Rank-65865 over GF(16)

January 15, 2021

The equation

The equation of the surface is :

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

(0, 1, 1, 0, 0, 0, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0)
The point rank of the equation over GF(16) is 303108645

General information

Number of lines	0
Number of points	257
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	257
Number of Hesse planes	0
Number of axes	0
Type of points on lines	
Type of lines on points	0^{257}

Singular Points

The surface has 1 singular points:

$0 : P_3 = \mathbf{P}(0, 0, 0, 1) = \mathbf{P}(0, 0, 0, 1)$

The 0 Lines

The lines and their Pluecker coordinates are:
Rank of lines: ( )
Rank of points on Klein quadric: ( )

1

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

$0: P_0 = (1, 0, 0, 0)$
$1: P_3 = (0, 0, 0, 1)$
$2: P_{36} = (1, 1, 1, 0)$
$3: P_{61} = (10, 2, 1, 0)$
$4: P_{81} = (14, 3, 1, 0)$
$5: P_{94} = (11, 4, 1, 0)$
$6: P_{101} = (2, 5, 1, 0)$
$7: P_{130} = (15, 6, 1, 0)$
$8: P_{136} = (5, 7, 1, 0)$
$9: P_{151} = (4, 8, 1, 0)$
$10: P_{173} = (10, 9, 1, 0)$
$11: P_{189} = (10, 10, 1, 0)$
$12: P_{206} = (11, 11, 1, 0)$
$13: P_{219} = (8, 12, 1, 0)$
$14: P_{230} = (3, 13, 1, 0)$
$15: P_{254} = (11, 14, 1, 0)$
$16: P_{268} = (9, 15, 1, 0)$
$17: P_{291} = (1, 1, 0, 1)$
$18: P_{311} = (5, 2, 0, 1)$
$19: P_{330} = (8, 3, 0, 1)$
$20: P_{346} = (8, 4, 0, 1)$
$21: P_{369} = (15, 5, 0, 1)$
$22: P_{373} = (3, 6, 0, 1)$
$23: P_{394} = (8, 7, 0, 1)$
$24: P_{405} = (3, 8, 0, 1)$
$25: P_{433} = (15, 9, 0, 1)$
$26: P_{435} = (1, 10, 0, 1)$

$27: P_{451} = (1, 11, 0, 1)$
$28: P_{481} = (15, 12, 0, 1)$
$29: P_{487} = (5, 13, 0, 1)$
$30: P_{501} = (3, 14, 0, 1)$
$31: P_{519} = (5, 15, 0, 1)$
$32: P_{531} = (1, 0, 1, 1)$
$33: P_{555} = (10, 1, 1, 1)$
$34: P_{556} = (11, 1, 1, 1)$
$35: P_{589} = (12, 3, 1, 1)$
$36: P_{592} = (15, 3, 1, 1)$
$37: P_{612} = (3, 5, 1, 1)$
$38: P_{615} = (6, 5, 1, 1)$
$39: P_{662} = (5, 8, 1, 1)$
$40: P_{670} = (13, 8, 1, 1)$
$41: P_{690} = (1, 10, 1, 1)$
$42: P_{700} = (11, 10, 1, 1)$
$43: P_{706} = (1, 11, 1, 1)$
$44: P_{715} = (10, 11, 1, 1)$
$45: P_{776} = (7, 15, 1, 1)$
$46: P_{777} = (8, 15, 1, 1)$
$47: P_{790} = (5, 0, 2, 1)$
$48: P_{827} = (10, 2, 2, 1)$
$49: P_{831} = (14, 2, 2, 1)$
$50: P_{841} = (8, 3, 2, 1)$
$51: P_{847} = (14, 3, 2, 1)$
$52: P_{868} = (3, 5, 2, 1)$
$53: P_{874} = (9, 5, 2, 1)$

