

**THE SUBGROUP LATTICE OF  $PIU_3(5) \cong U_3(5) : S_3$**

THOMAS CONNOR AND DIMITRI LEEMANS

Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
1	$U_3(5) : S_3$	756000	1	2, 3 (3), 5 (126), 15 (525), 32 (1750), 33 (1750), 58 (6000)	
2	$U_3(5) : 3$	378000	1	4, 7 (126), 22 (525), 46 (1750), 47 (1750), 90 (6000)	1
3	$U_3(5) : 2$	252000	3	4, 6 (50), 11 (126), 16 (175), 31 (525), 37 (750)	1
4	$U_3(5)$	126000	1	10 (150), 17 (126), 23 (525), 41 (525)	2, 3 (3)
5	$5^{1+2} : 8 : S_3$	6000	126	8, 9, 7, 11 (3), 42 (25)	1
6	$A_7 : 2$	5040	150	10, 24 (7), 43 (21), 52 (35), 114 (120)	3
7	$5^{1+2} : 24$	3000	126	12, 17, 60 (25)	2, 5
8	$5^{1+2} : 4 : S_3$	3000	126	12, 13, 14, 18 (3), 61 (25)	5
9	$5^{1+2} : 4 \cdot S_3$	3000	126	12, 19 (3), 62 (25)	5
10	$A_7$	2520	150	35 (7), 51 (30), 63 (21), 75 (35)	4, 6
11	$5^{1+2} : (8 : 2)$	2000	378	19, 17, 18, 74 (25)	3, 5
12	$5^{1+2} : 12$	1500	126	20, 28, 91 (25)	7, 8, 9
13	$5^{1+2} : 2 \cdot S_3$	1500	126	20, 29 (3), 92 (25)	8
14	$5^{1+2} : 2 : S_3$	1500	126	20, 21 (2), 30 (3), 93 (25)	8
15	$2 \cdot A_5 : 2 : S_3$	1440	525	25, 26, 22, 31 (3), 38 (5), 42 (6), 53 (10)	1
16	$S_6 : 2$	1440	525	23, 27, 24, 54 (10), 116 (36), 133 (45)	3
17	$5^{1+2} : 8$	1000	126	28, 117 (25)	4, 7, 11 (3)
18	$5^{1+2} : (2 \times 4)$	1000	378	28, 29, 30, 50 (10)	8, 11
19	$5^{1+2} : 8$	1000	378	28, 118 (25)	9, 11
20	$5^{1+2} : 6$	750	126	34, 39, 134 (25)	12, 13, 14
21	$5^{1+2} : S_3$	750	252	34, 40 (3), 135 (25)	14

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
22	$2 \cdot A_5 \times 3 : 2$	720	525	36, 41, 55 (5), 60 (6), 76 (10)	2, 15
23	$M_{10}$	720	525	35, 77 (10), 163 (36), 177 (45)	4, 16
24	$S_6$	720	525	35, 64 (12), 78 (10), 101 (30)	6 (2), 16
25	$2 \cdot A_5 : S_3$	720	525	36, 44 (3), 56 (5), 61 (6), 79 (10)	15
26	$2 \cdot A_5 : S_3$	720	525	36, 45 (3), 57 (5), 62 (6), 80 (10)	15
27	$A_6 : 2$	720	525	35, 81 (10), 164 (36), 178 (45)	16
28	$5^{1+2} : 4$	500	126	39, 69 (30)	12, 17, 18 (3), 19 (3)
29	$5^{1+2} : 4$	500	378	39, 70 (10)	13, 18
30	$5^{1+2} : 2^2$	500	378	40 (2), 39, 71 (10)	14, 18
31	$2 \cdot A_5 : 2 : 2$	480	1575	41, 45, 44, 72 (5), 74 (6), 102 (10)	3, 15
32	$M_9 : S_3$	432	1750	46, 54 (3), 67 (4), 103 (9)	1
33	$2 \times 6 : S_3 : S_3$	432	1750	48, 47, 49, 53 (3), 52 (3), 67 (4)	1
34	$5^{1+2} : 3$	375	126	59, 184 (25)	20, 21 (2)
35	$A_6$	360	525	94 (12), 120 (10), 138 (30)	10 (2), 23, 24, 27
