Rank-74263 over GF(16)

January 15, 2021

The equation

The equation of the surface is:

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

(0, 0, 1, 0, 1, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 0, 0) The point rank of the equation over GF(16) is 286396949

General information

Number of lines	0
Number of points	225
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	225
Number of Hesse planes	0
Number of axes	0
Type of points on lines	
Type of lines on points	0^{225}

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

```
0: P_0 = (1, 0, 0, 0)
                                                                  27: P_{646} = (5,7,1,1)
1: P_1 = (0, 1, 0, 0)
                                                                  28: P_{651} = (10, 7, 1, 1)
2: P_3 = (0,0,0,1)
                                                                  29: P_{694} = (5, 10, 1, 1)
3: P_{45} = (10, 1, 1, 0)
                                                                  30: P_{704} = (15, 10, 1, 1)
4: P_{46} = (11, 1, 1, 0)
                                                                  31: P_{708} = (3, 11, 1, 1)
5: P_{65} = (14, 2, 1, 0)
                                                                  32: P_{713} = (8, 11, 1, 1)
6: P_{66} = (15, 2, 1, 0)
                                                                  33: P_{729} = (8, 12, 1, 1)
7: P_{85} = (2, 4, 1, 0)
                                                                  34: P_{732} = (11, 12, 1, 1)
8: P_{86} = (3, 4, 1, 0)
                                                                  35: P_{740} = (3, 13, 1, 1)
9: P_{167} = (4, 9, 1, 0)
                                                                  36: P_{748} = (11, 13, 1, 1)
10: P_{168} = (5, 9, 1, 0)
                                                                  37: P_{793} = (8,0,2,1)
11: P_{185} = (6, 10, 1, 0)
                                                                  38: P_{814} = (13, 1, 2, 1)
12: P_{186} = (7, 10, 1, 0)
                                                                  39: P_{815} = (14, 1, 2, 1)
13: P_{207} = (12, 11, 1, 0)
                                                                  40: P_{865} = (0, 5, 2, 1)
14: P_{208} = (13, 11, 1, 0)
                                                                  41: P_{878} = (13, 5, 2, 1)
15: P_{251} = (8, 14, 1, 0)
                                                                  42: P_{889} = (8, 6, 2, 1)
16: P_{252} = (9, 14, 1, 0)
                                                                  43: P_{895} = (14, 6, 2, 1)
17: P_{300} = (10, 1, 0, 1)
                                                                  44: P_{963} = (2, 11, 2, 1)
                                                                  45: P_{971} = (10, 11, 2, 1)
18: P_{301} = (11, 1, 0, 1)
19: P_{435} = (1, 10, 0, 1)
                                                                  46: P_{980} = (3, 12, 2, 1)
20: P_{444} = (10, 10, 0, 1)
                                                                  47: P_{994} = (1, 13, 2, 1)
21: P_{451} = (1, 11, 0, 1)
                                                                  48: P_{1003} = (10, 13, 2, 1)
22: P_{461} = (11, 11, 0, 1)
                                                                  49: P_{1010} = (1, 14, 2, 1)
23: P_{531} = (1, 0, 1, 1)
                                                                  50: P_{1013} = (4, 14, 2, 1)
24: P_{546} = (0, 1, 1, 1)
                                                                  51: P_{1028} = (3, 15, 2, 1)
25: P_{635} = (10, 6, 1, 1)
                                                                  52: P_{1029} = (4, 15, 2, 1)
26: P_{640} = (15, 6, 1, 1)
                                                                  53: P_{1056} = (15, 0, 3, 1)
```

```
54: P_{1078} = (5, 2, 3, 1)
                                                                 108: P_{2055} = (6, 15, 6, 1)
55: P_{1083} = (10, 2, 3, 1)
                                                                 109: P_{2080} = (15, 0, 7, 1)
                                                                 110: P_{2133} = (4, 4, 7, 1)
56: P_{1126} = (5, 5, 3, 1)
                                                                 111: P_{2134} = (5, 4, 7, 1)
57: P_{1130} = (9, 5, 3, 1)
58: P_{1156} = (3,7,3,1)
                                                                 112: P_{2152} = (7, 5, 7, 1)
