# Rank-67150 over GF(16)

January 15, 2021

## The equation

The equation of the surface is:

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

( 1, 1, 0, 1, 0, 0, 1, 0, 0, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0 ) The point rank of the equation over GF(16) is 303112486

## 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:

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0: P_2 = (0, 0, 1, 0)
                                                                  27: P_{420} = (2, 9, 0, 1)
1: P_5 = (1, 1, 0, 0)
                                                                  28: P_{439} = (5, 10, 0, 1)
2: P_{14} = (10, 1, 0, 0)
                                                                  29: P_{445} = (11, 10, 0, 1)
3: P_{15} = (11, 1, 0, 0)
                                                                  30: P_{449} = (15, 10, 0, 1)
4: P_{20} = (1,0,1,0)
                                                                  31: P_{453} = (3, 11, 0, 1)
5: P_{36} = (1, 1, 1, 0)
                                                                  32: P_{458} = (8, 11, 0, 1)
6: P_{45} = (10, 1, 1, 0)
                                                                  33: P_{460} = (10, 11, 0, 1)
7: P_{46} = (11, 1, 1, 0)
                                                                  34: P_{502} = (4, 14, 0, 1)
8: P_{82} = (15, 3, 1, 0)
                                                                  35: P_{517} = (3, 15, 0, 1)
9: P_{102} = (3, 5, 1, 0)
                                                                  36: P_{522} = (8, 15, 0, 1)
10: P_{125} = (10, 6, 1, 0)
                                                                  37: P_{524} = (10, 15, 0, 1)
11: P_{141} = (10, 7, 1, 0)
                                                                  38: P_{531} = (1,0,1,1)
12: P_{152} = (5, 8, 1, 0)
                                                                  39: P_{571} = (10, 2, 1, 1)
                                                                  40: P_{604} = (11, 4, 1, 1)
13: P_{222} = (11, 12, 1, 0)
14: P_{238} = (11, 13, 1, 0)
                                                                  41: P_{630} = (5, 6, 1, 1)
15: P_{267} = (8, 15, 1, 0)
                                                                  42: P_{656} = (15, 7, 1, 1)
16: P_{315} = (9, 2, 0, 1)
                                                                  43: P_{683} = (10, 9, 1, 1)
                                                                  44: P_{690} = (1, 10, 1, 1)
17: P_{327} = (5, 3, 0, 1)
18: P_{333} = (11, 3, 0, 1)
                                                                  45: P_{699} = (10, 10, 1, 1)
19: P_{337} = (15, 3, 0, 1)
                                                                  46: P_{706} = (1, 11, 1, 1)
20: P_{352} = (14, 4, 0, 1)
                                                                  47: P_{716} = (11, 11, 1, 1)
21: P_{357} = (3, 5, 0, 1)
                                                                  48: P_{724} = (3, 12, 1, 1)
22: P_{362} = (8, 5, 0, 1)
                                                                  49: P_{745} = (8, 13, 1, 1)
23: P_{364} = (10, 5, 0, 1)
                                                                  50: P_{764} = (11, 14, 1, 1)
24: P_{407} = (5, 8, 0, 1)
                                                                  51: P_{793} = (8,0,2,1)
25: P_{413} = (11, 8, 0, 1)
                                                                  52: P_{826} = (9, 2, 2, 1)
26: P_{417} = (15, 8, 0, 1)
                                                                  53: P_{852} = (3,4,2,1)
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108: P_{2032} = (15, 13, 6, 1)
54: P_{888} = (7, 6, 2, 1)
55: P_{902} = (5,7,2,1)
                                                                 109: P_{2042} = (9, 14, 6, 1)
56: P_{920} = (7, 8, 2, 1)
                                                                 110: P_{2085} = (4, 1, 7, 1)
                                                                 111: P_{2092} = (11, 1, 7, 1)
57: P_{990} = (13, 12, 2, 1)
58: P_{1003} = (10, 13, 2, 1)
                                                                 112: P_{2095} = (14, 1, 7, 1)
59: P_{1027} = (2, 15, 2, 1)
                                                                 113: P_{2104} = (7, 2, 7, 1)
60: P_{1029} = (4, 15, 2, 1)