36	$2 \cdot A_5 \times 3$	360	525	65, 82 (5), 91 (6), 121 (10)	22, 25, 26
37	$L_2(7) : 2$	336	2250	51, 114 (8), 178 (21), 186 (28)	3
38	$Q_8 : S_3 : S_3$	288	2625	57, 56, 55, 72 (3), 73 (3), 83 (4)	15
39	$5^{1+2} : 2$	250	126	59, 98 (30)	20, 28, 29 (3), 30 (3)
40	$5^{1+2} : 2$	250	756	59, 99, 100 (5)	21, 30
41	$2 \cdot A_5 : 2$	240	525	65, 104 (5), 117 (6), 139 (10)	4, 22, 31 (3)
42	$Q_{20} \cdot 2 : S_3$	240	3150	62, 61, 60, 74 (3), 105 (5)	5, 15
43	$A_5 : 2 \times 2$	240	3150	63, 64, 66, 101 (5), 116 (6), 140 (10)	6
44	$2 \cdot A_5 : 2$	240	1575	65, 106 (5), 119 (6), 141 (10)	25, 31
45	$2 \cdot A_5 : 2$	240	1575	65, 107 (5), 118 (6), 142 (10)	26, 31

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
46	$M_9 : 3$	216	1750	77, 95 (4), 143 (9)	2, 32
47	$6^2 : S_3$	216	1750	68, 75, 76 (3), 95 (4)	2, 33
48	$A_4 \times 3 : S_3$	216	1750	68, 84, 85 (3), 96 (4)	33
49	$A_4 \times 3 : S_3$	216	1750	68, 86 (6), 87 (3), 88 (3), 97 (4)	33
50	$5^2 : 2 \cdot 2 : 2$	200	3780	69, 70, 71, 119 (5), 116 (5)	18
51	$L_2(7)$	168	2250	138 (14), 160 (8)	10 (2), 37
52	$S_3 \times 2^2 : S_3$	144	5250	85, 75, 87, 101 (3), 102 (3), 122 (4)	6, 33
53	$2^2 : S_3 : S_3$	144	5250	88, 80, 84, 79, 83, 89, 76, 102 (3), 108 (3)	15, 33
54	$3 : S_3 \cdot 2 \cdot 2 : 2$	144	5250	77, 81, 78, 179 (9)	16, 32
55	$Q_8 \times 3 : S_3$	144	2625	82, 104, 109 (3), 123 (4)	22, 38
56	$Q_8 : 3 : S_3$	144	2625	82, 110, 106 (3), 124 (4)	25, 38
57	$Q_8 : 3 : S_3$	144	2625	82, 103 (6), 111 (3), 107 (3), 125 (4)	26, 38
58	$7 : 3 : S_3$	126	6000	90, 115, 114 (3), 169 (7)	1
59	$5^{1+2}$	125	126	137 (6)	34, 39, 40 (6)
60	$30 \cdot 2 \cdot 2$	120	3150	91, 117, 144 (5)	7, 22, 42
61	$Q_{20} : S_3$	120	3150	91, 93, 92, 119 (3), 145 (5)	8, 25, 42
62	$Q_{20} \cdot S_3$	120	3150	91, 118 (3), 146 (5)	9, 26, 42
63	$A_5 : 2$	120	3150	94, 138 (5), 163 (6), 187 (10)	10, 43
64	$A_5 : 2$	120	3150	94, 147 (5), 165 (6), 188 (10)	24 (2), 43
65	$2 \cdot A_5$	120	525	148 (5), 166 (6), 189 (10)	36, 41, 44 (3), 45 (3)
66	$A_5 \times 2$	120	3150	94, 149 (5), 164 (6), 186 (10)	43
67	$3^{1+2} : 2^2$	108	7000	95, 97, 96, 122 (3), 126 (3)	32, 33
68	$A_4 \times 3 : 3$	108	1750	127 (2), 128, 129, 136 (4)	47, 48, 49
69	$5^2 : 2 \cdot 2$	100	3780	98, 163 (5), 166 (5)	28, 50
70	$5^2 : 2 \cdot 2$	100	3780	98, 165, 167 (5)	29, 50
71	$5^2 : 2 : 2$	100	3780	100, 98, 99, 164 (5), 168 (5)	30, 50

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
