

THE SUBGROUP LATTICE OF S_9

THOMAS CONNOR AND DIMITRI LEEMANS

Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
1	S_9	362880	1	2, 3 (9), 5 (36), 9 (84), 10 (126), 21 (280), 46 (840)	
2	A_9	181440	1	4 (9), 6 (36), 12 (84), 15 (240), 16 (126), 31 (280), 78 (840)	1
3	S_8	40320	9	4, 7 (8), 17 (28), 22 (35), 25 (56), 48 (105), 56 (120)	1
4	A_8	20160	9	11 (8), 20 (30), 26 (28), 34 (35), 49 (56)	2, 3
5	$S_7 \times 2$	10080	36	7, 8, 6, 17 (7), 38 (21), 60 (35), 153 (120)	1
6	S_7	5040	36	11, 26 (7), 65 (21), 100 (35), 246 (120)	2, 5
7	S_7	5040	36	11, 27 (7), 66 (21), 101 (35), 247 (120)	3 (2), 5
8	$A_7 \times 2$	5040	36	11, 28 (7), 57 (30), 67 (21), 102 (35)	5
9	$S_6 \times S_3$	4320	84	13, 14, 12, 17 (3), 29 (6), 25 (6), 47 (10), 61 (15), 60 (15)	1
10	$S_5 \times 2^2 : S_3$	2880	126	18, 16, 19, 24 (3), 25 (4), 35 (5), 39 (6), 60 (10)	1
11	A_7	2520	36	50 (7), 93 (30), 118 (21), 162 (35)	4 (2), 6, 7, 8
12	$A_6 : S_3$	2160	84	23, 26 (3), 51 (6), 49 (6), 79 (10), 100 (15), 103 (15)	2, 9
13	$S_6 \times 3$	2160	84	23, 27, 52 (6), 53 (6), 80 (10), 104 (15), 105 (15)	9

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
14	$A_6 \times S_3$	2160	84	23, 28 (3), 54 (6), 55 (6), 81 (10), 106 (15), 107 (15)	9
15	$L_2(8) : 3$	1512	240	37, 94 (9), 201 (28), 246 (36)	2
16	$A_5 \times 2 \times 2 : S_3$	1440	126	30, 40 (3), 49 (4), 62 (5), 68 (6), 100 (10)	2, 10
17	$S_6 \times 2$	1440	252	28, 26, 27, 69 (6), 66 (6), 108 (10), 140 (15), 141 (15)	3, 5, 9
18	$A_5 \times 2 \times 2 : S_3$	1440	126	30, 41 (3), 55 (4), 63 (5), 70 (6), 109 (10)	10
19	$S_5 \times A_4$	1440	126	30, 42, 52 (4), 63 (5), 71 (6), 110 (10)	10
20	$2^3 : L_2(7)$	1344	270	86 (7), 87 (7), 95 (8), 93 (8), 94 (8)	4
21	$S_3 \times S_3 \times S_3 : S_3$	1296	280	32, 33, 31, 47 (3), 58 (4), 210 (27)	1
22	$A_4 \times 2 \times 2 : S_3 \cdot 2 : 2$	1152	315	36, 35, 34, 117 (9), 163 (16)	3
23	$A_6 \times 3$	1080	84	50, 91 (6), 92 (6), 130 (10), 164 (15), 165 (15)	12, 13, 14
24	$S_5 \times D_8$	960	378	40, 42, 43, 41, 38, 44, 45, 88 (5), 99 (6), 142 (10)	10
25	$S_5 \times S_3$	720	504	55, 49, 52, 66 (3), 101 (5), 119 (6), 166 (10)	3, 9, 10
26	S_6	720	252	50, 120 (6), 118 (6), 167 (10), 211 (15), 212 (15)	4, 6, 12, 17
27	S_6	720	84	50, 121 (6), 122 (6), 168 (10), 213 (15), 214 (15)	7 (3), 13, 17 (3)
28	$A_6 \times 2$	720	252	50, 123 (6), 124 (6), 169 (10), 215 (15), 216 (15)	8, 14, 17
29	$A_5 : 2 \times S_3$	720	504	54, 53, 51, 69 (3), 111 (5), 119 (6), 170 (10)	9
30	$A_5 \times 2 \times 2 : 3$	720	126	72, 92 (4), 112 (5), 125 (6), 171 (10)	16, 18, 19
31	$3 : S_3 : S_3 : S_3$	648	280	59, 79 (3), 96 (4), 309 (27)	2, 21

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
32	$3 : S_3 : S_3 : 3 : 2$	648	280	59, 82, 97 (4), 310 (27)	21
33	$3 : S_3 : S_3 : S_3$	648	280	59, 83 (3), 98 (4), 311 (27)	21
34	$2^4 : S_3 : S_3$	576	315	62, 64 (2), 86 (6), 262 (16)	4, 22
35	$2^4 : S_3 : S_3$	576	315	62, 63 (2), 88 (6), 101 (8)	10 (2), 22
36	$A_4 \times 2 \times 2 : S_3 \cdot 2$	576	315	62, 187 (9), 263 (16)	22
37	$L_2(8)$	504	240	200 (9), 381 (28), 433 (36)	15
38	$S_5 \times 2^2$	480	378	66 (2), 67 (2), 73, 65, 74, 140 (5), 155 (6), 217 (10)	5 (2), 24
39	$D_{10} \cdot 2 \times 2 \times 2 : S_3$	480	756	70, 71, 68, 99 (3), 119 (4), 143 (5)	10
40	$A_5 \times 2 \times 2 : 2$	480	378	65, 75, 72, 144 (5), 156 (6), 218 (10)	16, 24
41	$D_8 \times A_5$	480	378	73, 76, 72, 145 (5), 157 (6), 219 (10)	18, 24
42	$S_5 \times 2^2$	480	126	74 (3), 77 (3), 72, 146 (5), 158 (6), 220 (10)	19, 24 (3)
43	$A_5 \times 2 \times 2 : 2$	480	378	77, 75, 73, 147 (5), 159 (6), 221 (10)	24
44	$A_5 \times 2 \cdot 2 : 2$	480	378	77, 65, 76, 148 (5), 160 (6), 222 (10)	24
45	$S_5 \times 4$	480	378	75, 74, 76, 143 (5), 161 (6), 223 (10)	24
46	$M_9 : S_3$	432	840	78, 113 (3), 131 (4), 224 (9)	1
47	$S_3 \times S_3 : 2 \times S_3$	432	840	80, 81, 82, 83, 84, 79, 85, 108 (3), 225 (9)	9, 21
48	$2^{1+4} : 2 : S_3$	384	945	87, 89, 90, 117 (3), 141 (4)	3
49	$A_5 : S_3$	360	504	92, 118 (3), 162 (5), 194 (6), 264 (10)	4, 12, 16, 25
50	A_6	360	84	195 (6), 196 (6), 265 (10), 312 (15), 313 (15)	11 (3), 23, 26 (3), 27, 28 (3)
51	$A_5 : S_3$	360	504	91, 120 (3), 172 (5), 194 (6), 266 (10)	12, 29
52	$S_5 \times 3$	360	504	92, 121, 173 (5), 197 (6), 267 (10)	13, 19, 25