                                                                 114: P_{2117} = (4, 3, 7, 1)
61: P_{1032} = (7, 15, 2, 1)
                                                                 115: P_{2122} = (9, 3, 7, 1)
62: P_{1048} = (7,0,3,1)
                                                                 116: P_{2125} = (12, 3, 7, 1)
63: P_{1083} = (10, 2, 3, 1)
                                                                 117: P_{2131} = (2, 4, 7, 1)
64: P_{1094} = (5, 3, 3, 1)
                                                                 118: P_{2166} = (5, 6, 7, 1)
65: P_{1100} = (11, 3, 3, 1)
                                                                 119: P_{2228} = (3, 10, 7, 1)
66: P_{1104} = (15, 3, 3, 1)
                                                                 120: P_{2246} = (5, 11, 7, 1)
67: P_{1107} = (2,4,3,1)
                                                                 121: P_{2262} = (5, 12, 7, 1)
68: P_{1122} = (1, 5, 3, 1)
                                                                 122: P_{2297} = (8, 14, 7, 1)
69: P_{1132} = (11, 5, 3, 1)
                                                                 123: P_{2306} = (1, 15, 7, 1)
                                                                 124: P_{2316} = (11, 15, 7, 1)
70: P_{1164} = (11, 7, 3, 1)
                                                                 125: P_{2327} = (6, 0, 8, 1)
71: P_{1252} = (3, 13, 3, 1)
                                                                 126: P_{2397} = (12, 4, 8, 1)
72: P_{1278} = (13, 14, 3, 1)
73: P_{1312} = (15, 0, 4, 1)
                                                                 127: P_{2428} = (11, 6, 8, 1)
74: P_{1349} = (4, 3, 4, 1)
                                                                 128: P_{2454} = (5, 8, 8, 1)
75: P_{1354} = (9, 3, 4, 1)
                                                                 129: P_{2460} = (11, 8, 8, 1)
76: P_{1357} = (12, 3, 4, 1)
                                                                 130: P_{2464} = (15, 8, 8, 1)
77: P_{1375} = (14, 4, 4, 1)
                                                                 131: P_{2475} = (10, 9, 8, 1)
78: P_{1400} = (7, 6, 4, 1)
                                                                 132: P_{2521} = (8, 12, 8, 1)
79: P_{1420} = (11, 7, 4, 1)
                                                                 133: P_{2554} = (9, 14, 8, 1)
                                                                 134: P_{2562} = (1, 15, 8, 1)
80: P_{1446} = (5, 9, 4, 1)
81: P_{1497} = (8, 12, 4, 1)
                                                                 135: P_{2572} = (11, 15, 8, 1)
82: P_{1517} = (12, 13, 4, 1)
                                                                 136: P_{2580} = (3, 0, 9, 1)
83: P_{1549} = (12, 15, 4, 1)
                                                                 137: P_{2631} = (6, 3, 9, 1)
84: P_{1565} = (12, 0, 5, 1)
                                                                 138: P_{2663} = (6, 5, 9, 1)
85: P_{1592} = (7, 2, 5, 1)
                                                                 139: P_{2666} = (9, 5, 9, 1)
86: P_{1628} = (11, 4, 5, 1)
                                                                 140: P_{2671} = (14, 5, 9, 1)
87: P_{1636} = (3, 5, 5, 1)
                                                                 141: P_{2688} = (15, 6, 9, 1)
88: P_{1641} = (8, 5, 5, 1)
                                                                 142: P_{2695} = (6,7,9,1)
89: P_{1643} = (10, 5, 5, 1)
                                                                 143: P_{2723} = (2, 9, 9, 1)
90: P_{1670} = (5, 7, 5, 1)
                                                                 144: P_{2779} = (10, 12, 9, 1)
                                                                 145: P_{2797} = (12, 13, 9, 1)
91: P_{1682} = (1, 8, 5, 1)
92: P_{1691} = (10, 8, 5, 1)
                                                                 146: P_{2809} = (8, 14, 9, 1)
                                                                 147: P_{2837} = (4, 0, 10, 1)
93: P_{1701} = (4, 9, 5, 1)
94: P_{1755} = (10, 12, 5, 1)
                                                                 148: P_{2844} = (11, 0, 10, 1)
                                                                 149: P_{2847} = (14, 0, 10, 1)
