, 13, 5, 1)$
9 : $P_{180} = (1, 10, 1, 0)$	51 : $P_{1137} = (0, 6, 3, 1)$	93 : $P_{1784} = (7, 14, 5, 1)$
10 : $P_{190} = (11, 10, 1, 0)$	52 : $P_{1160} = (7, 7, 3, 1)$	94 : $P_{1798} = (5, 15, 5, 1)$
11 : $P_{196} = (1, 11, 1, 0)$	53 : $P_{1172} = (3, 8, 3, 1)$	95 : $P_{1822} = (13, 0, 6, 1)$
12 : $P_{205} = (10, 11, 1, 0)$	54 : $P_{1198} = (13, 9, 3, 1)$	96 : $P_{1863} = (6, 3, 6, 1)$
13 : $P_{214} = (3, 12, 1, 0)$	55 : $P_{1211} = (10, 10, 3, 1)$	97 : $P_{1871} = (14, 3, 6, 1)$
14 : $P_{235} = (8, 13, 1, 0)$	56 : $P_{1220} = (3, 11, 3, 1)$	98 : $P_{1872} = (15, 3, 6, 1)$
15 : $P_{262} = (3, 15, 1, 0)$	57 : $P_{1225} = (8, 11, 3, 1)$	99 : $P_{1873} = (0, 4, 6, 1)$
16 : $P_{530} = (0, 0, 1, 1)$	58 : $P_{1226} = (9, 11, 3, 1)$	100 : $P_{1895} = (6, 5, 6, 1)$
17 : $P_{588} = (11, 3, 1, 1)$	59 : $P_{1266} = (1, 14, 3, 1)$	101 : $P_{1899} = (10, 5, 6, 1)$
18 : $P_{619} = (10, 5, 1, 1)$	60 : $P_{1282} = (1, 15, 3, 1)$	102 : $P_{1900} = (11, 5, 6, 1)$
19 : $P_{638} = (13, 6, 1, 1)$	61 : $P_{1293} = (12, 15, 3, 1)$	103 : $P_{1930} = (9, 7, 6, 1)$
20 : $P_{653} = (12, 7, 1, 1)$	62 : $P_{1296} = (15, 15, 3, 1)$	104 : $P_{1957} = (4, 9, 6, 1)$
21 : $P_{668} = (11, 8, 1, 1)$	63 : $P_{1303} = (6, 0, 4, 1)$	105 : $P_{1990} = (5, 11, 6, 1)$
22 : $P_{690} = (1, 10, 1, 1)$	64 : $P_{1371} = (10, 4, 4, 1)$	106 : $P_{1992} = (7, 11, 6, 1)$
23 : $P_{695} = (6, 10, 1, 1)$	65 : $P_{1399} = (6, 6, 4, 1)$	107 : $P_{2008} = (7, 12, 6, 1)$
24 : $P_{696} = (7, 10, 1, 1)$	66 : $P_{1405} = (12, 6, 4, 1)$	108 : $P_{2016} = (15, 12, 6, 1)$
25 : $P_{706} = (1, 11, 1, 1)$	67 : $P_{1408} = (15, 6, 4, 1)$	109 : $P_{2021} = (4, 13, 6, 1)$
26 : $P_{717} = (12, 11, 1, 1)$	68 : $P_{1425} = (0, 8, 4, 1)$	110 : $P_{2030} = (13, 13, 6, 1)$
27 : $P_{718} = (13, 11, 1, 1)$	69 : $P_{1456} = (15, 9, 4, 1)$	111 : $P_{2031} = (14, 13, 6, 1)$
28 : $P_{727} = (6, 12, 1, 1)$	70 : $P_{1469} = (12, 10, 4, 1)$	112 : $P_{2038} = (5, 14, 6, 1)$
29 : $P_{744} = (7, 13, 1, 1)$	71 : $P_{1480} = (7, 11, 4, 1)$	113 : $P_{2042} = (9, 14, 6, 1)$
30 : $P_{779} = (10, 15, 1, 1)$	72 : $P_{1496} = (7, 12, 4, 1)$	114 : $P_{2044} = (11, 14, 6, 1)$
31 : $P_{797} = (12, 0, 2, 1)$	73 : $P_{1531} = (10, 14, 4, 1)$	115 : $P_{2059} = (10, 15, 6, 1)$
32 : $P_{828} = (11, 2, 2, 1)$	74 : $P_{1556} = (3, 0, 5, 1)$	116 : $P_{2077} = (12, 0, 7, 1)$
33 : $P_{857} = (8, 4, 2, 1)$	75 : $P_{1564} = (11, 0, 5, 1)$	117 : $P_{2111} = (14, 2, 7, 1)$
34 : $P_{865} = (0, 5, 2, 1)$	76 : $P_{1565} = (12, 0, 5, 1)$	118 : $P_{2131} = (2, 4, 7, 1)$
35 : $P_{910} = (13, 7, 2, 1)$	77 : $P_{1586} = (1, 2, 5, 1)$	119 : $P_{2140} = (11, 4, 7, 1)$
36 : $P_{940} = (11, 9, 2, 1)$	78 : $P_{1602} = (1, 3, 5, 1)$	120 : $P_{2144} = (15, 4, 7, 1)$