$54 : P_{887} = (6, 6, 2, 1)$

$55 : P_{891} = (10, 6, 2, 1)$

$56 : P_{933} = (4, 9, 2, 1)$

$57 : P_{944} = (15, 9, 2, 1)$

$58 : P_{967} = (6, 11, 2, 1)$

$59 : P_{970} = (9, 11, 2, 1)$

$60 : P_{985} = (8, 12, 2, 1)$

$61 : P_{986} = (9, 12, 2, 1)$

$62 : P_{1001} = (8, 13, 2, 1)$

$63 : P_{1004} = (11, 13, 2, 1)$

$64 : P_{1026} = (1, 15, 2, 1)$

$65 : P_{1031} = (6, 15, 2, 1)$

$66 : P_{1049} = (8, 0, 3, 1)$

$67 : P_{1124} = (3, 5, 3, 1)$

$68 : P_{1133} = (12, 5, 3, 1)$

$69 : P_{1197} = (12, 9, 3, 1)$

$70 : P_{1199} = (14, 9, 3, 1)$

$71 : P_{1203} = (2, 10, 3, 1)$

$72 : P_{1206} = (5, 10, 3, 1)$

$73 : P_{1220} = (3, 11, 3, 1)$

$74 : P_{1224} = (7, 11, 3, 1)$

$75 : P_{1252} = (3, 13, 3, 1)$

$76 : P_{1262} = (13, 13, 3, 1)$

$77 : P_{1285} = (4, 15, 3, 1)$

$78 : P_{1293} = (12, 15, 3, 1)$

$79 : P_{1305} = (8, 0, 4, 1)$

$80 : P_{1346} = (1, 3, 4, 1)$

$81 : P_{1358} = (13, 3, 4, 1)$

$82 : P_{1363} = (2, 4, 4, 1)$

$83 : P_{1372} = (11, 4, 4, 1)$

$84 : P_{1379} = (2, 5, 4, 1)$

$85 : P_{1392} = (15, 5, 4, 1)$

$86 : P_{1407} = (14, 6, 4, 1)$

$87 : P_{1408} = (15, 6, 4, 1)$

$88 : P_{1419} = (10, 7, 4, 1)$

$89 : P_{1424} = (15, 7, 4, 1)$

$90 : P_{1430} = (5, 8, 4, 1)$

$91 : P_{1439} = (14, 8, 4, 1)$

$92 : P_{1470} = (13, 10, 4, 1)$

$93 : P_{1471} = (14, 10, 4, 1)$

$94 : P_{1516} = (11, 13, 4, 1)$

$95 : P_{1518} = (13, 13, 4, 1)$

$96 : P_{1524} = (3, 14, 4, 1)$

$97 : P_{1530} = (9, 14, 4, 1)$

$98 : P_{1568} = (15, 0, 5, 1)$

$99 : P_{1607} = (6, 3, 5, 1)$

$100 : P_{1610} = (9, 3, 5, 1)$

$101 : P_{1670} = (5, 7, 5, 1)$

$102 : P_{1672} = (7, 7, 5, 1)$

$103 : P_{1686} = (5, 8, 5, 1)$

$104 : P_{1687} = (6, 8, 5, 1)$

$105 : P_{1718} = (5, 10, 5, 1)$

$106 : P_{1725} = (12, 10, 5, 1)$

$107 : P_{1733} = (4, 11, 5, 1)$

$108 : P_{1737} = (8, 11, 5, 1)$

$109 : P_{1779} = (2, 14, 5, 1)$

$110 : P_{1783} = (6, 14, 5, 1)$

$111 : P_{1812} = (3, 0, 6, 1)$

$112 : P_{1836} = (11, 1, 6, 1)$

$113 : P_{1838} = (13, 1, 6, 1)$

$114 : P_{1956} = (3, 9, 6, 1)$

$115 : P_{1960} = (7, 9, 6, 1)$

$116 : P_{1974} = (5, 10, 6, 1)$

$117 : P_{1980} = (11, 10, 6, 1)$

$118 : P_{2013} = (12, 12, 6, 1)$

$119 : P_{2016} = (15, 12, 6, 1)$

$120 : P_{2028} = (11, 13, 6, 1)$

$121 : P_{2031} = (14, 13, 6, 1)$