95: P_{1829} = (4, 1, 6, 1)
96: P_{1836} = (11, 1, 6, 1)
                                                                 150: P_{2850} = (1, 1, 10, 1)
                                                                 151: P_{2887} = (6, 3, 10, 1)
97: P_{1839} = (14, 1, 6, 1)
98: P_{1876} = (3, 4, 6, 1)
                                                                 152: P_{2937} = (8, 6, 10, 1)
99: P_{1890} = (1, 5, 6, 1)
                                                                 153: P_{2948} = (3, 7, 10, 1)
100: P_{1900} = (11, 5, 6, 1)
                                                                 154: P_{2968} = (7, 8, 10, 1)
101: P_{1936} = (15, 7, 6, 1)
                                                                 155: P_{2998} = (5, 10, 10, 1)
102: P_{1939} = (2, 8, 6, 1)
                                                                 156: P_{3004} = (11, 10, 10, 1)
103: P_{1950} = (13, 8, 6, 1)
                                                                 157: P_{3008} = (15, 10, 10, 1)
104: P_{1951} = (14, 8, 6, 1)
                                                                 158: P_{3010} = (1, 11, 10, 1)
105: P_{1959} = (6, 9, 6, 1)
                                                                 159: P_{3020} = (11, 11, 10, 1)
106: P_{1977} = (8, 10, 6, 1)
                                                                 160: P_{3091} = (2, 0, 11, 1)
107: P_{2000} = (15, 11, 6, 1)
                                                                 161: P_{3098} = (9, 0, 11, 1)
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162: P_{3099} = (10, 0, 11, 1)
                                                                194: P_{3739} = (10, 8, 13, 1)
                                                                195: P_{3750} = (5, 9, 13, 1)
163: P_{3106} = (1, 1, 11, 1)
                                                                196: P_{3764} = (3, 10, 13, 1)
164: P_{3182} = (13, 5, 11, 1)
                                                                197: P_{3792} = (15, 11, 13, 1)
165: P_{3250} = (1, 10, 11, 1)
166: P_{3259} = (10, 10, 11, 1)
                                                                198: P_{3796} = (3, 12, 13, 1)
167: P_{3268} = (3, 11, 11, 1)
                                                                199: P_{3838} = (13, 14, 13, 1)
168: P_{3273} = (8, 11, 11, 1)
                                                                200: P_{3843} = (2, 15, 13, 1)
169: P_{3275} = (10, 11, 11, 1)
                                                                201: P_{3845} = (4, 15, 13, 1)
170: P_{3286} = (5, 12, 11, 1)
                                                                202: P_{3848} = (7, 15, 13, 1)
171: P_{3312} = (15, 13, 11, 1)
                                                                203: P_{3862} = (5, 0, 14, 1)
172: P_{3341} = (12, 15, 11, 1)
                                                                204: P_{3904} = (15, 2, 14, 1)
                                                                205: P_{3950} = (13, 5, 14, 1)
173: P_{3363} = (2, 1, 12, 1)
174: P_{3370} = (9, 1, 12, 1)
                                                                206: P_{3964} = (11, 6, 14, 1)
175: P_{3371} = (10, 1, 12, 1)
                                                                207: P_{3975} = (6, 7, 14, 1)
                                                                208: P_{3987} = (2, 8, 14, 1)
176: P_{3392} = (15, 2, 12, 1)
177: P_{3394} = (1, 3, 12, 1)
                                                                209: P_{3998} = (13, 8, 14, 1)
178: P_{3403} = (10, 3, 12, 1)
                                                                210: P_{3999} = (14, 8, 14, 1)
                                                                211: P_{4062} = (13, 12, 14, 1)
179: P_{3421} = (12, 4, 12, 1)
180: P_{3431} = (6, 5, 12, 1)
                                                                212: P_{4068} = (3, 13, 14, 1)
181: P_{3434} = (9, 5, 12, 1)
                                                                213: P_{4085} = (4, 14, 14, 1)
182: P_{3439} = (14, 5, 12, 1)
                                                                214: P_{4126} = (13, 0, 15, 1)
                                                                215: P_{4159} = (14, 2, 15, 1)
183: P_{3449} = (8, 6, 12, 1)
                                                                216: P_{4162} = (1, 3, 15, 1)