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
53	$A_5 \times 3 : 2$	360	504	91, 122, 174 (5), 197 (6), 268 (10)	13, 29
54	$A_5 \times S_3$	360	504	91, 124 (3), 175 (5), 198 (6), 269 (10)	14, 29
55	$A_5 \times S_3$	360	504	92, 123 (3), 176 (5), 198 (6), 270 (10)	14, 18, 25
56	$L_2(7) : 2$	336	1080	95, 247 (8), 401 (21), 436 (28)	3
57	$L_2(7) \times 2$	336	1080	93, 226 (7), 215 (7), 248 (8)	8
58	$3^2 : S_3 : S_3$	324	1120	96, 97, 98, 131 (3), 132 (3)	21
59	$3 : S_3 : S_3 : 3$	324	280	133, 154 (4), 437 (27)	31, 32, 33
60	$2^3 \times S_3 : S_3$	288	1260	102, 105, 101, 110, 100, 109, 107, 140 (3), 142 (3), 166 (4)	5, 9, 10
61	$2^3 \times S_3 : S_3$	288	1260	103, 104, 114, 106, 115, 116, 111, 141 (3), 142 (3), 170 (4)	9
62	$A_4 \times 2 \times 2 : S_3$	288	315	112, 144 (6), 149 (6), 162 (8)	16 (2), 34, 35, 36
63	$A_4 \times 2 \times 2 : S_3$	288	630	112, 146, 145 (3), 173 (4), 176 (4)	18, 19, 35
64	$2^4 : 3 : S_3$	288	630	112, 150, 151 (3), 382 (16)	34
65	$S_5 \times 2$	240	378	118 (2), 126, 211 (5), 249 (6), 314 (10)	6 (2), 38, 40, 44
66	$S_5 \times 2$	240	756	118, 121, 123, 214 (5), 250 (6), 315 (10)	7, 17 (2), 25 (2), 38
67	$S_5 \times 2$	240	756	127, 118, 123, 216 (5), 251 (6), 316 (10)	8, 38
68	$D_{20} \times 2 \cdot S_3$	240	756	125, 156 (3), 194 (4), 227 (5)	16, 39
69	$A_5 : 2 \times 2$	240	1512	120, 122, 124, 228 (5), 250 (6), 317 (10)	17, 29
70	$D_{20} \times 2 : S_3$	240	756	128, 129, 125, 157 (3), 198 (4), 229 (5)	18, 39
71	$2 \times 10 : 3 : 2 \cdot 2$	240	756	125, 158, 197 (4), 230 (5)	19, 39
72	$A_5 \times 2 \times 2$	240	126	126 (3), 231 (5), 252 (6), 318 (10)	30, 40 (3), 41 (3), 42
73	$A_5 \times 2 \times 2$	240	378	123 (2), 126, 232 (5), 253 (6), 319 (10)	38, 41, 43

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
74	$S_5 \times 2$	240	378	121, 127, 126, 229 (5), 254 (6), 320 (10)	38, 42, 45
75	$A_5 \times 2 \cdot 2$	240	378	126, 227 (5), 255 (6), 321 (10)	40, 43, 45
76	$A_5 \times 2 \cdot 2$	240	378	126, 230 (5), 256 (6), 322 (10)	41, 44, 45
77	$S_5 \times 2$	240	378	127 (2), 126, 233 (5), 257 (6), 323 (10)	42, 43, 44
78	$M_9 : 3$	216	840	177, 202 (4), 324 (9)	2, 46
79	$3 : S_3 \cdot 2 : S_3$	216	840	134, 133, 130, 167 (3), 325 (9)	12, 31, 47
80	$3^2 : S_3 \cdot 2 : 2$	216	840	135, 136, 130, 168, 326 (9)	13, 47
81	$3 : S_3 \cdot 2 \times S_3$	216	840	137, 138, 130, 169 (3), 327 (9)	14, 47
82	$S_3 \times S_3 \times S_3$	216	280	138 (3), 136 (3), 133, 166 (9)	32, 47 (3)
83	$S_3 \times S_3 : S_3$	216	840	135, 133, 137, 178 (3), 328 (9)	33, 47
84	$S_3 \times S_3 \times S_3$	216	840	132 (2), 139 (2), 138, 135, 134, 170 (6), 179 (3)	47
85	$S_3 \times S_3 : S_3$	216	840	134, 136, 137, 163 (3), 329 (9)	47
86	$D_8 \times 2 : 2 : S_3$	192	1890	151, 149, 150, 188 (3), 234 (4)	20, 34
87	$2^{1+4} : S_3$	192	945	152, 188 (3), 212 (4), 234 (8)	20 (2), 48
88	$D_8 \times 2^2 : S_3$	192	1890	146, 147, 140, 144, 145, 148, 143, 189 (3), 235 (4)	24, 35
89	$2^{1+4} : 6$	192	945	152, 190, 236 (4)	48
90	$2^{1+4} : S_3$	192	945	152, 191 (3), 237 (4), 224 (8)	48
91	$A_5 \times 3$	180	504	195, 271 (5), 302 (6), 383 (10)	23, 51, 53, 54
92	$A_5 \times 3$	180	504	196, 272 (5), 302 (6), 384 (10)	23, 30, 49, 52, 55
93	$L_2(7)$	168	1080	313 (7), 330 (7), 367 (8)	11, 20 (2), 57
94	$2^3 : 7 : 3$	168	2160	200, 331 (7), 367 (8)	15, 20
95	$L_2(7)$	168	1080	332 (14), 367 (8)	20 (2), 56
96	$3^{1+2} : S_3$	162	1120	154, 203 (3), 201 (6), 202 (3)	31, 58