$122 : P_{2052} = (3, 15, 6, 1)$

$123 : P_{2059} = (10, 15, 6, 1)$

$124 : P_{2073} = (8, 0, 7, 1)$

$125 : P_{2092} = (11, 1, 7, 1)$

$126 : P_{2093} = (12, 1, 7, 1)$

$127 : P_{2103} = (6, 2, 7, 1)$

$128 : P_{2105} = (8, 2, 7, 1)$

$129 : P_{2153} = (8, 5, 7, 1)$

$130 : P_{2155} = (10, 5, 7, 1)$

$131 : P_{2236} = (11, 10, 7, 1)$

$132 : P_{2240} = (15, 10, 7, 1)$

$133 : P_{2261} = (4, 12, 7, 1)$

$134 : P_{2268} = (11, 12, 7, 1)$

$135 : P_{2278} = (5, 13, 7, 1)$

$136 : P_{2286} = (13, 13, 7, 1)$

$137 : P_{2324} = (3, 0, 8, 1)$

$138 : P_{2357} = (4, 2, 8, 1)$

$139 : P_{2366} = (13, 2, 8, 1)$

$140 : P_{2414} = (13, 5, 8, 1)$

$141 : P_{2415} = (14, 5, 8, 1)$

$142 : P_{2490} = (9, 10, 8, 1)$

$143 : P_{2496} = (15, 10, 8, 1)$

$144 : P_{2503} = (6, 11, 8, 1)$

$145 : P_{2505} = (8, 11, 8, 1)$

$146 : P_{2521} = (8, 12, 8, 1)$

$147 : P_{2525} = (12, 12, 8, 1)$

$148 : P_{2569} = (8, 15, 8, 1)$

$149 : P_{2574} = (13, 15, 8, 1)$

$150 : P_{2592} = (15, 0, 9, 1)$

$151 : P_{2614} = (5, 2, 9, 1)$

$152 : P_{2623} = (14, 2, 9, 1)$

$153 : P_{2658} = (1, 5, 9, 1)$

$154 : P_{2664} = (7, 5, 9, 1)$

$155 : P_{2696} = (7, 7, 9, 1)$

$156 : P_{2699} = (10, 7, 9, 1)$

$157 : P_{2708} = (3, 8, 9, 1)$

$158 : P_{2709} = (4, 8, 9, 1)$

$159 : P_{2725} = (4, 9, 9, 1)$

$160 : P_{2731} = (10, 9, 9, 1)$

$161 : P_{2755} = (2, 11, 9, 1)$

$162: P_{2760} = (7, 11, 9, 1)$
$163: P_{2772} = (3, 12, 9, 1)$
$164: P_{2780} = (11, 12, 9, 1)$
$165: P_{2787} = (2, 13, 9, 1)$
$166: P_{2788} = (3, 13, 9, 1)$
$167: P_{2819} = (2, 15, 9, 1)$
$168: P_{2825} = (8, 15, 9, 1)$
$169: P_{2834} = (1, 0, 10, 1)$
$170: P_{2853} = (4, 1, 10, 1)$
$171: P_{2863} = (14, 1, 10, 1)$
$172: P_{2898} = (1, 4, 10, 1)$
$173: P_{2899} = (2, 4, 10, 1)$
$174: P_{2996} = (3, 10, 10, 1)$
$175: P_{3001} = (8, 10, 10, 1)$
$176: P_{3015} = (6, 11, 10, 1)$
$177: P_{3016} = (7, 11, 10, 1)$
$178: P_{3033} = (8, 12, 10, 1)$
$179: P_{3038} = (13, 12, 10, 1)$
$180: P_{3044} = (3, 13, 10, 1)$
$181: P_{3053} = (12, 13, 10, 1)$
$182: P_{3058} = (1, 14, 10, 1)$
$183: P_{3066} = (9, 14, 10, 1)$
$184: P_{3090} = (1, 0, 11, 1)$
$185: P_{3107} = (2, 1, 11, 1)$
$186: P_{3114} = (9, 1, 11, 1)$
$187: P_{3122} = (1, 2, 11, 1)$
$188: P_{3135} = (14, 2, 11, 1)$