59: P_{1167} = (14, 7, 3, 1)
                                                                 113: P_{2160} = (15, 5, 7, 1)
60: P_{1169} = (0, 8, 3, 1)
                                                                 114: P_{2193} = (0, 8, 7, 1)
61: P_{1192} = (7, 9, 3, 1)
                                                                 115: P_{2197} = (4, 8, 7, 1)
62: P_{1194} = (9, 9, 3, 1)
                                                                 116: P_{2294} = (5, 14, 7, 1)
63: P_{1223} = (6, 11, 3, 1)
                                                                 117: P_{2326} = (5, 0, 8, 1)
64: P_{1232} = (15, 11, 3, 1)
                                                                 118: P_{2355} = (2, 2, 8, 1)
65: P_{1239} = (6, 12, 3, 1)
                                                                 119: P_{2359} = (6, 2, 8, 1)
66: P_{1240} = (7, 12, 3, 1)
                                                                 120: P_{2369} = (0, 3, 8, 1)
67: P_{1275} = (10, 14, 3, 1)
                                                                 121: P_{2389} = (4, 4, 8, 1)
                                                                 122: P_{2395} = (10, 4, 8, 1)
68: P_{1279} = (14, 14, 3, 1)
69: P_{1312} = (15, 0, 4, 1)
                                                                 123: P_{2421} = (4, 6, 8, 1)
70: P_{1315} = (2, 1, 4, 1)
                                                                 124: P_{2425} = (8, 6, 8, 1)
                                                                 125: P_{2475} = (10, 9, 8, 1)
71: P_{1320} = (7, 1, 4, 1)
                                                                 126: P_{2480} = (15, 9, 8, 1)
72: P_{1330} = (1, 2, 4, 1)
73: P_{1338} = (9, 2, 4, 1)
                                                                 127: P_{2502} = (5, 11, 8, 1)
74: P_{1350} = (5, 3, 4, 1)
                                                                 128: P_{2504} = (7, 11, 8, 1)
                                                                 129: P_{2535} = (6, 13, 8, 1)
75: P_{1354} = (9, 3, 4, 1)
                                                                 130: P_{2536} = (7, 13, 8, 1)
76: P_{1398} = (5, 6, 4, 1)
77: P_{1410} = (1,7,4,1)
                                                                 131: P_{2563} = (2, 15, 8, 1)
78: P_{1420} = (11, 7, 4, 1)
                                                                 132: P_{2576} = (15, 15, 8, 1)
79: P_{1425} = (0, 8, 4, 1)
                                                                 133: P_{2580} = (3, 0, 9, 1)
                                                                 134: P_{2597} = (4, 1, 9, 1)
80: P_{1432} = (7, 8, 4, 1)
81: P_{1461} = (4, 10, 4, 1)
                                                                 135: P_{2605} = (12, 1, 9, 1)
82: P_{1468} = (11, 10, 4, 1)
                                                                 136: P_{2642} = (1, 4, 9, 1)
83: P_{1507} = (2, 13, 4, 1)
                                                                 137: P_{2655} = (14, 4, 9, 1)
84: P_{1520} = (15, 13, 4, 1)
                                                                 138: P_{2665} = (8, 5, 9, 1)
85: P_{1556} = (3, 0, 5, 1)
                                                                 139: P_{2671} = (14, 5, 9, 1)
86: P_{1587} = (2, 2, 5, 1)
                                                                 140: P_{2692} = (3,7,9,1)
87: P_{1596} = (11, 2, 5, 1)
                                                                 141: P_{2693} = (4,7,9,1)
88: P_{1625} = (8, 4, 5, 1)
                                                                 142: P_{2762} = (9, 11, 9, 1)
89: P_{1628} = (11, 4, 5, 1)
                                                                 143: P_{2763} = (10, 11, 9, 1)
90: P_{1661} = (12, 6, 5, 1)
                                                                 144: P_{2770} = (1, 12, 9, 1)
                                                                 145: P_{2779} = (10, 12, 9, 1)
91: P_{1662} = (13, 6, 5, 1)
92: P_{1689} = (8, 8, 5, 1)
                                                                 146: P_{2793} = (8, 13, 9, 1)
93: P_{1695} = (14, 8, 5, 1)
                                                                 147: P_{2817} = (0, 15, 9, 1)
94: P_{1716} = (3, 10, 5, 1)