184: P_{3493} = (4, 9, 12, 1)
185: P_{3513} = (8, 10, 12, 1)
                                                                217: P_{4171} = (10, 3, 15, 1)
186: P_{3526} = (5, 11, 12, 1)
                                                                218: P_{4224} = (15, 6, 15, 1)
187: P_{3561} = (8, 13, 12, 1)
                                                                219: P_{4263} = (6, 9, 15, 1)
188 : P_{3619} = (2, 1, 13, 1)
                                                                220: P_{4331} = (10, 13, 15, 1)
189 : P_{3626} = (9, 1, 13, 1)
                                                                221: P_{4348} = (11, 14, 15, 1)
190: P_{3627} = (10, 1, 13, 1)
                                                                222: P_{4356} = (3, 15, 15, 1)
191: P_{3647} = (14, 2, 13, 1)
                                                                223: P_{4361} = (8, 15, 15, 1)
192: P_{3716} = (3, 7, 13, 1)
                                                                224: P_{4363} = (10, 15, 15, 1)
193: P_{3730} = (1, 8, 13, 1)
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# Line Intersection Graph

Neighbor sets in the line intersection graph:

The surface has 225 points:

The points on the surface are:

```
0: P_2 = (0,0,1,0)
                                            12: P_{152} = (5, 8, 1, 0)
                                                                                         24: P_{407} = (5, 8, 0, 1)
1: P_5 = (1, 1, 0, 0)
                                                                                         25: P_{413} = (11, 8, 0, 1)
                                            13: P_{222} = (11, 12, 1, 0)
                                                                                         26: P_{417} = (15, 8, 0, 1)
2: P_{14} = (10, 1, 0, 0)
                                            14: P_{238} = (11, 13, 1, 0)
3: P_{15} = (11, 1, 0, 0)
                                            15: P_{267} = (8, 15, 1, 0)
                                                                                         27: P_{420} = (2, 9, 0, 1)
4: P_{20} = (1,0,1,0)
                                            16: P_{315} = (9, 2, 0, 1)
                                                                                         28: P_{439} = (5, 10, 0, 1)
5: P_{36} = (1, 1, 1, 0)
                                            17: P_{327} = (5, 3, 0, 1)
                                                                                         29: P_{445} = (11, 10, 0, 1)
6: P_{45} = (10, 1, 1, 0)
                                            18: P_{333} = (11, 3, 0, 1)
                                                                                         30: P_{449} = (15, 10, 0, 1)
7: P_{46} = (11, 1, 1, 0)
                                            19: P_{337} = (15, 3, 0, 1)
                                                                                         31: P_{453} = (3, 11, 0, 1)
8: P_{82} = (15, 3, 1, 0)
                                            20: P_{352} = (14, 4, 0, 1)
                                                                                         32: P_{458} = (8, 11, 0, 1)
9: P_{102} = (3, 5, 1, 0)
                                            21: P_{357} = (3, 5, 0, 1)
                                                                                         33: P_{460} = (10, 11, 0, 1)
10: P_{125} = (10, 6, 1, 0)
                                            22: P_{362} = (8, 5, 0, 1)
                                                                                         34: P_{502} = (4, 14, 0, 1)
                                                                                         35: P_{517} = (3, 15, 0, 1)
11: P_{141} = (10, 7, 1, 0)
                                            23: P_{364} = (10, 5, 0, 1)
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90: P_{1670} = (5, 7, 5, 1)
                                                                                       144: P_{2779} = (10, 12, 9, 1)
36: P_{522} = (8, 15, 0, 1)
                                                                                       145: P_{2797} = (12, 13, 9, 1)
37: P_{524} = (10, 15, 0, 1)
                                            91: P_{1682} = (1, 8, 5, 1)
38: P_{531} = (1,0,1,1)
                                                                                        146: P_{2809} = (8, 14, 9, 1)