$189: P_{3192} = (7, 6, 11, 1)$
$190: P_{3200} = (15, 6, 11, 1)$
$191: P_{3206} = (5, 7, 11, 1)$
$192: P_{3207} = (6, 7, 11, 1)$
$193: P_{3234} = (1, 9, 11, 1)$
$194: P_{3237} = (4, 9, 11, 1)$
$195: P_{3261} = (12, 10, 11, 1)$
$196: P_{3262} = (13, 10, 11, 1)$
$197: P_{3270} = (5, 11, 11, 1)$
$198: P_{3280} = (15, 11, 11, 1)$
$199: P_{3360} = (15, 0, 12, 1)$
$200: P_{3367} = (6, 1, 12, 1)$
$201: P_{3371} = (10, 1, 12, 1)$
$202: P_{3422} = (13, 4, 12, 1)$
$203: P_{3424} = (15, 4, 12, 1)$
$204: P_{3450} = (9, 6, 12, 1)$
$205: P_{3451} = (10, 6, 12, 1)$
$206: P_{3464} = (7, 7, 12, 1)$
$207: P_{3465} = (8, 7, 12, 1)$
$208: P_{3484} = (11, 8, 12, 1)$
$209: P_{3488} = (15, 8, 12, 1)$

$210: P_{3524} = (3, 11, 12, 1)$
$211: P_{3531} = (10, 11, 12, 1)$
$212: P_{3606} = (5, 0, 13, 1)$
$213: P_{3624} = (7, 1, 13, 1)$
$214: P_{3627} = (10, 1, 13, 1)$
$215: P_{3654} = (5, 3, 13, 1)$
$216: P_{3660} = (11, 3, 13, 1)$
$217: P_{3700} = (3, 6, 13, 1)$
$218: P_{3703} = (6, 6, 13, 1)$
$219: P_{3715} = (2, 7, 13, 1)$
$220: P_{3723} = (10, 7, 13, 1)$
$221: P_{3785} = (8, 11, 13, 1)$
$222: P_{3787} = (10, 11, 13, 1)$
$223: P_{3830} = (5, 14, 13, 1)$
$224: P_{3837} = (12, 14, 13, 1)$
$225: P_{3860} = (3, 0, 14, 1)$
$226: P_{3909} = (4, 3, 14, 1)$
$227: P_{3920} = (15, 3, 14, 1)$
$228: P_{3923} = (2, 4, 14, 1)$
$229: P_{3929} = (8, 4, 14, 1)$
$230: P_{3958} = (5, 6, 14, 1)$
$231: P_{3963} = (10, 6, 14, 1)$
$232: P_{3973} = (4, 7, 14, 1)$
$233: P_{3974} = (5, 7, 14, 1)$
$234: P_{3986} = (1, 8, 14, 1)$
$235: P_{3997} = (12, 8, 14, 1)$
$236: P_{4021} = (4, 10, 14, 1)$
$237: P_{4029} = (12, 10, 14, 1)$
$238: P_{4060} = (11, 12, 14, 1)$
$239: P_{4061} = (12, 12, 14, 1)$
$240: P_{4090} = (9, 14, 14, 1)$
$241: P_{4092} = (11, 14, 14, 1)$
$242: P_{4102} = (5, 15, 14, 1)$
$243: P_{4106} = (9, 15, 14, 1)$
$244: P_{4118} = (5, 0, 15, 1)$
$245: P_{4168} = (7, 3, 15, 1)$
$246: P_{4176} = (15, 3, 15, 1)$
$247: P_{4184} = (7, 4, 15, 1)$
$248: P_{4186} = (9, 4, 15, 1)$
$249: P_{4215} = (6, 6, 15, 1)$
$250: P_{4224} = (15, 6, 15, 1)$
$251: P_{4243} = (2, 8, 15, 1)$
$252: P_{4248} = (7, 8, 15, 1)$
$253: P_{4286} = (13, 10, 15, 1)$
$254: P_{4288} = (15, 10, 15, 1)$
$255: P_{4292} = (3, 11, 15, 1)$
$256: P_{4303} = (14, 11, 15, 1)$