37 : $P_{958} = (13, 10, 2, 1)$	79 : $P_{1604} = (3, 3, 5, 1)$	121 : $P_{2155} = (10, 5, 7, 1)$
38 : $P_{968} = (7, 11, 2, 1)$	80 : $P_{1607} = (6, 3, 5, 1)$	122 : $P_{2163} = (2, 6, 7, 1)$
39 : $P_{984} = (7, 12, 2, 1)$	81 : $P_{1631} = (14, 4, 5, 1)$	123 : $P_{2197} = (4, 8, 7, 1)$
40 : $P_{985} = (8, 12, 2, 1)$	82 : $P_{1639} = (6, 5, 5, 1)$	124 : $P_{2198} = (5, 8, 7, 1)$
41 : $P_{989} = (12, 12, 2, 1)$	83 : $P_{1646} = (13, 5, 5, 1)$	125 : $P_{2200} = (7, 8, 7, 1)$

126 : $P_{2247} = (6, 11, 7, 1)$	176 : $P_{2998} = (5, 10, 10, 1)$	226 : $P_{3684} = (3, 5, 13, 1)$
127 : $P_{2256} = (15, 11, 7, 1)$	177 : $P_{3008} = (15, 10, 10, 1)$	227 : $P_{3694} = (13, 5, 13, 1)$
128 : $P_{2261} = (4, 12, 7, 1)$	178 : $P_{3010} = (1, 11, 10, 1)$	228 : $P_{3700} = (3, 6, 13, 1)$
129 : $P_{2269} = (12, 12, 7, 1)$	179 : $P_{3020} = (11, 11, 10, 1)$	229 : $P_{3709} = (12, 6, 13, 1)$
130 : $P_{2271} = (14, 12, 7, 1)$	180 : $P_{3039} = (14, 12, 10, 1)$	230 : $P_{3715} = (2, 7, 13, 1)$
131 : $P_{2278} = (5, 13, 7, 1)$	181 : $P_{3045} = (4, 13, 10, 1)$	231 : $P_{3720} = (7, 7, 13, 1)$
132 : $P_{2279} = (6, 13, 7, 1)$	182 : $P_{3067} = (10, 14, 10, 1)$	232 : $P_{3722} = (9, 7, 13, 1)$
133 : $P_{2289} = (0, 14, 7, 1)$	183 : $P_{3078} = (5, 15, 10, 1)$	233 : $P_{3739} = (10, 8, 13, 1)$
134 : $P_{2312} = (7, 15, 7, 1)$	184 : $P_{3089} = (0, 0, 11, 1)$	234 : $P_{3740} = (11, 8, 13, 1)$
135 : $P_{2315} = (10, 15, 7, 1)$	185 : $P_{3099} = (10, 0, 11, 1)$	235 : $P_{3742} = (13, 8, 13, 1)$
136 : $P_{2316} = (11, 15, 7, 1)$	186 : $P_{3132} = (11, 2, 11, 1)$	236 : $P_{3745} = (0, 9, 13, 1)$
137 : $P_{2326} = (5, 0, 8, 1)$	187 : $P_{3145} = (8, 3, 11, 1)$	237 : $P_{3769} = (8, 10, 13, 1)$
138 : $P_{2327} = (6, 0, 8, 1)$	188 : $P_{3155} = (2, 4, 11, 1)$	238 : $P_{3773} = (12, 10, 13, 1)$
139 : $P_{2331} = (10, 0, 8, 1)$	189 : $P_{3187} = (2, 6, 11, 1)$	239 : $P_{3807} = (14, 12, 13, 1)$
140 : $P_{2365} = (12, 2, 8, 1)$	190 : $P_{3210} = (9, 7, 11, 1)$	240 : $P_{3834} = (9, 14, 13, 1)$
141 : $P_{2377} = (8, 3, 8, 1)$	191 : $P_{3220} = (3, 8, 11, 1)$	241 : $P_{3864} = (7, 0, 14, 1)$
142 : $P_{2386} = (1, 4, 8, 1)$	192 : $P_{3244} = (11, 9, 11, 1)$	242 : $P_{3894} = (5, 2, 14, 1)$
143 : $P_{2402} = (1, 5, 8, 1)$	193 : $P_{3250} = (1, 10, 11, 1)$	243 : $P_{3905} = (0, 3, 14, 1)$
144 : $P_{2406} = (5, 5, 8, 1)$	194 : $P_{3259} = (10, 10, 11, 1)$	244 : $P_{3931} = (10, 4, 14, 1)$
145 : $P_{2414} = (13, 5, 8, 1)$	195 : $P_{3266} = (1, 11, 11, 1)$	245 : $P_{3974} = (5, 7, 14, 1)$
146 : $P_{2423} = (6, 6, 8, 1)$	196 : $P_{3268} = (3, 11, 11, 1)$	246 : $P_{3976} = (7, 7, 14, 1)$
147 : $P_{2433} = (0, 7, 8, 1)$	197 : $P_{3273} = (8, 11, 11, 1)$	247 : $P_{3982} = (13, 7, 14, 1)$