                                            92: P_{1691} = (10, 8, 5, 1)
39: P_{571} = (10, 2, 1, 1)
                                                                                       147: P_{2837} = (4, 0, 10, 1)
                                           93: P_{1701} = (4, 9, 5, 1)
                                           94: P_{1755} = (10, 12, 5, 1)
40: P_{604} = (11, 4, 1, 1)
                                                                                       148: P_{2844} = (11, 0, 10, 1)
41: P_{630} = (5, 6, 1, 1)
                                           95: P_{1829} = (4, 1, 6, 1)
                                                                                       149: P_{2847} = (14, 0, 10, 1)
42: P_{656} = (15, 7, 1, 1)
                                           96: P_{1836} = (11, 1, 6, 1)
                                                                                       150: P_{2850} = (1, 1, 10, 1)
                                                                                       151: P_{2887} = (6, 3, 10, 1)
43: P_{683} = (10, 9, 1, 1)
                                            97: P_{1839} = (14, 1, 6, 1)
44: P_{690} = (1, 10, 1, 1)
                                           98: P_{1876} = (3, 4, 6, 1)
                                                                                       152: P_{2937} = (8, 6, 10, 1)
45: P_{699} = (10, 10, 1, 1)
                                           99: P_{1890} = (1, 5, 6, 1)
                                                                                       153: P_{2948} = (3, 7, 10, 1)
46: P_{706} = (1, 11, 1, 1)
                                           100: P_{1900} = (11, 5, 6, 1)
                                                                                       154: P_{2968} = (7, 8, 10, 1)
47: P_{716} = (11, 11, 1, 1)
                                           101: P_{1936} = (15, 7, 6, 1)
                                                                                       155: P_{2998} = (5, 10, 10, 1)
48: P_{724} = (3, 12, 1, 1)
                                           102: P_{1939} = (2, 8, 6, 1)
                                                                                       156: P_{3004} = (11, 10, 10, 1)
49: P_{745} = (8, 13, 1, 1)
                                                                                       157: P_{3008} = (15, 10, 10, 1)
                                           103: P_{1950} = (13, 8, 6, 1)
50: P_{764} = (11, 14, 1, 1)
                                                                                       158: P_{3010} = (1, 11, 10, 1)
                                           104: P_{1951} = (14, 8, 6, 1)
51: P_{793} = (8,0,2,1)
                                           105: P_{1959} = (6, 9, 6, 1)
                                                                                       159: P_{3020} = (11, 11, 10, 1)
52: P_{826} = (9, 2, 2, 1)
                                           106: P_{1977} = (8, 10, 6, 1)
                                                                                       160: P_{3091} = (2, 0, 11, 1)
53: P_{852} = (3, 4, 2, 1)
                                           107: P_{2000} = (15, 11, 6, 1)
                                                                                       161: P_{3098} = (9, 0, 11, 1)
54: P_{888} = (7, 6, 2, 1)
                                                                                       162: P_{3099} = (10, 0, 11, 1)
                                           108: P_{2032} = (15, 13, 6, 1)
55: P_{902} = (5,7,2,1)
                                           109: P_{2042} = (9, 14, 6, 1)
                                                                                       163: P_{3106} = (1, 1, 11, 1)
56: P_{920} = (7, 8, 2, 1)
                                           110: P_{2085} = (4, 1, 7, 1)
                                                                                       164: P_{3182} = (13, 5, 11, 1)
57: P_{990} = (13, 12, 2, 1)
                                           111: P_{2092} = (11, 1, 7, 1)
                                                                                       165: P_{3250} = (1, 10, 11, 1)
58: P_{1003} = (10, 13, 2, 1)
                                           112: P_{2095} = (14, 1, 7, 1)