                                                                 148: P_{2829} = (12, 15, 9, 1)
                                                                 149: P_{2834} = (1, 0, 10, 1)
95: P_{1726} = (13, 10, 5, 1)
96: P_{1747} = (2, 12, 5, 1)
                                                                 150: P_{2849} = (0, 1, 10, 1)
97: P_{1750} = (5, 12, 5, 1)
                                                                 151: P_{2860} = (11, 1, 10, 1)
98: P_{1789} = (12, 14, 5, 1)
                                                                 152: P_{2916} = (3, 5, 10, 1)
99: P_{1791} = (14, 14, 5, 1)
                                                                 153: P_{2919} = (6, 5, 10, 1)
100: P_{1793} = (0, 15, 5, 1)
                                                                 154: P_{2935} = (6, 6, 10, 1)
101: P_{1814} = (5, 0, 6, 1)
                                                                 155: P_{2937} = (8, 6, 10, 1)
102: P_{1857} = (0, 3, 6, 1)
                                                                 156: P_{2948} = (3, 7, 10, 1)
103: P_{1871} = (14, 3, 6, 1)
                                                                 157: P_{2952} = (7, 7, 10, 1)
104: P_{1888} = (15, 4, 6, 1)
                                                                 158: P_{3003} = (10, 10, 10, 1)
105: P_{2047} = (14, 14, 6, 1)
                                                                 159: P_{3004} = (11, 10, 10, 1)
106: P_{2048} = (15, 14, 6, 1)
                                                                 160: P_{3010} = (1, 11, 10, 1)
107: P_{2054} = (5, 15, 6, 1)
                                                                 161: P_{3080} = (7, 15, 10, 1)
```

```
162: P_{3081} = (8, 15, 10, 1)
                                                                 194: P_{3879} = (6, 1, 14, 1)
163: P_{3090} = (1, 0, 11, 1)
                                                                 195: P_{3882} = (9, 1, 14, 1)
                                                                 196: P_{3905} = (0, 3, 14, 1)
164: P_{3105} = (0, 1, 11, 1)
165: P_{3115} = (10, 1, 11, 1)
                                                                 197: P_{3911} = (6, 3, 14, 1)
166: P_{3149} = (12, 3, 11, 1)
                                                                 198: P_{3954} = (1, 6, 14, 1)
167: P_{3152} = (15, 3, 11, 1)
                                                                 199: P_{3964} = (11, 6, 14, 1)
168: P_{3222} = (5, 8, 11, 1)
                                                                 200: P_{3984} = (15, 7, 14, 1)
169: P_{3230} = (13, 8, 11, 1)
                                                                 201: P_{3987} = (2, 8, 14, 1)
170: P_{3250} = (1, 10, 11, 1)
                                                                 202: P_{4000} = (15, 8, 14, 1)
171: P_{3275} = (10, 11, 11, 1)
                                                                 203: P_{4002} = (1, 9, 14, 1)
172: P_{3276} = (11, 11, 11, 1)
                                                                 204: P_{4003} = (2, 9, 14, 1)
173: P_{3286} = (5, 12, 11, 1)
                                                                 205: P_{4028} = (11, 10, 14, 1)
174: P_{3293} = (12, 12, 11, 1)
                                                                 206: P_{4031} = (14, 10, 14, 1)
175: P_{3310} = (13, 13, 11, 1)
                                                                 207: P_{4054} = (5, 12, 14, 1)
                                                                 208: P_{4058} = (9, 12, 14, 1)
176: P_{3312} = (15, 13, 11, 1)
177: P_{3348} = (3, 0, 12, 1)
                                                                 209: P_{4121} = (8, 0, 15, 1)
178: P_{3385} = (8, 2, 12, 1)
                                                                 210: P_{4164} = (3, 3, 15, 1)
179: P_{3476} = (3, 8, 12, 1)
                                                                 211: P_{4165} = (4, 3, 15, 1)
180: P_{3485} = (12, 8, 12, 1)
                                                                 212: P_{4181} = (4, 4, 15, 1)
181: P_{3497} = (8, 9, 12, 1)
                                                                 213: P_{4190} = (13, 4, 15, 1)
182: P_{3498} = (9, 9, 12, 1)
                                                                 214: P_{4193} = (0, 5, 15, 1)