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
97	$3^{1+2} : S_3$	162	1120	154, 204, 205 (3)	32, 58
98	$3^3 : S_3$	162	1120	154, 206, 207 (3)	33, 58
99	$D_8 \times (D_{10} \cdot 2)$	160	2268	157, 159, 160, 155, 158, 156, 161, 285 (5)	24, 39
100	$S_3 \times 2^2 : S_3$	144	1260	164, 162, 171, 211 (3), 218 (3), 264 (4)	6, 12, 16, 60
101	$S_3 \times 2^2 : S_3$	144	1260	173, 162, 176, 214 (3), 235 (3), 273 (4)	7, 25 (2), 35 (2), 60
102	$A_4 \times 2 : S_3$	144	1260	180, 181, 162, 226 (6), 216 (3), 238 (3), 274 (4)	8, 60
103	$S_3 \times 2^2 : S_3$	144	1260	182, 165, 172, 218 (3), 212 (3), 266 (4)	12, 61
104	$2^2 \times 6 : S_3$	144	1260	183, 174, 165, 213, 239 (3), 268 (4)	13, 61
105	$2^2 \times 6 : S_3$	144	1260	173, 180, 164, 214, 239 (3), 267 (4)	13, 60
106	$S_3 \times 2^2 : S_3$	144	1260	175, 184, 165, 215 (3), 240 (3), 269 (4)	14, 61
107	$S_3 \times 2^2 : S_3$	144	1260	176, 181, 164, 216 (3), 240 (3), 270 (4)	14, 60
108	$D_{12} \times S_3 : 2$	144	2520	179, 169, 167, 166, 168, 178, 163, 402 (9)	17, 47
109	$2^2 : S_3 \times S_3$	144	1260	173, 171, 181, 219 (3), 229 (3), 270 (4)	18, 60
110	$A_4 \times 2 \times S_3$	144	1260	171, 176, 180, 220, 232 (3), 267 (4)	19, 60
111	$S_3 \times 2^2 : S_3$	144	1260	175, 174, 172, 241 (3), 228 (3), 275 (4)	29 (2), 61
112	$2^4 : 3 : 3$	144	315	231 (2), 242 (2), 272 (8)	30 (2), 62, 63 (2), 64 (2)
113	$M_9 : 2$	144	2520	185, 177, 186, 403 (9)	46
114	$A_4 \times 2 \times S_3$	144	1260	182, 175, 183, 217, 236 (3), 276 (4)	61
115	$S_3 \times 2^2 : S_3$	144	1260	182, 184, 174, 237 (3), 222 (3), 277 (4)	61
116	$2^2 \times 6 : S_3$	144	1260	184, 172, 183, 210 (6), 243 (3), 244 (3), 278 (4)	61
117	$2^{1+4} : 2^2$	128	2835	189, 192, 190, 188, 193, 191, 187	22, 48
118	S_5	120	756	196, 312 (5), 368 (6), 438 (10)	11, 26 (2), 49 (2), 65, 66, 67

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
119	$D_{10} \cdot 2 \times S_3$	120	3024	194, 198, 197, 250 (3), 333 (5)	25, 29, 39
120	$A_5 : 2$	120	1512	195, 334 (5), 368 (6), 439 (10)	26, 51, 69
121	S_5	120	126	196, 335 (5), 369 (6), 440 (10)	27 (4), 52 (4), 66 (6), 74 (3)
122	$A_5 : 2$	120	504	195, 336 (5), 369 (6), 441 (10)	27, 53, 69 (3)
123	$A_5 \times 2$	120	756	196, 337 (5), 370 (6), 442 (10)	28 (2), 55 (2), 66, 67, 73
124	$A_5 \times 2$	120	1512	195, 338 (5), 370 (6), 443 (10)	28, 54, 69
125	$2 \times 10 : 3 : 2$	120	756	199, 252, 302 (4), 339 (5)	30, 68, 70, 71
126	$A_5 \times 2$	120	378	196, 339 (5), 371 (6), 444 (10)	65, 72, 73, 74, 75, 76, 77
127	S_5	120	378	196, 340 (5), 372 (6), 445 (10)	67 (2), 74, 77 (2)
128	$2 \times 10 : S_3$	120	756	199, 258 (3), 303 (4), 335	70
129	$2 \times 10 : S_3$	120	756	199, 259 (3), 304 (4), 340 (5)	70
130	$3^2 : S_3 \cdot 2$	108	840	208, 265, 446 (9)	23, 79, 80, 81
131	$3^{1+2} : 2^2$	108	3360	202, 206, 205, 279 (3), 280 (3)	46, 58
132	$S_3 \times 3 : S_3$	108	1680	207, 203, 204, 279 (6), 278 (3), 281 (3), 277 (3)	58 (2), 84
133	$3 : S_3 : S_3$	108	280	208 (3), 264 (9)	59, 79 (3), 82, 83 (3)
134	$3 : S_3 : S_3$	108	840	203 (2), 208, 266 (6), 262 (3)	79, 84, 85
135	$S_3 \times 3 \times S_3$	108	840	207 (2), 208, 282, 268 (6)	80, 83, 84
136	$S_3 \times 3 \times S_3$	108	840	209 (2), 208, 273, 267 (6)	80, 82, 85
137	$3 : S_3 \cdot S_3$	108	840	208, 263 (3), 447 (9)	81, 83, 85
138	$S_3 \times 3 : S_3$	108	840	204, 208, 209, 274 (3), 269 (6), 270 (6)	81, 82, 84
139	$S_3 \times 3 \times S_3$	108	1680	203, 207, 209, 275, 276 (3), 283 (3)	84
140	$2^4 : S_3$	96	1890	214 (2), 232, 211, 216 (2), 229, 286 (3), 315 (4)	17 (2), 38, 60 (2), 88

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
141	$2^4 : S_3$	96	3780	213, 215, 236, 237, 228, 212, 244, 286 (3), 317 (4)	17, 48, 61
142	$D_8 \times 2 \times S_3$	96	3780	243, 219, 245, 239, 240, 225, 220, 217, 218, 221, 238, 235, 241, 223, 222, 286 (3)	24, 60, 61
143	$2^2 \times 4 : S_3$	96	1890	227, 229, 230, 285 (3), 333 (4)	39 (2), 45, 88
144	$2^4 : S_3$	96	1890	231, 211, 227, 287 (3), 341 (4)	40, 62, 88
145	$D_8 \times A_4$	96	1890	231, 232, 230, 288, 342 (4)	41, 63, 88
146	$2^4 : S_3$	96	630	229 (3), 233 (3), 231, 288 (3), 343 (4)	42, 63, 88 (3)
147	$2^4 : S_3$	96	1890	233, 232, 227, 289 (3), 344 (4)	43, 88
148	$2^2 \times 4 : S_3$	96	1890	230, 211, 233, 290 (3), 345 (4)	44, 88
149	$2^4 : S_3$	96	1890	242, 287 (3), 330 (8), 346 (4)	62, 86
150	$2^4 : S_3$	96	630	242, 291 (3), 332 (12)	64, 86 (3)
151	$2^4 : 3 : 2$	96	1890	242, 291, 331 (4)	64, 86
152	$2^{1+4} : 3$	96	945	292, 331 (8), 347 (4), 324 (8)	87, 89, 90
153	$7 : 3 : 2 \times 2$	84	4320	247, 248, 246, 305, 448 (7)	5
154	$3^{1+2} : 3$	81	1120	306, 307 (2), 308	59, 96, 97, 98
155	$D_{10} \cdot 2 \times 2 \times 2$	80	2268	251 (2), 253, 249, 250 (2), 254, 404 (5)	38, 99
156	$D_{10} \cdot 2 \times 2 : 2$	80	2268	255, 252, 249, 405 (5)	40, 68, 99
157	$D_8 \times (D_{10})$	80	2268	258, 260, 261, 253, 252, 259, 256, 406 (5)	41, 70, 99
158	$D_{10} \cdot 2 \times 2 \times 2$	80	756	254 (3), 257 (3), 252, 407 (5)	42, 71, 99 (3)
159	$D_{10} \cdot 2 \times 2 : 2$	80	2268	255, 257, 253, 408 (5)	43, 99
160	$20 : 2 \cdot 2$	80	2268	256, 257, 249, 409 (5)	44, 99
161	$D_{10} \cdot 2 \times 2 \cdot 2$	80	2268	256, 255, 254, 410 (5)	45, 99
162	$A_4 : S_3$	72	1260	272, 330 (6), 312 (3), 341 (3), 385 (4)	11, 49 (2), 62 (2), 100, 101, 102
163	$3 : S_3 \cdot 2 : 2$	72	2520	262, 263, 273, 480 (9)	22 (2), 85, 108
164	$2 \times 6 : S_3$	72	1260	272, 312, 348 (3), 384 (4)	23, 100, 105, 107