                                                                                       166: P_{3259} = (10, 10, 11, 1)
59: P_{1027} = (2, 15, 2, 1)
                                           113: P_{2104} = (7, 2, 7, 1)
                                                                                       167: P_{3268} = (3, 11, 11, 1)
60: P_{1029} = (4, 15, 2, 1)
                                           114: P_{2117} = (4, 3, 7, 1)
                                                                                        168: P_{3273} = (8, 11, 11, 1)
61: P_{1032} = (7, 15, 2, 1)
                                           115: P_{2122} = (9, 3, 7, 1)
                                                                                       169: P_{3275} = (10, 11, 11, 1)
                                           116: P_{2125} = (12, 3, 7, 1)
62: P_{1048} = (7,0,3,1)
                                                                                       170: P_{3286} = (5, 12, 11, 1)
63: P_{1083} = (10, 2, 3, 1)
                                           117: P_{2131} = (2,4,7,1)
                                                                                       171: P_{3312} = (15, 13, 11, 1)
                                                                                       172: P_{3341} = (12, 15, 11, 1)
64: P_{1094} = (5, 3, 3, 1)
                                           118: P_{2166} = (5, 6, 7, 1)
65: P_{1100} = (11, 3, 3, 1)
                                           119: P_{2228} = (3, 10, 7, 1)
                                                                                       173: P_{3363} = (2, 1, 12, 1)
66: P_{1104} = (15, 3, 3, 1)
                                           120: P_{2246} = (5, 11, 7, 1)
                                                                                       174: P_{3370} = (9, 1, 12, 1)
67: P_{1107} = (2,4,3,1)
                                           121: P_{2262} = (5, 12, 7, 1)
                                                                                       175: P_{3371} = (10, 1, 12, 1)
68: P_{1122} = (1, 5, 3, 1)
                                           122: P_{2297} = (8, 14, 7, 1)
                                                                                       176: P_{3392} = (15, 2, 12, 1)
69: P_{1132} = (11, 5, 3, 1)
                                           123: P_{2306} = (1, 15, 7, 1)
                                                                                       177: P_{3394} = (1, 3, 12, 1)
70: P_{1164} = (11, 7, 3, 1)
                                           124: P_{2316} = (11, 15, 7, 1)
                                                                                       178: P_{3403} = (10, 3, 12, 1)
                                           125: P_{2327} = (6, 0, 8, 1)
71: P_{1252} = (3, 13, 3, 1)
                                                                                       179: P_{3421} = (12, 4, 12, 1)
72: P_{1278} = (13, 14, 3, 1)
                                           126: P_{2397} = (12, 4, 8, 1)
                                                                                       180: P_{3431} = (6, 5, 12, 1)
                                           127: P_{2428} = (11, 6, 8, 1)
                                                                                       181: P_{3434} = (9, 5, 12, 1)
73: P_{1312} = (15, 0, 4, 1)
74: P_{1349} = (4, 3, 4, 1)
                                           128: P_{2454} = (5, 8, 8, 1)
                                                                                       182: P_{3439} = (14, 5, 12, 1)
75: P_{1354} = (9, 3, 4, 1)
                                           129: P_{2460} = (11, 8, 8, 1)
                                                                                       183: P_{3449} = (8, 6, 12, 1)
76: P_{1357} = (12, 3, 4, 1)
                                           130: P_{2464} = (15, 8, 8, 1)
                                                                                       184: P_{3493} = (4, 9, 12, 1)
                                           131: P_{2475} = (10, 9, 8, 1)
                                                                                       185: P_{3513} = (8, 10, 12, 1)
77: P_{1375} = (14, 4, 4, 1)
78: P_{1400} = (7, 6, 4, 1)
                                           132: P_{2521} = (8, 12, 8, 1)