                                                                 215: P_{4237} = (12, 7, 15, 1)
183: P_{3585} = (0, 15, 12, 1)
184: P_{3594} = (9, 15, 12, 1)
                                                                 216: P_{4238} = (13, 7, 15, 1)
185: P_{3609} = (8, 0, 13, 1)
                                                                 217: P_{4266} = (9, 9, 15, 1)
186: P_{3635} = (2, 2, 13, 1)
                                                                 218: P_{4268} = (11, 9, 15, 1)
187: P_{3636} = (3, 2, 13, 1)
                                                                 219: P_{4281} = (8, 10, 15, 1)
188: P_{3657} = (8, 3, 13, 1)
                                                                 220: P_{4285} = (12, 10, 15, 1)
189: P_{3662} = (13, 3, 13, 1)
                                                                 221: P_{4330} = (9, 13, 15, 1)
                                                                 222: P_{4336} = (15, 13, 15, 1)
190: P_{3681} = (0, 5, 13, 1)
191: P_{3683} = (2, 5, 13, 1)
                                                                 223: P_{4340} = (3, 14, 15, 1)
                                                                 224: P_{4348} = (11, 14, 15, 1)
192: P_{3748} = (3, 9, 13, 1)
193: P_{3862} = (5, 0, 14, 1)
```

Line Intersection Graph

Neighbor sets in the line intersection graph:

The surface has 225 points:

The points on the surface are:

```
0: P_0 = (1,0,0,0)
                                            12: P_{186} = (7, 10, 1, 0)
                                                                                        24: P_{546} = (0, 1, 1, 1)
1: P_1 = (0, 1, 0, 0)
                                            13: P_{207} = (12, 11, 1, 0)
                                                                                        25: P_{635} = (10, 6, 1, 1)
2: P_3 = (0,0,0,1)
                                            14: P_{208} = (13, 11, 1, 0)
                                                                                        26: P_{640} = (15, 6, 1, 1)
3: P_{45} = (10, 1, 1, 0)
                                            15: P_{251} = (8, 14, 1, 0)
                                                                                        27: P_{646} = (5, 7, 1, 1)
4: P_{46} = (11, 1, 1, 0)
                                            16: P_{252} = (9, 14, 1, 0)
                                                                                        28: P_{651} = (10, 7, 1, 1)
5: P_{65} = (14, 2, 1, 0)
                                            17: P_{300} = (10, 1, 0, 1)
                                                                                        29: P_{694} = (5, 10, 1, 1)
                                                                                        30: P_{704} = (15, 10, 1, 1)
6: P_{66} = (15, 2, 1, 0)
                                            18: P_{301} = (11, 1, 0, 1)
7: P_{85} = (2, 4, 1, 0)
                                            19: P_{435} = (1, 10, 0, 1)
                                                                                        31: P_{708} = (3, 11, 1, 1)
8: P_{86} = (3, 4, 1, 0)
                                            20: P_{444} = (10, 10, 0, 1)
                                                                                        32: P_{713} = (8, 11, 1, 1)
9: P_{167} = (4, 9, 1, 0)
                                            21: P_{451} = (1, 11, 0, 1)
                                                                                        33: P_{729} = (8, 12, 1, 1)
10: P_{168} = (5, 9, 1, 0)
                                            22: P_{461} = (11, 11, 0, 1)
                                                                                        34: P_{732} = (11, 12, 1, 1)
11: P_{185} = (6, 10, 1, 0)
                                            23: P_{531} = (1,0,1,1)
                                                                                        35: P_{740} = (3, 13, 1, 1)
```

```
36: P_{748} = (11, 13, 1, 1)
                                           90: P_{1661} = (12, 6, 5, 1)
                                                                                       144: P_{2770} = (1, 12, 9, 1)
                                                                                       145: P_{2779} = (10, 12, 9, 1)
37: P_{793} = (8,0,2,1)
                                            91: P_{1662} = (13, 6, 5, 1)