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
165	$2 \times 6 : S_3$	72	1260	271, 313, 348 (3), 383 (4)	23, 103, 104, 106
166	$D_{12} \times S_3$	72	2520	273, 270 (2), 267 (2), 274, 264, 315 (6)	25 (2), 60 (2), 82, 108
167	$S_3 \times S_3 : 2$	72	2520	265, 262, 264, 481 (9)	26, 79, 108
168	$S_3 \times S_3 : 2$	72	840	265, 282, 273, 482 (9)	27, 80, 108 (3)
169	$3 : S_3 \cdot 2 \times 2$	72	2520	274, 263, 265, 483 (9)	28, 81, 108
170	$D_{12} \times S_3$	72	5040	275, 278, 269, 268, 277, 266, 276, 349 (3), 317 (3)	29, 61, 84
171	$A_4 \times S_3$	72	1260	272, 318, 339 (3), 384 (4)	30, 100, 109, 110
172	$A_4 : S_3$	72	1260	271, 309 (6), 334 (3), 350 (3), 386 (4)	51 (2), 103, 111, 116
173	$2 \times 6 : S_3$	72	1260	272, 335, 342 (3), 387 (4)	52 (2), 63 (2), 101, 105, 109
174	$2 \times 6 : S_3$	72	1260	271, 336, 351 (3), 388 (4)	53 (2), 104, 111, 115
175	$A_4 \times S_3$	72	1260	271, 352, 338 (3), 389 (4)	54 (2), 106, 111, 114
176	$A_4 \times S_3$	72	1260	272, 343, 337 (3), 387 (4)	55 (2), 63 (2), 101, 107, 110
177	M_9	72	840	284 (3), 484 (9)	78, 113 (3)
178	$S_3 \times S_3 : 2$	72	2520	263, 282, 264, 485 (9)	83, 108
179	$D_{12} \times S_3$	72	2520	283 (2), 262, 274, 281 (2), 282, 317 (6)	84, 108
180	$A_4 \times 3 \times 2$	72	1260	272, 353 (2), 337, 354, 390 (4)	102, 105, 110
181	$A_4 : S_3$	72	1260	272, 355 (6), 340 (3), 356 (3), 391 (4)	102, 107, 109
182	$A_4 \times S_3$	72	1260	271, 314, 347 (3), 392 (4)	103, 114, 115
183	$A_4 \times 3 \times 2$	72	1260	271, 310 (2), 357, 358, 393 (4)	104, 114, 116
184	$2 \times 6 : S_3$	72	1260	271, 311 (6), 359 (3), 360 (3), 394 (4)	106, 115, 116
185	$3 : S_3 \cdot 2 \cdot 2$	72	2520	284, 486 (9)	113
186	$3 : S_3 \cdot 2 : 2$	72	2520	280 (2), 284, 487 (9)	113
187	$D_8 \times 2 \cdot 2 : 2$	64	2835	287, 293, 294	36, 117
188	$2^{1+4} : 2$	64	2835	287, 295 (2), 296, 291 (2), 292	86 (2), 87, 117
189	$D_8 \times D_8$	64	2835	286 (2), 290 (2), 289 (2), 285 (2), 297, 298, 299 (2), 288 (2), 287	88 (2), 117

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
190	$2^{1+4} : 2$	64	945	297 (3), 294 (3), 292	89, 117 (3)
191	$2^{1+4} : 2$	64	2835	298, 300 (2), 301 (2), 293, 292	90, 117
192	$2 \times 4 : 2 : 2 : 2$	64	2835	298, 294, 296	117
193	$8 : 2 : 2 : 2$	64	2835	297, 296, 293	117
194	$D_{10} \cdot S_3$	60	3024	302, 368 (3), 449 (5)	49, 51, 68, 119
195	A_5	60	504	450 (5), 470 (6), 514 (10)	50, 91, 120 (3), 122, 124 (3)
196	A_5	60	126	451 (5), 470 (6), 515 (10)	50 (4), 92 (4), 118 (6), 121, 123 (6), 126 (3), 127 (3)
197	$15 : 2 \cdot 2$	60	3024	302, 369, 452 (5)	52, 53, 71, 119
198	$D_{10} \times S_3$	60	3024	304, 303, 302, 370 (3), 453 (5)	54, 55, 70, 119
199	$2 \times 10 : 3$	60	756	373, 432 (4), 451	125, 128, 129
200	$2^3 : 7$	56	2160	488, 513 (8)	37, 94
201	$3^{1+2} : 2$	54	6720	307, 381, 395 (3)	15, 96
202	$3^{1+2} : 2$	54	3360	308, 396, 395 (3)	78, 96, 131
203	$3^2 : S_3$	54	1680	306, 386, 395 (6), 382 (3), 392 (3)	96 (2), 132, 134, 139
204	$3^2 : S_3$	54	280	306, 391 (9), 394 (18), 397 (12)	97 (4), 132 (6), 138 (3)
205	$3^{1+2} : 2$	54	3360	308, 397, 398 (3)	97, 131
206	$3^{1+2} : 2$	54	1120	308, 399 (3), 398 (9)	98, 131 (3)
207	$3^2 \times S_3$	54	1680	306, 399 (2), 400, 388, 393 (3)	98 (2), 132, 135, 139
208	$3^2 : S_3$	54	840	306, 385, 384 (6), 383 (6)	130, 133, 134, 135, 136, 137, 138
209	$3^2 \times S_3$	54	840	306, 387 (2), 389 (2), 390 (3)	136 (2), 138, 139 (2)
210	$2^3 : S_3$	48	7560	309, 310, 311, 402 (3), 454 (4)	21, 116
211	$2^3 : S_3$	48	1890	339, 312 (2), 411 (3), 438 (4)	26 (2), 65, 100 (2), 140, 144, 148
212	$2^3 : S_3$	48	3780	313, 347, 334, 411 (3), 439 (4)	26, 87, 103, 141
213	$2^3 : S_3$	48	1260	313, 358, 336, 412 (3), 441 (4)	27, 104, 141 (3)
214	$2^3 : S_3$	48	1260	335, 337, 312, 412 (3), 440 (4)	27, 66 (3), 101 (3), 105, 140 (3)
215	$2^3 : S_3$	48	3780	338, 313, 360, 413 (3), 443 (4)	28, 57 (2), 106, 141