                                                                                       186: P_{3526} = (5, 11, 12, 1)
79: P_{1420} = (11, 7, 4, 1)
                                           133: P_{2554} = (9, 14, 8, 1)
                                                                                       187: P_{3561} = (8, 13, 12, 1)
80: P_{1446} = (5, 9, 4, 1)
                                           134: P_{2562} = (1, 15, 8, 1)
                                                                                       188: P_{3619} = (2, 1, 13, 1)
                                                                                       189: P_{3626} = (9, 1, 13, 1)
                                           135: P_{2572} = (11, 15, 8, 1)
81: P_{1497} = (8, 12, 4, 1)
82: P_{1517} = (12, 13, 4, 1)
                                           136: P_{2580} = (3, 0, 9, 1)
                                                                                       190: P_{3627} = (10, 1, 13, 1)
83: P_{1549} = (12, 15, 4, 1)
                                           137: P_{2631} = (6, 3, 9, 1)
                                                                                       191: P_{3647} = (14, 2, 13, 1)
                                                                                       192: P_{3716} = (3, 7, 13, 1)
84: P_{1565} = (12, 0, 5, 1)
                                           138: P_{2663} = (6, 5, 9, 1)
85: P_{1592} = (7, 2, 5, 1)
                                           139: P_{2666} = (9, 5, 9, 1)
                                                                                       193: P_{3730} = (1, 8, 13, 1)
                                                                                       194: P_{3739} = (10, 8, 13, 1)
86: P_{1628} = (11, 4, 5, 1)
                                           140: P_{2671} = (14, 5, 9, 1)
87: P_{1636} = (3, 5, 5, 1)
                                           141: P_{2688} = (15, 6, 9, 1)
                                                                                       195: P_{3750} = (5, 9, 13, 1)
88: P_{1641} = (8, 5, 5, 1)
                                           142: P_{2695} = (6,7,9,1)
                                                                                       196: P_{3764} = (3, 10, 13, 1)
89: P_{1643} = (10, 5, 5, 1)
                                           143: P_{2723} = (2, 9, 9, 1)
                                                                                       197: P_{3792} = (15, 11, 13, 1)
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208: P_{3987} = (2, 8, 14, 1)
                                                                                     218: P_{4224} = (15, 6, 15, 1)
198: P_{3796} = (3, 12, 13, 1)
                                           209: P_{3998} = (13, 8, 14, 1)
                                                                                     219: P_{4263} = (6, 9, 15, 1)
199: P_{3838} = (13, 14, 13, 1)
200: P_{3843} = (2, 15, 13, 1)
                                           210: P_{3999} = (14, 8, 14, 1)
                                                                                     220: P_{4331} = (10, 13, 15, 1)
201: P_{3845} = (4, 15, 13, 1)
                                           211: P_{4062} = (13, 12, 14, 1)
                                                                                     221: P_{4348} = (11, 14, 15, 1)
202: P_{3848} = (7, 15, 13, 1)
                                           212: P_{4068} = (3, 13, 14, 1)
                                                                                     222: P_{4356} = (3, 15, 15, 1)
203: P_{3862} = (5, 0, 14, 1)
                                           213: P_{4085} = (4, 14, 14, 1)
                                                                                     223: P_{4361} = (8, 15, 15, 1)
204: P_{3904} = (15, 2, 14, 1)
                                           214: P_{4126} = (13, 0, 15, 1)
                                                                                     224: P_{4363} = (10, 15, 15, 1)
205: P_{3950} = (13, 5, 14, 1)
                                           215: P_{4159} = (14, 2, 15, 1)
206: P_{3964} = (11, 6, 14, 1)
                                           216: P_{4162} = (1, 3, 15, 1)
207: P_{3975} = (6, 7, 14, 1)
                                           217: P_{4171} = (10, 3, 15, 1)
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