38: P_{814} = (13, 1, 2, 1)
                                            92: P_{1689} = (8, 8, 5, 1)
                                                                                        146: P_{2793} = (8, 13, 9, 1)
39: P_{815} = (14, 1, 2, 1)
                                                                                       147: P_{2817} = (0, 15, 9, 1)
                                           93: P_{1695} = (14, 8, 5, 1)
40: P_{865} = (0, 5, 2, 1)
                                           94: P_{1716} = (3, 10, 5, 1)
                                                                                       148: P_{2829} = (12, 15, 9, 1)
                                                                                       149: P_{2834} = (1, 0, 10, 1)
41: P_{878} = (13, 5, 2, 1)
                                           95: P_{1726} = (13, 10, 5, 1)
42: P_{889} = (8, 6, 2, 1)
                                           96: P_{1747} = (2, 12, 5, 1)
                                                                                       150: P_{2849} = (0, 1, 10, 1)
43: P_{895} = (14, 6, 2, 1)
                                            97: P_{1750} = (5, 12, 5, 1)
                                                                                       151: P_{2860} = (11, 1, 10, 1)
44: P_{963} = (2, 11, 2, 1)
                                           98: P_{1789} = (12, 14, 5, 1)
                                                                                       152: P_{2916} = (3, 5, 10, 1)
45: P_{971} = (10, 11, 2, 1)
                                            99: P_{1791} = (14, 14, 5, 1)
                                                                                       153: P_{2919} = (6, 5, 10, 1)
46: P_{980} = (3, 12, 2, 1)
                                           100: P_{1793} = (0, 15, 5, 1)
                                                                                       154: P_{2935} = (6, 6, 10, 1)
47: P_{994} = (1, 13, 2, 1)
                                           101: P_{1814} = (5, 0, 6, 1)
                                                                                       155: P_{2937} = (8, 6, 10, 1)
48: P_{1003} = (10, 13, 2, 1)
                                           102: P_{1857} = (0, 3, 6, 1)
                                                                                       156: P_{2948} = (3, 7, 10, 1)
                                           103: P_{1871} = (14, 3, 6, 1)
49: P_{1010} = (1, 14, 2, 1)
                                                                                       157: P_{2952} = (7, 7, 10, 1)
                                                                                       158: P_{3003} = (10, 10, 10, 1)
50: P_{1013} = (4, 14, 2, 1)
                                           104: P_{1888} = (15, 4, 6, 1)
51: P_{1028} = (3, 15, 2, 1)
                                           105: P_{2047} = (14, 14, 6, 1)
                                                                                       159: P_{3004} = (11, 10, 10, 1)
52: P_{1029} = (4, 15, 2, 1)
                                           106: P_{2048} = (15, 14, 6, 1)
                                                                                       160: P_{3010} = (1, 11, 10, 1)
53: P_{1056} = (15, 0, 3, 1)
                                           107: P_{2054} = (5, 15, 6, 1)
                                                                                       161: P_{3080} = (7, 15, 10, 1)
54: P_{1078} = (5, 2, 3, 1)
                                           108: P_{2055} = (6, 15, 6, 1)
                                                                                       162: P_{3081} = (8, 15, 10, 1)
55: P_{1083} = (10, 2, 3, 1)
                                           109: P_{2080} = (15, 0, 7, 1)
                                                                                       163: P_{3090} = (1, 0, 11, 1)
56: P_{1126} = (5, 5, 3, 1)
                                           110: P_{2133} = (4, 4, 7, 1)
                                                                                       164: P_{3105} = (0, 1, 11, 1)
                                                                                       165: P_{3115} = (10, 1, 11, 1)
57: P_{1130} = (9, 5, 3, 1)
                                           111: P_{2134} = (5, 4, 7, 1)