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
216	$2^3 : S_3$	48	3780	340, 312, 337, 413 (3), 442 (4)	28, 67, 102, 107, 140
217	$2^3 \times S_3$	48	1260	319 (3), 320 (3), 357, 316 (3), 314, 315 (3), 352, 414 (3)	38 (3), 114, 142 (3)
218	$D_8 \times S_3$	48	3780	321, 318, 348, 314, 341, 350, 325, 411 (3)	40, 100, 103, 142
219	$D_8 \times S_3$	48	3780	342, 329, 361, 319, 318, 356, 322, 406 (3)	41, 109, 142
220	$2^3 \times S_3$	48	1260	320 (3), 362 (3), 323 (3), 349 (3), 354, 318, 343, 415 (3)	42, 110, 142 (3)
221	$D_8 \times S_3$	48	3780	344, 326, 323, 319, 363, 321, 364, 416 (3)	43, 142
222	$D_8 \times S_3$	48	3780	359, 351, 328, 314, 323, 345, 322, 417 (3)	44, 115, 142
223	$2 \times 4 \times S_3$	48	3780	365, 366, 322, 320, 333, 321, 327, 404 (3)	45, 142
224	$Q_8 : S_3$	48	7560	324, 403 (3), 455 (4)	46, 90
225	$D_8 \times S_3$	48	3780	326, 329, 327, 315, 328, 349, 325, 402 (3)	47 (2), 142
226	$2^3 : S_3$	48	7560	355, 330, 353, 413 (3), 443 (4)	57, 102
227	$2^3 \cdot S_3$	48	1890	339, 405 (3), 449 (4)	68 (2), 75, 143, 144, 147
228	$2^3 : S_3$	48	3780	336, 338, 334, 418 (3), 456 (4)	69 (2), 111, 141
229	$2^3 : S_3$	48	1890	339, 335, 340, 406 (3), 453 (4)	70 (2), 74, 109 (2), 140, 143, 146
230	$A_4 \times 2 \cdot 2$	48	1890	339, 407, 452 (4)	71 (2), 76, 143, 145, 148
231	$A_4 \times 2 \times 2$	48	630	339 (3), 419, 457 (4)	72, 112, 144 (3), 145 (3), 146
232	$A_4 \times 2 \times 2$	48	1890	337 (2), 339, 415, 458 (4)	73, 110 (2), 140, 145, 147
233	$2^3 : S_3$	48	1890	339, 340 (2), 420 (3), 459 (4)	77, 146, 147, 148
234	$2^3 : S_3$	48	7560	331, 346, 332, 421 (3), 439 (4)	86, 87
235	$D_8 \times S_3$	48	3780	343, 333, 344, 315, 341, 342, 345, 412 (3)	88 (2), 101, 142
236	$A_4 \times 2 \times 2$	48	3780	347, 358, 338, 414, 448 (4)	89, 114, 141

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
237	$2^3 : S_3$	48	3780	336, 347, 360, 417 (3), 455 (4)	90, 115, 141
238	$2^3 : S_3$	48	3780	316, 328, 356, 341, 365, 354, 363, 413 (3)	102, 142
239	$D_8 \times 6$	48	3780	357, 326, 366, 342, 348, 351, 354, 412	104, 105, 142
240	$D_8 \times S_3$	48	3780	352, 327, 356, 343, 359, 348, 364, 413 (3)	106, 107, 142
241	$D_8 \times S_3$	48	3780	352, 349, 363, 333, 351, 350, 361, 418 (3)	111, 142
242	$2^4 : 3$	48	630	419, 460 (8), 461 (12)	112, 149 (3), 150, 151 (3)
243	$2^3 : S_3$	48	3780	357, 329, 362, 344, 350, 359, 365, 402 (3)	116, 142
244	$2^3 : S_3$	48	3780	360, 358, 334, 402 (3), 436 (4)	116, 141
245	$2 \times 4 : S_3$	48	3780	362, 366, 325, 316, 364, 345, 361, 418 (3)	142
246	$7 : 3 : 2$	42	4320	367, 433, 516 (7)	6, 15 (2), 153
247	$7 : 3 : 2$	42	4320	367, 434, 517 (7)	7, 56 (2), 153
248	$7 : 3 \times 2$	42	4320	367, 435, 518 (7)	57 (2), 153
249	$D_{10} \cdot 2 \times 2$	40	2268	368 (2), 371, 489 (5)	65, 155, 156, 160
250	$D_{10} \cdot 2 \times 2$	40	4536	368, 369, 370, 490 (5)	66, 69 (2), 119 (2), 155
251	$D_{10} \cdot 2 \times 2$	40	4536	370, 372, 368, 483 (5)	67, 155
252	$D_{20} \times 2$	40	756	371 (3), 374 (3), 373, 491 (5)	72, 125, 156 (3), 157 (3), 158
253	$D_{20} \times 2$	40	2268	375, 376 (2), 370 (2), 377, 371, 492 (5)	73, 155, 157, 159
254	$D_{10} \cdot 2 \times 2$	40	2268	371, 372, 369, 493 (5)	74, 155, 158, 161
255	$D_{10} \cdot 2 \times 2$	40	2268	378 (2), 371, 494 (5)	75, 156, 159, 161
256	$D_{20} \cdot 2$	40	2268	379, 380, 371, 493 (5)	76, 157, 160, 161
257	$D_{10} \cdot 2 \times 2$	40	2268	372 (2), 371, 495 (5)	77, 158, 159, 160
258	$D_8 \times 5$	40	2268	380, 373, 375, 496	128, 157
259	$D_{20} : 2$	40	2268	379, 373, 377, 497 (5)	129, 157
260	$Q_{20} : 2$	40	2268	374, 379, 375, 480 (5)	157
261	D_{40}	40	2268	374, 380, 377, 498 (5)	157
262	$S_3 \times S_3$	36	2520	382 (2), 385, 439 (6)	34 (2), 134, 163, 167, 179
263	$3 : S_3 \cdot 2$	36	2520	385, 532 (9)	36 (2), 137, 163, 169, 178
264	$S_3 \times S_3$	36	2520	385, 384 (2), 438 (6)	49 (2), 100 (2), 133, 166, 167, 178