Line Intersection Graph

Neighbor sets in the line intersection graph:
The surface has 257 points:

The points on the surface are:

$0: P_0 = (1, 0, 0, 0)$

$1: P_3 = (0, 0, 0, 1)$

$2: P_{36} = (1, 1, 1, 0)$

$3: P_{61} = (10, 2, 1, 0)$

$4: P_{81} = (14, 3, 1, 0)$

$5: P_{94} = (11, 4, 1, 0)$

$6: P_{101} = (2, 5, 1, 0)$

$7: P_{130} = (15, 6, 1, 0)$

$8: P_{136} = (5, 7, 1, 0)$

$9: P_{151} = (4, 8, 1, 0)$

$10: P_{173} = (10, 9, 1, 0)$

$11: P_{189} = (10, 10, 1, 0)$

$12: P_{206} = (11, 11, 1, 0)$

$13: P_{219} = (8, 12, 1, 0)$

$14: P_{230} = (3, 13, 1, 0)$

$15: P_{254} = (11, 14, 1, 0)$

$16: P_{268} = (9, 15, 1, 0)$

$17: P_{291} = (1, 1, 0, 1)$

$18: P_{311} = (5, 2, 0, 1)$

$19: P_{330} = (8, 3, 0, 1)$

$20: P_{346} = (8, 4, 0, 1)$

$21: P_{369} = (15, 5, 0, 1)$

$22: P_{373} = (3, 6, 0, 1)$

$23: P_{394} = (8, 7, 0, 1)$

$24: P_{405} = (3, 8, 0, 1)$

$25: P_{433} = (15, 9, 0, 1)$

$26: P_{435} = (1, 10, 0, 1)$

$27: P_{451} = (1, 11, 0, 1)$

$28: P_{481} = (15, 12, 0, 1)$

$29: P_{487} = (5, 13, 0, 1)$

$30: P_{501} = (3, 14, 0, 1)$

$31: P_{519} = (5, 15, 0, 1)$

$32: P_{531} = (1, 0, 1, 1)$

$33: P_{555} = (10, 1, 1, 1)$

$34: P_{556} = (11, 1, 1, 1)$

$35: P_{589} = (12, 3, 1, 1)$

$36: P_{592} = (15, 3, 1, 1)$

$37: P_{612} = (3, 5, 1, 1)$

$38: P_{615} = (6, 5, 1, 1)$

$39: P_{662} = (5, 8, 1, 1)$

$40: P_{670} = (13, 8, 1, 1)$

$41: P_{690} = (1, 10, 1, 1)$

$42: P_{700} = (11, 10, 1, 1)$

$43: P_{706} = (1, 11, 1, 1)$

$44: P_{715} = (10, 11, 1, 1)$

$45: P_{776} = (7, 15, 1, 1)$

$46: P_{777} = (8, 15, 1, 1)$

$47: P_{790} = (5, 0, 2, 1)$

$48: P_{827} = (10, 2, 2, 1)$

$49: P_{831} = (14, 2, 2, 1)$

$50: P_{841} = (8, 3, 2, 1)$

$51: P_{847} = (14, 3, 2, 1)$

$52: P_{868} = (3, 5, 2, 1)$

$53: P_{874} = (9, 5, 2, 1)$

$54: P_{887} = (6, 6, 2, 1)$

$55: P_{891} = (10, 6, 2, 1)$

$56: P_{933} = (4, 9, 2, 1)$

$57: P_{944} = (15, 9, 2, 1)$

$58: P_{967} = (6, 11, 2, 1)$

$59: P_{970} = (9, 11, 2, 1)$

$60: P_{985} = (8, 12, 2, 1)$

$61: P_{986} = (9, 12, 2, 1)$

$62: P_{1001} = (8, 13, 2, 1)$

$63: P_{1004} = (11, 13, 2, 1)$

$64: P_{1026} = (1, 15, 2, 1)$

$65: P_{1031} = (6, 15, 2, 1)$