                                                                                       166: P_{3149} = (12, 3, 11, 1)
58: P_{1156} = (3,7,3,1)
                                           112: P_{2152} = (7, 5, 7, 1)
59: P_{1167} = (14, 7, 3, 1)
                                           113: P_{2160} = (15, 5, 7, 1)
                                                                                       167: P_{3152} = (15, 3, 11, 1)
60: P_{1169} = (0, 8, 3, 1)
                                           114: P_{2193} = (0, 8, 7, 1)
                                                                                        168: P_{3222} = (5, 8, 11, 1)
61: P_{1192} = (7, 9, 3, 1)
                                           115: P_{2197} = (4, 8, 7, 1)
                                                                                       169: P_{3230} = (13, 8, 11, 1)
                                           116: P_{2294} = (5, 14, 7, 1)
                                                                                       170: P_{3250} = (1, 10, 11, 1)
62: P_{1194} = (9, 9, 3, 1)
63: P_{1223} = (6, 11, 3, 1)
                                           117: P_{2326} = (5, 0, 8, 1)
                                                                                       171: P_{3275} = (10, 11, 11, 1)
                                           118: P_{2355} = (2, 2, 8, 1)
                                                                                       172: P_{3276} = (11, 11, 11, 1)
64: P_{1232} = (15, 11, 3, 1)
65: P_{1239} = (6, 12, 3, 1)
                                           119: P_{2359} = (6, 2, 8, 1)
                                                                                       173: P_{3286} = (5, 12, 11, 1)
66: P_{1240} = (7, 12, 3, 1)
                                           120: P_{2369} = (0, 3, 8, 1)
                                                                                       174: P_{3293} = (12, 12, 11, 1)
67: P_{1275} = (10, 14, 3, 1)
                                           121: P_{2389} = (4, 4, 8, 1)
                                                                                       175: P_{3310} = (13, 13, 11, 1)
68: P_{1279} = (14, 14, 3, 1)
                                           122: P_{2395} = (10, 4, 8, 1)
                                                                                       176: P_{3312} = (15, 13, 11, 1)
69: P_{1312} = (15, 0, 4, 1)
                                           123: P_{2421} = (4, 6, 8, 1)
                                                                                       177: P_{3348} = (3, 0, 12, 1)
                                           124: P_{2425} = (8, 6, 8, 1)
70: P_{1315} = (2, 1, 4, 1)
                                                                                       178: P_{3385} = (8, 2, 12, 1)
                                           125: P_{2475} = (10, 9, 8, 1)
                                                                                       179: P_{3476} = (3, 8, 12, 1)
71: P_{1320} = (7, 1, 4, 1)
72: P_{1330} = (1, 2, 4, 1)
                                           126: P_{2480} = (15, 9, 8, 1)
                                                                                       180: P_{3485} = (12, 8, 12, 1)
                                           127: P_{2502} = (5, 11, 8, 1)
                                                                                       181: P_{3497} = (8, 9, 12, 1)
73: P_{1338} = (9, 2, 4, 1)
74: P_{1350} = (5, 3, 4, 1)
                                           128: P_{2504} = (7, 11, 8, 1)
                                                                                       182: P_{3498} = (9, 9, 12, 1)
75: P_{1354} = (9, 3, 4, 1)
                                           129: P_{2535} = (6, 13, 8, 1)
                                                                                       183: P_{3585} = (0, 15, 12, 1)
76: P_{1398} = (5, 6, 4, 1)
                                           130: P_{2536} = (7, 13, 8, 1)
                                                                                       184: P_{3594} = (9, 15, 12, 1)
                                           131: P_{2563} = (2, 15, 8, 1)
                                                                                       185: P_{3609} = (8, 0, 13, 1)
77: P_{1410} = (1,7,4,1)
78: P_{1420} = (11, 7, 4, 1)