72	$D_8 : 2 : S_3$	96	7875	104, 106, 107, 133 (3), 150 (4)	31, 38
73	$D_8 \cdot 2 : S_3$	96	7875	112, 111, 110, 108, 109, 105, 113, 133 (3)	38
74	$Q_{20} \cdot 2 : 2$	80	9450	118, 117, 119, 180 (5)	11, 31, 42
75	$A_4 : S_3$	72	1750	128, 138 (9), 139 (3), 170 (4)	10 (3), 47, 52 (3)
76	$2 \times 6 : S_3$	72	5250	123, 129, 121, 139, 151 (3)	22, 47, 53
77	$M_9$	72	1750	120 (3), 212 (9)	23 (3), 46, 54 (3)
78	$S_3 \times S_3 : 2$	72	5250	122 (2), 120, 213 (9)	24, 54
79	$Q_{12} : S_3$	72	5250	124, 130, 121, 141 (3), 145 (3)	25, 53
80	$D_{12} : S_3$	72	5250	131, 125, 121, 142 (3), 152 (3)	26, 53
81	$3 : S_3 \cdot 2 \cdot 2$	72	5250	120, 214 (9)	27, 54
82	$Q_8 : 3^2$	72	2625	148, 153, 143 (2), 171 (4)	36, 55, 56, 57
83	$D_{12} : S_3$	72	5250	123, 125, 124, 150 (3), 154 (3)	38 (2), 53
84	$2 \times 6 : S_3$	72	1750	129, 130 (3), 125 (3), 155 (9), 156 (3)	48, 53 (3)
85	$A_4 \times S_3$	72	5250	128, 156, 149 (3), 172 (4)	48, 52
86	$2 \times 6 : S_3$	72	10500	127, 157, 158 (3), 169 (4)	49
87	$2 \times 6 : S_3$	72	5250	128, 147, 158 (3), 172 (4)	49, 52
88	$2 \times 6 : S_3$	72	5250	124, 129, 131, 154, 158 (3)	49, 53
89	$D_{12} \times S_3$	72	5250	130, 132 (2), 126 (2), 123, 131, 155 (3), 140 (3)	53
90	$7 : 3 \times 3$	63	6000	161 (2), 162, 160, 209 (7)	2, 58
91	$30 \cdot 2$	60	3150	134, 166, 190 (5)	12, 36, 60, 61, 62
92	$10 \cdot S_3$	60	3150	134, 167 (3), 191	13, 61
93	$D_{60}$	60	3150	134, 135 (2), 168 (3), 192 (5)	14, 61
94	$A_5$	60	3150	193 (5), 204 (6), 222 (10)	35 (2), 63, 64, 66
95	$3^{1+2} : 2$	54	7000	136, 170, 173 (3)	46, 47, 67
96	$3^{1+2} : 2$	54	7000	136, 174, 172 (3)	48, 67

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
97	$3^{1+2} : 2$	54	7000	136, 175 (3), 169 (6), 172 (3)	49, 67
98	$5^2 : 2$	50	3780	137, 204, 205 (5)	39, 69, 70, 71
99	$5^2 : 2$	50	756	137, 206 (5), 207 (25)	40, 71 (5)
100	$5^2 : 2$	50	3780	137, 206, 208 (5)	40, 71
101	$2^3 : S_3$	48	15750	138, 149, 147, 181 (3), 188 (4)	24, 43, 52
102	$D_8 \times S_3$	48	15750	158, 139, 140, 156, 150, 141, 142, 181 (3)	31, 52, 53
103	$Q_8 : S_3$	48	15750	143, 179 (3), 194 (4)	32, 57
104	$Q_8 : S_3$	48	2625	148, 177 (3), 187 (4)	41, 55, 72 (3)
105	$8 : S_3$	48	7875	144, 146, 145, 180 (3)	42 (2), 73
106	$Q_8 \cdot 6$	48	7875	148, 182, 195 (4)	44, 56, 72
107	$Q_8 : S_3$	48	7875	148, 179 (3), 196 (4)	45, 57, 72