$66: P_{1049} = (8, 0, 3, 1)$

$67: P_{1124} = (3, 5, 3, 1)$

$68: P_{1133} = (12, 5, 3, 1)$

$69: P_{1197} = (12, 9, 3, 1)$

$70: P_{1199} = (14, 9, 3, 1)$

$71: P_{1203} = (2, 10, 3, 1)$

$72: P_{1206} = (5, 10, 3, 1)$

$73: P_{1220} = (3, 11, 3, 1)$

$74: P_{1224} = (7, 11, 3, 1)$

$75: P_{1252} = (3, 13, 3, 1)$

$76: P_{1262} = (13, 13, 3, 1)$

$77: P_{1285} = (4, 15, 3, 1)$

$78: P_{1293} = (12, 15, 3, 1)$

$79: P_{1305} = (8, 0, 4, 1)$

$80: P_{1346} = (1, 3, 4, 1)$

$81: P_{1358} = (13, 3, 4, 1)$

$82: P_{1363} = (2, 4, 4, 1)$

$83: P_{1372} = (11, 4, 4, 1)$

$84: P_{1379} = (2, 5, 4, 1)$

$85: P_{1392} = (15, 5, 4, 1)$

$86: P_{1407} = (14, 6, 4, 1)$

$87: P_{1408} = (15, 6, 4, 1)$

$88: P_{1419} = (10, 7, 4, 1)$

$89: P_{1424} = (15, 7, 4, 1)$

$90: P_{1430} = (5, 8, 4, 1)$

$91: P_{1439} = (14, 8, 4, 1)$

$92: P_{1470} = (13, 10, 4, 1)$

$93: P_{1471} = (14, 10, 4, 1)$

$94: P_{1516} = (11, 13, 4, 1)$

$95: P_{1518} = (13, 13, 4, 1)$

$96: P_{1524} = (3, 14, 4, 1)$

$97: P_{1530} = (9, 14, 4, 1)$

$98: P_{1568} = (15, 0, 5, 1)$

$99: P_{1607} = (6, 3, 5, 1)$

$100: P_{1610} = (9, 3, 5, 1)$

$101: P_{1670} = (5, 7, 5, 1)$

$102: P_{1672} = (7, 7, 5, 1)$

$103: P_{1686} = (5, 8, 5, 1)$

$104: P_{1687} = (6, 8, 5, 1)$

$105: P_{1718} = (5, 10, 5, 1)$

$106: P_{1725} = (12, 10, 5, 1)$

$107: P_{1733} = (4, 11, 5, 1)$

$108: P_{1737} = (8, 11, 5, 1)$

$109: P_{1779} = (2, 14, 5, 1)$

$110: P_{1783} = (6, 14, 5, 1)$

$111: P_{1812} = (3, 0, 6, 1)$

$112: P_{1836} = (11, 1, 6, 1)$

$113: P_{1838} = (13, 1, 6, 1)$

$114: P_{1956} = (3, 9, 6, 1)$

$115: P_{1960} = (7, 9, 6, 1)$

$116: P_{1974} = (5, 10, 6, 1)$

$117: P_{1980} = (11, 10, 6, 1)$

$118: P_{2013} = (12, 12, 6, 1)$

$119: P_{2016} = (15, 12, 6, 1)$

$120: P_{2028} = (11, 13, 6, 1)$

$121: P_{2031} = (14, 13, 6, 1)$

$122: P_{2052} = (3, 15, 6, 1)$

$123: P_{2059} = (10, 15, 6, 1)$

$124: P_{2073} = (8, 0, 7, 1)$

$125: P_{2092} = (11, 1, 7, 1)$

$126: P_{2093} = (12, 1, 7, 1)$

$127: P_{2103} = (6, 2, 7, 1)$

$128: P_{2105} = (8, 2, 7, 1)$

$129: P_{2153} = (8, 5, 7, 1)$

$130: P_{2155} = (10, 5, 7, 1)$

$131: P_{2236} = (11, 10, 7, 1)$