                                           132: P_{2576} = (15, 15, 8, 1)
                                                                                       186: P_{3635} = (2, 2, 13, 1)
79: P_{1425} = (0, 8, 4, 1)
                                           133: P_{2580} = (3, 0, 9, 1)
                                                                                       187: P_{3636} = (3, 2, 13, 1)
80: P_{1432} = (7, 8, 4, 1)
                                           134: P_{2597} = (4, 1, 9, 1)
                                                                                       188: P_{3657} = (8, 3, 13, 1)
                                           135: P_{2605} = (12, 1, 9, 1)
                                                                                       189: P_{3662} = (13, 3, 13, 1)
81: P_{1461} = (4, 10, 4, 1)
82: P_{1468} = (11, 10, 4, 1)
                                           136: P_{2642} = (1, 4, 9, 1)
                                                                                       190: P_{3681} = (0, 5, 13, 1)
83: P_{1507} = (2, 13, 4, 1)
                                           137: P_{2655} = (14, 4, 9, 1)
                                                                                       191: P_{3683} = (2, 5, 13, 1)
84: P_{1520} = (15, 13, 4, 1)
                                                                                       192: P_{3748} = (3, 9, 13, 1)
                                           138: P_{2665} = (8, 5, 9, 1)
85: P_{1556} = (3, 0, 5, 1)
                                           139: P_{2671} = (14, 5, 9, 1)
                                                                                       193: P_{3862} = (5, 0, 14, 1)
                                                                                       194: P_{3879} = (6, 1, 14, 1)
86: P_{1587} = (2, 2, 5, 1)
                                           140: P_{2692} = (3,7,9,1)
87: P_{1596} = (11, 2, 5, 1)
                                           141: P_{2693} = (4,7,9,1)
                                                                                       195: P_{3882} = (9, 1, 14, 1)
88: P_{1625} = (8, 4, 5, 1)
                                           142: P_{2762} = (9, 11, 9, 1)
                                                                                       196: P_{3905} = (0, 3, 14, 1)
89: P_{1628} = (11, 4, 5, 1)
                                           143: P_{2763} = (10, 11, 9, 1)
                                                                                       197: P_{3911} = (6, 3, 14, 1)
```

```
218: P_{4268} = (11, 9, 15, 1)
198: P_{3954} = (1, 6, 14, 1)
                                           208: P_{4058} = (9, 12, 14, 1)
                                           209: P_{4121} = (8, 0, 15, 1)
                                                                                      219: P_{4281} = (8, 10, 15, 1)
199: P_{3964} = (11, 6, 14, 1)
                                                                                      220: P_{4285} = (12, 10, 15, 1)
200: P_{3984} = (15, 7, 14, 1)
                                           210: P_{4164} = (3, 3, 15, 1)
201: P_{3987} = (2, 8, 14, 1)
                                           211: P_{4165} = (4, 3, 15, 1)
                                                                                      221: P_{4330} = (9, 13, 15, 1)
202: P_{4000} = (15, 8, 14, 1)
                                           212: P_{4181} = (4, 4, 15, 1)
                                                                                      222: P_{4336} = (15, 13, 15, 1)
203: P_{4002} = (1, 9, 14, 1)
                                           213: P_{4190} = (13, 4, 15, 1)
                                                                                      223: P_{4340} = (3, 14, 15, 1)
204: P_{4003} = (2, 9, 14, 1)
                                           214: P_{4193} = (0, 5, 15, 1)
                                                                                      224: P_{4348} = (11, 14, 15, 1)
205: P_{4028} = (11, 10, 14, 1)
                                           215: P_{4237} = (12, 7, 15, 1)
206: P_{4031} = (14, 10, 14, 1)
                                           216: P_{4238} = (13, 7, 15, 1)
207: P_{4054} = (5, 12, 14, 1)
                                           217: P_{4266} = (9, 9, 15, 1)
```