108	$D_8 \times S_3$	48	7875	151, 154 (2), 152, 155 (2), 145, 181 (3)	53 (2), 73
109	$Q_8 : 6$	48	7875	144, 153, 151, 177	55, 73
110	$Q_8 : S_3$	48	2625	159 (3), 145 (3), 153, 182 (3)	56, 73 (3)
111	$Q_8 : S_3$	48	7875	146, 153, 152, 179 (3)	57, 73
112	$D_{48}$	48	7875	159, 144, 152, 183 (3)	73
113	$D_8 : S_3$	48	7875	146, 159, 151, 178 (3)	73
114	$7 : 3 : 2$	42	18000	160, 185, 223 (7)	6, 37, 58
115	$D_{42}$	42	6000	162, 185 (3), 224 (7)	58
116	$D_{10} \cdot 2 \times 2$	40	18900	164, 163, 165, 215 (5)	16, 43, 50
117	$Q_{20} \cdot 2$	40	3150	166, 216 (5)	17, 41, 60, 74 (3)
118	$Q_{20} \cdot 2$	40	9450	166, 214 (5)	19, 45, 62, 74
119	$D_{20} \cdot 2$	40	9450	166, 167, 168, 215 (5)	44, 50 (2), 61, 74
120	$3 : S_3 \cdot 2$	36	5250	170, 234 (9)	35, 77, 78, 81
121	$6 \cdot S_3$	36	5250	171, 189, 190 (3)	36, 76, 79, 80
122	$S_3 \times S_3$	36	10500	172 (2), 170, 188 (6)	52 (2), 67 (2), 78
123	$S_3 \times 6$	36	5250	171, 173 (2), 187, 197 (3)	55 (2), 76, 83, 89
124	$6 \cdot S_3$	36	5250	171, 191, 195 (3)	56 (2), 79, 83, 88
125	$6 : S_3$	36	5250	171, 176 (2), 196 (3), 194 (6), 198 (3)	57 (2), 80, 83, 84
126	$S_3 \times S_3$	36	10500	175, 174, 173, 194 (3), 188 (3)	67 (2), 89
127	$A_4 \times 3$	36	3500	199 (3), 200, 209 (4)	68, 86 (3)
128	$A_4 \times 3$	36	1750	193 (3), 200, 210 (4)	68, 75, 85 (3), 87 (3)
129	$6^2$	36	1750	171 (3), 200, 197 (3)	68, 76 (3), 84, 88 (3)
130	$6 : S_3$	36	5250	174, 171, 176, 201 (6), 202 (3), 192 (3)	79, 84, 89

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
131	$S_3 \times 6$	36	5250	171, 175 (2), 198, 203 (3)	80, 88, 89
132	$S_3 \times S_3$	36	10500	173, 175, 176, 201 (3), 186 (3)	89
133	$Q_8 : 2^2$	32	23625	181, 177, 180, 179, 182, 178, 183	16, 72, 73
134	30	30	3150	184, 205, 225	20, 91, 92, 93
135	$D_{30}$	30	6300	184, 206 (3), 226 (5)	21, 93
136	$3^{1+2}$	27	7000	211, 209 (2), 210	68, 95, 96, 97
137	$5^2$	25	756	232 (5), 233	59, 98 (5), 99, 100 (5)
138	$2^2 : S_3$	24	15750	193, 217 (3), 222 (4)	35, 51 (2), 63, 75, 101
139	$2^2 : S_3$	24	5250	189, 200, 187, 217 (3)	41, 75, 76, 102 (3)
140	$S_3 \times 2^2$	24	15750	202, 188 (2), 186 (2), 203, 187, 218 (3)	43 (2), 89, 102
141	$S_3 \times 4$	24	15750	189, 195, 202, 215 (3)	44, 79, 102
142	$2^2 : S_3$	24	15750	189, 196, 203, 213 (3)	45, 80, 102
143	$Q_8 : 3$	24	5250	212, 227 (4)	46 (3), 82, 103 (3)
144	24	24	7875	190, 216	60 (2), 105, 109, 112
145	$S_3 \times 4$	24	7875	191, 190, 192, 215 (3)	61 (2), 79 (2), 105, 108, 110