$132: P_{2240} = (15, 10, 7, 1)$

$133: P_{2261} = (4, 12, 7, 1)$

$134: P_{2268} = (11, 12, 7, 1)$

$135: P_{2278} = (5, 13, 7, 1)$

$136: P_{2286} = (13, 13, 7, 1)$

$137: P_{2324} = (3, 0, 8, 1)$

$138: P_{2357} = (4, 2, 8, 1)$

$139: P_{2366} = (13, 2, 8, 1)$

$140: P_{2414} = (13, 5, 8, 1)$

$141: P_{2415} = (14, 5, 8, 1)$

$142: P_{2490} = (9, 10, 8, 1)$

$143: P_{2496} = (15, 10, 8, 1)$

$144: P_{2503} = (6, 11, 8, 1)$

$145: P_{2505} = (8, 11, 8, 1)$

$146: P_{2521} = (8, 12, 8, 1)$

$147: P_{2525} = (12, 12, 8, 1)$

$148: P_{2569} = (8, 15, 8, 1)$

$149: P_{2574} = (13, 15, 8, 1)$

$150: P_{2592} = (15, 0, 9, 1)$

$151: P_{2614} = (5, 2, 9, 1)$

$152: P_{2623} = (14, 2, 9, 1)$

$153 : P_{2658} = (1, 5, 9, 1)$

$154 : P_{2664} = (7, 5, 9, 1)$

$155 : P_{2696} = (7, 7, 9, 1)$

$156 : P_{2699} = (10, 7, 9, 1)$

$157 : P_{2708} = (3, 8, 9, 1)$

$158 : P_{2709} = (4, 8, 9, 1)$

$159 : P_{2725} = (4, 9, 9, 1)$

$160 : P_{2731} = (10, 9, 9, 1)$

$161 : P_{2755} = (2, 11, 9, 1)$

$162 : P_{2760} = (7, 11, 9, 1)$

$163 : P_{2772} = (3, 12, 9, 1)$

$164 : P_{2780} = (11, 12, 9, 1)$

$165 : P_{2787} = (2, 13, 9, 1)$

$166 : P_{2788} = (3, 13, 9, 1)$

$167 : P_{2819} = (2, 15, 9, 1)$

$168 : P_{2825} = (8, 15, 9, 1)$

$169 : P_{2834} = (1, 0, 10, 1)$

$170 : P_{2853} = (4, 1, 10, 1)$

$171 : P_{2863} = (14, 1, 10, 1)$

$172 : P_{2898} = (1, 4, 10, 1)$

$173 : P_{2899} = (2, 4, 10, 1)$

$174 : P_{2996} = (3, 10, 10, 1)$

$175 : P_{3001} = (8, 10, 10, 1)$

$176 : P_{3015} = (6, 11, 10, 1)$

$177 : P_{3016} = (7, 11, 10, 1)$

$178 : P_{3033} = (8, 12, 10, 1)$

$179 : P_{3038} = (13, 12, 10, 1)$

$180 : P_{3044} = (3, 13, 10, 1)$

$181 : P_{3053} = (12, 13, 10, 1)$

$182 : P_{3058} = (1, 14, 10, 1)$

$183 : P_{3066} = (9, 14, 10, 1)$

$184 : P_{3090} = (1, 0, 11, 1)$

$185 : P_{3107} = (2, 1, 11, 1)$

$186 : P_{3114} = (9, 1, 11, 1)$

$187 : P_{3122} = (1, 2, 11, 1)$

$188 : P_{3135} = (14, 2, 11, 1)$

$189 : P_{3192} = (7, 6, 11, 1)$

$190 : P_{3200} = (15, 6, 11, 1)$

$191 : P_{3206} = (5, 7, 11, 1)$

$192 : P_{3207} = (6, 7, 11, 1)$

$193 : P_{3234} = (1, 9, 11, 1)$

$194 : P_{3237} = (4, 9, 11, 1)$