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
265	$3 : S_3 \cdot 2$	36	840	385, 533 (9)	50, 130, 167 (3), 168, 169 (3)
266	$S_3 \times S_3$	36	5040	386, 383, 392, 439 (3), 462 (3)	51, 103, 134, 170
267	$S_3 \times 6$	36	5040	387, 390, 384, 440, 458 (3)	52, 105, 110, 136, 166
268	$6 \times S_3$	36	5040	388, 383, 393, 441, 463 (3)	53, 104, 135, 170
269	$S_3 \times S_3$	36	5040	394, 389, 383, 443 (3), 453 (3)	54, 106, 138, 170
270	$S_3 \times S_3$	36	5040	384, 387, 391, 453 (3), 442 (3)	55, 107, 109, 138, 166
271	$A_4 \times 3$	36	1260	437 (2), 450, 464, 475 (4)	91 (2), 165, 172, 174, 175, 182, 183, 184
272	$A_4 \times 3$	36	1260	460 (2), 451, 457, 476 (4)	92 (2), 112 (2), 162, 164, 171, 173, 176, 180, 181
273	$S_3 \times S_3$	36	840	387 (2), 385, 440 (6)	101 (6), 136, 163 (3), 166 (3), 168
274	$6 : S_3$	36	2520	390, 391, 385, 442 (6), 443 (6)	102 (2), 138, 166, 169, 179
275	$S_3 \times S_3$	36	1680	386, 389, 388, 465 (3), 456 (3)	111 (3), 139, 170 (3)
276	$S_3 \times 6$	36	5040	393, 389, 392, 465, 448 (3)	114, 139, 170
277	$S_3 \times S_3$	36	5040	392, 394, 388, 466 (3), 455 (3)	115, 132, 170
278	$6 : S_3$	36	5040	393, 386, 394, 466 (3), 436 (3), 454 (6)	116, 132, 170
279	$S_3 \times S_3$	36	10080	399, 397, 395, 455 (3), 454 (3)	131, 132
280	$S_3 \times S_3$	36	5040	396, 398 (2), 454 (6)	131 (2), 186
281	$S_3 \times S_3$	36	5040	382, 391, 400, 436 (3), 455 (3)	132, 179
282	$S_3 \times S_3$	36	840	400 (2), 385, 441 (6)	135, 168, 178 (3), 179 (3)
283	$S_3 \times 6$	36	5040	400, 390, 382, 456, 448 (3)	139, 179
284	$3 : S_3 \cdot 2$	36	2520	396, 534 (9)	177, 185, 186
285	$D_8 \times 4$	32	5670	404, 410, 408, 409, 406, 407, 405	99 (2), 143, 189
286	$D_8 \times 2^2$	32	5670	414, 418 (2), 416, 404, 402 (2), 417, 412 (2), 413 (2), 406, 415, 411	140, 141 (2), 142 (2), 189

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
287	$2^3 \cdot 2 : 2$	32	2835	411 (2), 422, 405 (2), 423, 419	144 (2), 149 (2), 187, 188, 189
288	$D_8 \times 2^2$	32	1890	415, 424 (3), 425 (3), 420 (3), 406 (3), 407, 419	145, 146, 189 (3)
289	$D_8 \times 2 : 2$	32	5670	415, 426, 408, 405, 416, 427, 420	147, 189
290	$D_8 \times 2 : 2$	32	5670	411, 426, 428, 420, 417, 409, 407	148, 189
291	$D_8 \times 2 : 2$	32	1890	419, 421 (3), 429 (3)	150, 151, 188 (3)
292	2^{1+4}	32	945	423 (3), 430 (6), 421 (6)	152, 188 (3), 190, 191 (3)
293	$8 : 2 : 2$	32	2835	423, 431 (2)	187, 191, 193
294	$D_8 \times 2 \cdot 2$	32	2835	428 (2), 423	187, 190, 192
295	$D_8 \times 2 \cdot 2$	32	5670	422, 429, 421	188
296	$2 \times 4 : 2 : 2$	32	2835	423, 429 (2)	188, 192, 193
297	$D_8 \times 2 : 2$	32	2835	414, 428, 408 (2), 425 (2), 423	189, 190, 193
298	$D_8 \times 2 : 2$	32	2835	417 (2), 427, 410, 423, 424 (2)	189, 191, 192
299	$2 \times 4 : 2 : 2$	32	5670	416, 409, 404, 426, 425, 422, 424	189
300	$Q_8 : 2^2$	32	5670	427, 403 (2), 430, 401 (2), 431	191
301	$Q_8 : 4$	32	5670	410, 431, 430	191
302	$15 : 2$	30	3024	432, 470, 519 (5)	91, 92, 125, 194, 197, 198
303	$S_3 \times 5$	30	3024	432, 471 (3), 520	128, 198
304	D_{30}	30	3024	432, 472 (3), 521 (5)	129, 198
305	D_{28}	28	4320	433, 435, 434, 535 (7)	153
306	3^3	27	280	475 (6), 477 (4), 476 (3)	154 (4), 203 (6), 204, 207 (6), 208 (3), 209 (3)
307	3^{1+2}	27	2240	477, 478 (3)	154, 201 (3)
308	3^{1+2}	27	1120	477, 479 (3)	154, 202 (3), 205 (3), 206
309	$2^2 : S_3$	24	7560	437, 481 (3), 522 (4)	31, 172, 210
310	$A_4 \times 2$	24	2520	437, 499, 523 (4)	32 (3), 183, 210 (3)
311	$2^2 : S_3$	24	7560	437, 485 (3), 524 (4)	33, 184, 210
312	$2^2 : S_3$	24	1260	451, 500 (3), 515 (4)	50, 118 (3), 162 (3), 164, 211 (3), 214, 216 (3)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
313	$2^2 : S_3$	24	1260	450, 500 (3), 514 (4)	50, 93 (6), 165, 212 (3), 213, 215 (3)
314	$S_3 \times 2^2$	24	1260	438 (3), 444 (3), 464, 501 (3)	65 (3), 182, 217, 218 (3), 222 (3)
315	$S_3 \times 2^2$	24	3780	440 (2), 442 (2), 438, 458, 453, 499 (3)	66 (2), 140 (2), 166 (4), 217, 225, 235
316	$S_3 \times 2^2$	24	3780	467, 468, 445 (2), 438, 442 (2), 502 (3)	67 (2), 217, 238, 245
317	$S_3 \times 2^2$	24	15120	456, 448, 441, 443, 436, 439, 455, 503 (3)	69, 141, 170, 179
318	$S_3 \times 2^2$	24	1260	444 (3), 462 (3), 457, 491 (3)	72, 171, 218 (3), 219 (3), 220
319	$S_3 \times 2^2$	24	3780	469 (2), 458, 444, 442 (2), 468, 492 (3)	73, 217, 219, 221
320	$S_3 \times 2^2$	24	3780	467, 469, 465, 440, 444, 453, 445, 492 (3)	74, 217, 220, 223
321	$S_3 \times 4$	24	3780	446, 449, 444, 489 (3)	75, 218, 221, 223
322	$S_3 \times 4$	24	3780	447, 452, 444, 493 (3)	76, 219, 222, 223
323	$S_3 \times 2^2$	24	3780	444, 445 (2), 466 (2), 463, 459, 504 (3)	77, 220, 221, 222
324	$Q_8 : 3$	24	7560	484, 516 (4)	78, 152, 224
325	D_{24}	24	3780	446, 462, 438, 481 (3)	79 (2), 218, 225, 245
326	$D_8 \times 3$	24	3780	446, 463, 458, 482	80 (2), 221, 225, 239
327	$S_3 \times 4$	24	3780	446, 447, 453, 483 (3)	81 (2), 223, 225, 240
328	$2^2 : S_3$	24	3780	447, 463, 438, 485 (3)	83 (2), 222, 225, 238
329	$2^2 : S_3$	24	3780	447, 462, 458, 480 (3)	85 (2), 219, 225, 243
330	$2^2 : S_3$	24	7560	460, 500 (3), 514 (4)	93, 149 (2), 162, 226
331	$A_4 \times 2$	24	7560	461, 488, 516 (4)	94 (2), 151, 152, 234
332	$2^2 : S_3$	24	7560	461, 505 (3), 525 (4)	95 (2), 150, 234
333	$S_3 \times 4$	24	3780	452, 449, 453, 490 (3)	119 (4), 143 (2), 223, 235, 241
334	$2^2 : S_3$	24	3780	450, 481 (3), 525 (4)	120 (2), 172, 212, 228, 244
335	$2^2 : S_3$	24	126	451, 496 (3), 520 (4)	121 (5), 128 (6), 173 (10), 214 (10), 229 (15)
336	$2^2 : S_3$	24	1260	450, 506 (3), 526 (4)	122 (2), 174, 213, 228 (3), 237 (3)
337	$A_4 \times 2$	24	1260	451, 507, 527 (4)	123 (3), 176 (3), 180, 214, 216 (3), 232 (3)
338	$A_4 \times 2$	24	3780	450, 502, 518 (4)	124 (2), 175, 215, 228, 236