146	$4 \cdot S_3$	24	7875	190, 214 (3)	62 (2), 105, 111, 113
147	$2^2 : S_3$	24	5250	193, 219 (3), 228 (4)	64 (3), 87, 101 (3)
148	$Q_8 : 3$	24	2625	212, 229 (4)	65, 82, 104, 106 (3), 107 (3)
149	$A_4 \times 2$	24	15750	193, 218, 223 (4)	66, 85, 101
150	$D_{24}$	24	15750	196, 195, 187, 219 (3)	72 (2), 83, 102
151	$D_8 \times 3$	24	7875	190, 197 (2), 217	76 (2), 108, 109, 113
152	$D_{24}$	24	7875	190, 198 (2), 213 (3)	80 (2), 108, 111, 112
153	$Q_8 \times 3$	24	2625	190 (3), 212	82, 109 (3), 110, 111 (3)
154	$2^2 : S_3$	24	5250	191, 197, 198, 219 (3)	83 (3), 88, 108 (3)
155	$S_3 \times 2^2$	24	15750	198, 194 (2), 201 (2), 197, 192, 218 (3)	84, 89, 108
156	$S_3 \times 2^2$	24	5250	196 (3), 202 (3), 200, 218 (3)	84, 85, 102 (3)
157	$2^2 : S_3$	24	10500	199, 219 (3), 224 (4)	86
158	$D_8 \times 3$	24	15750	203, 195, 200, 219	86 (2), 87, 88, 102
159	$D_{24}$	24	7875	192 (2), 190, 220 (3)	110, 112, 113
160	$7 : 3$	21	6000	221, 239 (7)	51 (3), 90, 114 (3)
161	$7 : 3$	21	12000	221, 240 (7)	90
162	21	21	6000	221, 240	90, 115
163	$D_{10} \cdot 2$	20	18900	204, 234 (5)	23, 63, 69, 116
164	$D_{20}$	20	18900	208, 204, 207, 235 (5)	27, 66, 71, 116

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
165	$D_{10} \cdot 2$	20	3780	204, 236 (5)	64 (5), 70, 116 (5)
166	$Q_{20}$	20	3150	205, 234 (5)	65, 69 (6), 91, 117, 118 (3), 119 (3)
167	20	20	9450	205, 236	70 (2), 92, 119
168	$D_{20}$	20	9450	206 (2), 205, 235 (5)	71 (2), 93, 119
169	$S_3 \times 3$	18	42000	209, 224, 223 (3)	58, 86, 97
170	$3 : S_3$	18	1750	210, 222 (12)	75 (4), 95 (4), 120 (3), 122 (6)
171	$3 \times 6$	18	5250	211, 227 (2), 229, 225	82 (2), 121, 123, 124, 125, 129, 130, 131
172	$S_3 \times 3$	18	21000	210, 228, 223 (3)	85, 87, 96, 97, 122
173	$S_3 \times 3$	18	10500	211, 222, 227 (3)	95 (2), 123, 126, 132
174	$3 : S_3$	18	1750	211, 226 (9), 228 (3)	96 (4), 126 (6), 130 (3)
175	$S_3 \times 3$	18	10500	211, 230, 223 (3)	97 (2), 126, 131, 132
176	$3 : S_3$	18	5250	211, 230 (6), 226 (3), 231 (3)	125 (2), 130, 132 (2)
177	$Q_8 : 2$	16	7875	217, 216, 212	23 (3), 104, 109, 133 (3)
178	$D_{16}$	16	23625	220, 214, 217	27, 37 (2), 113, 133
179	$D_8 \cdot 2$	16	23625	213, 212, 214	54 (2), 103 (2), 107, 111, 133
180	$8 : 2$	16	23625	215, 214, 216	74 (2), 105, 133
181	$D_8 \times 2$	16	23625	213, 215, 219 (2), 218 (2), 217	101 (2), 102 (2), 108, 133