$195 : P_{3261} = (12, 10, 11, 1)$

$196 : P_{3262} = (13, 10, 11, 1)$

$197 : P_{3270} = (5, 11, 11, 1)$

$198 : P_{3280} = (15, 11, 11, 1)$

$199 : P_{3360} = (15, 0, 12, 1)$

$200 : P_{3367} = (6, 1, 12, 1)$

$201 : P_{3371} = (10, 1, 12, 1)$

$202 : P_{3422} = (13, 4, 12, 1)$

$203 : P_{3424} = (15, 4, 12, 1)$

$204 : P_{3450} = (9, 6, 12, 1)$

$205 : P_{3451} = (10, 6, 12, 1)$

$206 : P_{3464} = (7, 7, 12, 1)$

$207 : P_{3465} = (8, 7, 12, 1)$

$208 : P_{3484} = (11, 8, 12, 1)$

$209 : P_{3488} = (15, 8, 12, 1)$

$210 : P_{3524} = (3, 11, 12, 1)$

$211 : P_{3531} = (10, 11, 12, 1)$

$212 : P_{3606} = (5, 0, 13, 1)$

$213 : P_{3624} = (7, 1, 13, 1)$

$214 : P_{3627} = (10, 1, 13, 1)$

$215 : P_{3654} = (5, 3, 13, 1)$

$216 : P_{3660} = (11, 3, 13, 1)$

$217 : P_{3700} = (3, 6, 13, 1)$

$218 : P_{3703} = (6, 6, 13, 1)$

$219 : P_{3715} = (2, 7, 13, 1)$

$220 : P_{3723} = (10, 7, 13, 1)$

$221 : P_{3785} = (8, 11, 13, 1)$

$222 : P_{3787} = (10, 11, 13, 1)$

$223 : P_{3830} = (5, 14, 13, 1)$

$224 : P_{3837} = (12, 14, 13, 1)$

$225 : P_{3860} = (3, 0, 14, 1)$

$226 : P_{3909} = (4, 3, 14, 1)$

$227 : P_{3920} = (15, 3, 14, 1)$

$228 : P_{3923} = (2, 4, 14, 1)$

$229 : P_{3929} = (8, 4, 14, 1)$

$230 : P_{3958} = (5, 6, 14, 1)$

$231 : P_{3963} = (10, 6, 14, 1)$

$232 : P_{3973} = (4, 7, 14, 1)$

$233 : P_{3974} = (5, 7, 14, 1)$

$234 : P_{3986} = (1, 8, 14, 1)$

$235 : P_{3997} = (12, 8, 14, 1)$

$236 : P_{4021} = (4, 10, 14, 1)$

$237 : P_{4029} = (12, 10, 14, 1)$

$238 : P_{4060} = (11, 12, 14, 1)$

$239 : P_{4061} = (12, 12, 14, 1)$

$240 : P_{4090} = (9, 14, 14, 1)$

$241 : P_{4092} = (11, 14, 14, 1)$

$242 : P_{4102} = (5, 15, 14, 1)$

$243 : P_{4106} = (9, 15, 14, 1)$

$244 : P_{4118} = (5, 0, 15, 1)$

$245 : P_{4168} = (7, 3, 15, 1)$

$246 : P_{4176} = (15, 3, 15, 1)$

$247 : P_{4184} = (7, 4, 15, 1)$

$248 : P_{4186} = (9, 4, 15, 1)$

$249 : P_{4215} = (6, 6, 15, 1)$

$250 : P_{4224} = (15, 6, 15, 1)$

$251 : P_{4243} = (2, 8, 15, 1)$

$252 : P_{4248} = (7, 8, 15, 1)$

$253 : P_{4286} = (13, 10, 15, 1)$

$254 : P_{4288} = (15, 10, 15, 1)$

$255 : P_{4292} = (3, 11, 15, 1)$

$256 : P_{4303} = (14, 11, 15, 1)$