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
339	$A_4 \times 2$	24	1890	451, 491, 519 (4)	125 (2), 126, 171 (2), 211, 227, 229, 230, 231, 232, 233
340	$2^2 : S_3$	24	1890	451, 497 (3), 521 (4)	127, 129 (2), 181 (2), 216 (2), 229, 233 (2)
341	$2^2 : S_3$	24	3780	449, 457, 438, 500 (3)	144 (2), 162, 218, 235, 238
342	$D_8 \times 3$	24	3780	452, 457, 458, 496	145 (2), 173, 219, 235, 239
343	$S_3 \times 2^2$	24	1260	453 (3), 459 (3), 457, 507 (3)	146 (2), 176, 220, 235 (3), 240 (3)
344	$2^2 : S_3$	24	3780	449, 459, 458, 482 (3)	147 (2), 221, 235, 243
345	D_{24}	24	3780	459, 452, 438, 506 (3)	148 (2), 222, 235, 245
346	$2^2 : S_3$	24	7560	461, 508 (3), 514 (4)	149, 234
347	$A_4 \times 2$	24	3780	450, 501, 516 (4)	152, 182, 212, 236, 237
348	$D_8 \times 3$	24	3780	446, 464, 457, 500	164, 165, 218, 239, 240
349	$S_3 \times 2^2$	24	3780	465 (2), 466 (2), 453, 463, 462, 503 (3)	170 (4), 220, 225, 241
350	$2^2 : S_3$	24	3780	462, 464, 449, 481 (3)	172, 218, 241, 243
351	$D_8 \times 3$	24	3780	463, 464, 452, 506	174, 222, 239, 241
352	$S_3 \times 2^2$	24	1260	453 (3), 468 (3), 464, 502 (3)	175, 217, 240 (3), 241 (3)
353	$A_4 \times 2$	24	2520	460, 507, 518 (4)	180, 226 (3)
354	$2^2 \times 6$	24	1260	467 (3), 463 (3), 457, 507	180, 220, 238 (3), 239 (3)
355	$2^2 : S_3$	24	7560	460, 497 (3), 528 (4)	181, 226
356	$2^2 : S_3$	24	3780	447, 468, 457, 497 (3)	181, 219, 238, 240
357	$2^2 \times 6$	24	1260	458 (3), 467 (3), 464, 499	183, 217, 239 (3), 243 (3)
358	$A_4 \times 2$	24	1260	450, 499, 517 (4)	183, 213, 236 (3), 244 (3)
359	$2^2 : S_3$	24	3780	447, 464, 459, 485 (3)	184, 222, 240, 243
360	$2^2 : S_3$	24	3780	450, 485 (3), 528 (4)	184, 215, 237, 244
361	D_{24}	24	3780	462, 452, 468, 498 (3)	219, 241, 245
362	$S_3 \times 2^2$	24	3780	469 (2), 467, 462, 459, 466 (2), 503 (3)	220, 243, 245
363	$2^2 : S_3$	24	3780	463, 449, 468, 509 (3)	221, 238, 241
364	D_{24}	24	3780	446, 459, 468, 509 (3)	221, 240, 245
365	$2^2 \cdot S_3$	24	3780	447, 449, 467, 483 (3)	223, 238, 243
366	2×12	24	3780	452, 446, 467, 490	223, 239, 245
367	$7 : 3$	21	4320	513, 547 (7)	93 (2), 94 (4), 95 (2), 246, 247, 248

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
368	$D_{10} \cdot 2$	20	4536	470, 533 (5)	118, 120 (2), 194 (2), 249, 250, 251
369	$D_{10} \cdot 2$	20	756	470, 536 (5)	121, 122 (4), 197 (4), 250 (6), 254 (3)
370	D_{20}	20	4536	471, 472, 470, 537 (5)	123, 124 (2), 198 (2), 250, 251, 253
371	D_{20}	20	2268	473, 470, 474, 538 (5)	126, 249, 252, 253, 254, 255, 256, 257
372	$D_{10} \cdot 2$	20	2268	470, 532 (5)	127, 251 (2), 254, 257 (2)
373	2×10	20	756	474 (3), 539	199, 252, 258 (3), 259 (3)
374	D_{20}	20	2268	473 (2), 474, 540 (5)	252, 260, 261
375	2×10	20	2268	471 (2), 474, 541	253, 258, 260
376	D_{20}	20	4536	472, 473, 471, 535 (5)	253
377	D_{20}	20	2268	472 (2), 474, 542 (5)	253, 259, 261
378	$D_{10} \cdot 2$	20	4536	473, 534 (5)	255
379	Q_{20}	20	2268	474, 532 (5)	256, 259, 260
380	20	20	2268	474, 536	256, 258, 261
381	D_{18}	18	6720	478, 522 (3)	37, 201
382	$S_3 \times 3$	18	5040	476, 525, 516 (3)	64 (2), 203, 262, 281, 283
383	$S_3 \times 3$	18	5040	475, 514, 519 (3)	91, 165, 208, 266, 268, 269
384	$S_3 \times 3$	18	5040	476, 515, 519 (3)	92, 164, 171, 208, 264, 267, 270
385	$3 : S_3$	18	840	476, 515 (6), 514 (6)	162 (6), 208, 262 (3), 263 (3), 264 (3), 265, 273, 274 (3), 282
386	$3 : S_3$	18	1680	475, 529 (3), 525 (3), 522 (6)	172 (3), 203, 266 (3), 275, 278 (3)
387	$S_3 \times 3$	18	1680	476, 520, 527 (3)	173 (3), 176 (3), 209, 267 (3), 270 (3), 273
388	$S_3 \times 3$	18	1680	475, 526, 530 (3)	174 (3), 207, 268 (3), 275, 277 (3)
389	$S_3 \times 3$	18	1680	475, 520, 518 (3)	175 (3), 209, 269 (3), 275, 276 (3)
390	3×6	18	2520	476, 527 (2), 518 (2)	180 (2), 209, 267 (2), 274, 283 (2)
391	$3 : S_3$	18	2520	476, 521 (6), 528 (6)	181 (2), 204, 270 (2), 274, 281 (2)
392	$S_3 \times 3$	18	5040	475, 529, 516 (3)	182, 203, 266, 276, 277