148 : $P_{2452} = (3, 8, 8, 1)$	198 : $P_{3322} = (9, 14, 11, 1)$	248 : $P_{4030} = (13, 10, 14, 1)$
149 : $P_{2456} = (7, 8, 8, 1)$	199 : $P_{3351} = (6, 0, 12, 1)$	249 : $P_{4039} = (6, 11, 14, 1)$
150 : $P_{2462} = (13, 8, 8, 1)$	200 : $P_{3377} = (0, 2, 12, 1)$	250 : $P_{4071} = (6, 13, 14, 1)$
151 : $P_{2467} = (2, 9, 8, 1)$	201 : $P_{3403} = (10, 3, 12, 1)$	251 : $P_{4091} = (10, 14, 14, 1)$
152 : $P_{2491} = (10, 10, 8, 1)$	202 : $P_{3404} = (11, 3, 12, 1)$	252 : $P_{4121} = (8, 0, 15, 1)$
153 : $P_{2499} = (2, 11, 8, 1)$	203 : $P_{3405} = (12, 3, 12, 1)$	253 : $P_{4124} = (11, 0, 15, 1)$
154 : $P_{2500} = (3, 11, 8, 1)$	204 : $P_{3411} = (2, 4, 12, 1)$	254 : $P_{4126} = (13, 0, 15, 1)$
155 : $P_{2505} = (8, 11, 8, 1)$	205 : $P_{3443} = (2, 6, 12, 1)$	255 : $P_{4151} = (6, 2, 15, 1)$
156 : $P_{2557} = (12, 14, 8, 1)$	206 : $P_{3447} = (6, 6, 12, 1)$	256 : $P_{4173} = (12, 3, 15, 1)$
157 : $P_{2568} = (7, 15, 8, 1)$	207 : $P_{3450} = (9, 6, 12, 1)$	257 : $P_{4183} = (6, 4, 15, 1)$
158 : $P_{2590} = (13, 0, 9, 1)$	208 : $P_{3465} = (8, 7, 12, 1)$	258 : $P_{4208} = (15, 5, 15, 1)$
159 : $P_{2620} = (11, 2, 9, 1)$	209 : $P_{3470} = (13, 7, 12, 1)$	259 : $P_{4242} = (1, 8, 15, 1)$
160 : $P_{2685} = (12, 6, 9, 1)$	210 : $P_{3484} = (11, 8, 12, 1)$	260 : $P_{4248} = (7, 8, 15, 1)$
161 : $P_{2732} = (11, 9, 9, 1)$	211 : $P_{3492} = (3, 9, 12, 1)$	261 : $P_{4249} = (8, 8, 15, 1)$
162 : $P_{2749} = (12, 10, 9, 1)$	212 : $P_{3493} = (4, 9, 12, 1)$	262 : $P_{4258} = (1, 9, 15, 1)$
163 : $P_{2759} = (6, 11, 9, 1)$	213 : $P_{3499} = (10, 9, 12, 1)$	263 : $P_{4277} = (4, 10, 15, 1)$
164 : $P_{2788} = (3, 13, 9, 1)$	214 : $P_{3508} = (3, 10, 12, 1)$	264 : $P_{4278} = (5, 10, 15, 1)$
165 : $P_{2791} = (6, 13, 9, 1)$	215 : $P_{3518} = (13, 10, 12, 1)$	265 : $P_{4288} = (15, 10, 15, 1)$
166 : $P_{2798} = (13, 13, 9, 1)$	216 : $P_{3557} = (4, 13, 12, 1)$	266 : $P_{4300} = (11, 11, 15, 1)$
167 : $P_{2804} = (3, 14, 9, 1)$	217 : $P_{3593} = (8, 15, 12, 1)$	267 : $P_{4305} = (0, 12, 15, 1)$
168 : $P_{2817} = (0, 15, 9, 1)$	218 : $P_{3594} = (9, 15, 12, 1)$	268 : $P_{4334} = (13, 13, 15, 1)$
169 : $P_{2833} = (0, 0, 10, 1)$	219 : $P_{3597} = (12, 15, 12, 1)$	269 : $P_{4341} = (4, 14, 15, 1)$
170 : $P_{2844} = (11, 0, 10, 1)$	220 : $P_{3608} = (7, 0, 13, 1)$	270 : $P_{4358} = (5, 15, 15, 1)$
171 : $P_{2879} = (14, 2, 10, 1)$	221 : $P_{3641} = (8, 2, 13, 1)$	271 : $P_{4360} = (7, 15, 15, 1)$
172 : $P_{2907} = (10, 4, 10, 1)$	222 : $P_{3643} = (10, 2, 13, 1)$	272 : $P_{4365} = (12, 15, 15, 1)$
173 : $P_{2928} = (15, 5, 10, 1)$	223 : $P_{3647} = (14, 2, 13, 1)$	
174 : $P_{2981} = (4, 9, 10, 1)$	224 : $P_{3660} = (11, 3, 13, 1)$	
175 : $P_{2994} = (1, 10, 10, 1)$	225 : $P_{3683} = (2, 5, 13, 1)$	