182	$D_8 : 2$	16	7875	220 (3), 215 (3), 212	106, 110, 133 (3)
183	$D_{16}$	16	23625	213, 220, 216	112, 133
184	15	15	3150	233, 241	34, 134, 135 (2)
185	$D_{14}$	14	18000	221, 242 (7)	114, 115
186	$D_{12}$	12	31500	222, 223, 231, 235 (3)	37 (2), 66, 132, 140
187	$D_{12}$	12	5250	229, 222 (2), 237 (3)	63 (6), 104 (2), 123, 139, 140 (3), 150 (3)
188	$D_{12}$	12	31500	222, 223, 228, 238 (3)	64, 101 (2), 122 (2), 126, 140
189	$Q_{12}$	12	5250	229, 234 (3)	65, 121, 139, 141 (3), 142 (3)
190	12	12	7875	225, 234	91 (2), 121 (2), 144, 145, 146, 151, 152, 153, 159
191	$Q_{12}$	12	525	225, 236 (3)	92 (6), 124 (10), 145 (15), 154 (10)
192	$D_{12}$	12	7875	225, 226 (2), 235 (3)	93 (2), 130 (2), 145, 155 (2), 159 (2)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
193	$A_4$	12	5250	237, 239 (4)	94 (3), 128, 138 (3), 147, 149 (3)
194	$D_{12}$	12	31500	227, 226, 230, 238 (3)	103 (2), 125, 126, 155
195	12	12	15750	229, 236	106 (2), 124, 141, 150, 158
196	$D_{12}$	12	15750	231 (2), 229, 238 (3)	107 (2), 125, 142, 150, 156
197	$2 \times 6$	12	5250	227 (2), 225, 237	123 (3), 129, 151 (3), 154, 155 (3)
198	$D_{12}$	12	5250	225, 230 (2), 238 (3)	125 (3), 131, 152 (3), 154, 155 (3)
199	$A_4$	12	10500	237, 240 (4)	127, 157
200	$2 \times 6$	12	1750	229 (3), 237	127 (2), 128, 129, 139 (3), 156 (3), 158 (9)
201	$D_{12}$	12	31500	227, 226, 230, 235 (3)	130, 132, 155
202	$D_{12}$	12	15750	229, 228, 231, 235 (3)	130, 140, 141, 156
203	$2 \times 6$	12	15750	223 (2), 229, 238	131, 140, 142, 158
204	$D_{10}$	10	3780	232, 243 (5)	94 (5), 98, 163 (5), 164 (5), 165
205	10	10	3150	233, 243	98 (6), 134, 166, 167 (3), 168 (3)
206	$D_{10}$	10	3780	233, 242 (5)	99, 100, 135 (5), 168 (5)
207	$D_{10}$	10	18900	232, 242 (5)	99, 164
208	10	10	18900	232, 242	100, 164
209	$3^2$	9	14000	240 (3), 239	90 (3), 127, 136, 169 (3)
210	$3^2$	9	1750	239 (4)	128 (4), 136 (4), 170, 172 (12)
211	$3^2$	9	1750	241 (3), 239	136 (4), 171 (3), 173 (6), 174, 175 (6), 176 (3)
212	$Q_8$	8	2625	234 (3)	77 (6), 143 (2), 148, 153, 177 (3), 179 (9), 182 (3)
213	$D_8$	8	23625	238 (2), 234	78 (2), 142 (2), 152, 179, 181, 183
214	8	8	23625	234	81 (2), 118 (2), 146, 178, 179, 180
215	$2 \times 4$	8	23625	236, 235, 234	116 (4), 119 (2), 141 (2), 145, 180, 181, 182

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
216	8	8	7875	234	117 (2), 144, 177, 180 (3), 183 (3)
217	$D_8$	8	7875	237 (2), 234	138 (6), 139 (2), 151, 177, 178 (3), 181 (3)
218	$2^3$	8	15750	238 (3), 235 (3), 237	140 (3), 149, 155 (3), 156, 181 (3)
219	$D_8$	8	15750	238, 237, 236	147, 150 (3), 154, 157 (2), 158, 181 (3)
220	$D_8$	8	23625	235 (2), 234	159, 178, 182, 183
221	7	7	6000	244	160, 161 (2), 162, 185 (3)
222	$S_3$	6	10500	239, 243 (3)	94 (3), 138 (6), 170 (2), 173, 186 (3), 187, 188 (3)
223	6	6	31500	239, 242	114 (4), 149 (2), 169 (4), 172 (2), 175, 186, 188, 203
224	$S_3$	6	42000	240, 242 (3)	115, 157, 169
225	6	6	525	241, 243	134 (6), 171 (10), 190 (15), 191, 192 (15), 197 (10), 198 (10)
226	$S_3$	6	15750	241, 242 (3)	135 (2), 174, 176, 192, 194 (2), 201 (2)
227	6	6	10500	241, 243	143 (2), 171, 173 (3), 194 (3), 197, 201 (3)
228	$S_3$	6	5250	239, 242 (3)	147 (4), 172 (4), 174, 188 (6), 202 (3)
229	6	6	5250	239, 243	148 (2), 171, 187, 189, 195 (3), 196 (3), 200, 202 (3), 203 (3)
230	$S_3$	6	10500	241, 242 (3)	175, 176 (3), 194 (3), 198, 201 (3)
231	$S_3$	6	15750	239, 242 (3)	176, 186 (2), 196 (2), 202
232	5	5	3780	244	137, 204, 207 (5), 208 (5)
233	5	5	126	244	137 (6), 184 (25), 205 (25), 206 (30)
234	4	4	7875	243	120 (6), 163 (12), 166 (2), 189 (2), 190, 212, 213 (3), 214 (3), 215 (3), 216, 217, 220 (3)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
235	$2^2$	4	23625	242 (2), 243	164 (4), 168 (2), 186 (4), 192, 201 (4), 202 (2), 215, 218 (2), 220 (2)
236	4	4	1575	243	165 (12), 167 (6), 191, 195 (10), 215 (15), 219 (10)
237	$2^2$	4	1750	243 (3)	187 (9), 193 (3), 197 (3), 199 (6), 200, 217 (9), 218 (9), 219 (9)
238	$2^2$	4	15750	242 (2), 243	188 (6), 194 (6), 196 (3), 198, 203, 213 (3), 218 (3), 219
239	3	3	1750	244	160 (24), 193 (12), 209 (8), 210 (4), 211, 222 (6), 223 (18), 228 (3), 229 (3), 231 (9)
240	3	3	6000	244	161 (14), 162, 199 (7), 209 (7), 224 (7)
241	3	3	525	244	184 (6), 211 (10), 225, 226 (30), 227 (20), 230 (20)
242	2	2	3150	244	185 (40), 206 (6), 207 (30), 208 (6), 223 (10), 224 (40), 226 (15), 228 (5), 230 (10), 231 (15), 235 (15), 238 (10)
243	2	2	525	244	204 (36), 205 (6), 222 (60), 225, 227 (20), 229 (10), 234 (15), 235 (45), 236 (3), 237 (10), 238 (30)
244	1	1	1		221 (6000), 232 (3780), 233 (126), 239 (1750), 240 (6000), 241 (525), 242 (3150), 243 (525)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups

TABLE 1. Subgroup lattice of  $PFU_3(5) \cong U_3(5) : S_3$ 

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