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
393	3×6	18	5040	475, 517, 523 (2), 530	183, 207, 268, 276, 278
394	$3 : S_3$	18	5040	475, 528 (3), 521 (3), 524 (6)	184, 204, 269, 277, 278
395	$S_3 \times 3$	18	10080	477, 522, 516 (3)	201 (2), 202, 203, 279
396	$3 : S_3$	18	840	479, 522 (12)	202 (4), 280 (6), 284 (3)
397	$3 : S_3$	18	3360	477, 528 (9), 524 (3)	204, 205, 279 (3)
398	$S_3 \times 3$	18	10080	479, 524, 523 (3)	205, 206, 280
399	$S_3 \times 3$	18	3360	477, 526, 523 (3)	206, 207, 279 (3)
400	$S_3 \times 3$	18	1680	476, 526, 517 (3)	207, 281 (3), 282, 283 (3)
401	D_{16}	16	11340	487, 486, 505	56 (2), 300
402	$D_8 \times 2$	16	11340	499, 480, 483, 481, 503, 482, 485	108 (2), 210 (2), 225, 243, 244, 286
403	$Q_8 : 2$	16	11340	487, 486, 484	113 (2), 224 (2), 300
404	$2^2 \times 4$	16	5670	490 (2), 492, 489, 483 (2), 493	155 (2), 223 (2), 285, 286, 299
405	$2^3 \cdot 2$	16	5670	489, 494, 491	156 (2), 227, 285, 287, 289
406	$D_8 \times 2$	16	5670	492, 493, 480, 498, 496, 491, 497	157 (2), 219 (2), 229, 285, 286, 288
407	$2^2 \times 4$	16	1890	493 (3), 495 (3), 491	158 (2), 230, 285 (3), 288, 290 (3)
408	$2 \times 4 : 2$	16	5670	492, 494, 495	159 (2), 285, 289, 297
409	$2 \times 4 \cdot 2$	16	5670	489, 493, 495	160 (2), 285, 290, 299
410	4^2	16	2835	493 (2), 494	161 (4), 285 (2), 298, 301 (2)
411	$D_8 \times 2$	16	5670	500 (2), 489, 501, 491, 481 (2)	211, 212 (2), 218 (2), 286, 287, 290
412	$D_8 \times 2$	16	3780	496, 490, 482, 507, 499, 506, 500	213, 214, 235 (3), 239, 286 (3)
413	$D_8 \times 2$	16	11340	500, 483, 507, 485, 497, 509, 502	215, 216, 226 (2), 238, 240, 286
414	2^4	16	945	499 (4), 492 (6), 502 (4), 501	217 (4), 236 (4), 286 (6), 297 (3)
415	2^4	16	1890	492 (3), 503 (6), 504 (3), 507 (2), 491	220 (2), 232, 286 (3), 288, 289 (3)
416	$D_8 \times 2$	16	5670	492, 509 (2), 482 (2), 504, 489	221 (2), 286, 289, 299
417	$D_8 \times 2$	16	5670	501, 493, 506 (2), 485 (2), 504	222 (2), 237 (2), 286, 290, 298

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
418	$D_8 \times 2$	16	11340	490, 509, 503, 498, 502, 481, 506	228, 241, 245, 286
419	2^4	16	315	510 (9), 491 (6)	231 (2), 242 (2), 287 (9), 288 (6), 291 (6)
420	$D_8 \times 2$	16	5670	497 (2), 511 (2), 491, 495, 504	233, 288, 289, 290
421	$D_8 \times 2$	16	5670	510, 505 (2), 508 (2), 512, 488	234 (4), 291, 292, 295
422	$2^3 \cdot 2$	16	2835	489 (2), 510	287, 295 (2), 299 (2)
423	$D_8 \times 2$	16	2835	501, 508 (4), 494, 510	287, 292, 293, 294, 296, 297, 298
424	$D_8 \times 2$	16	5670	504, 510, 498 (2), 511 (2), 493	288, 298, 299
425	$D_8 \times 2$	16	5670	492, 511 (2), 480 (2), 495, 510	288, 297, 299
426	$2 \times 4 : 2$	16	5670	504, 495, 489	289, 290, 299
427	$D_8 \times 2$	16	2835	504 (2), 487 (4), 494	289 (2), 298, 300 (2)
428	$2 \times 4 : 2$	16	2835	501, 495 (2)	290 (2), 294 (2), 297
429	$2 \times 4 : 2$	16	5670	510, 512 (2)	291, 295, 296
430	$D_8 : 2$	16	5670	494, 512 (2), 508 (2), 484, 505	292, 300, 301
431	$8 : 2$	16	5670	494, 486 (2)	293, 300, 301
432	15	15	3024	531, 548	199, 302, 303, 304
433	D_{14}	14	4320	513, 550 (7)	37 (2), 246, 305
434	D_{14}	14	4320	513, 551 (7)	247, 305
435	14	14	4320	513, 552	248, 305
436	D_{12}	12	15120	525, 517, 528, 543 (3)	56 (2), 244, 278, 281, 317
437	A_4	12	2520	544, 549 (4)	59 (3), 271, 309 (3), 310, 311 (3)
438	D_{12}	12	3780	519, 515 (2), 544 (3)	118 (2), 211 (2), 264 (4), 314, 315, 316, 325, 328, 341, 345
439	D_{12}	12	15120	516, 525, 514, 540 (3)	120, 212, 234 (2), 262, 266, 317
440	D_{12}	12	1260	515, 520, 527, 541 (3)	121, 214 (4), 267 (4), 273 (4), 315 (6), 320 (3)
441	D_{12}	12	5040	517, 526, 514, 545 (3)	122, 213, 268, 282, 317 (3)
442	D_{12}	12	7560	527, 521, 515, 537 (3)	123, 216 (2), 270 (2), 274 (2), 315, 316, 319

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
443	D_{12}	12	15120	518, 528, 514, 537 (3)	124, 215, 226 (2), 269, 274, 317
444	D_{12}	12	3780	529, 515, 519, 538 (3)	126, 314, 318, 319, 320, 321, 322, 323
445	D_{12}	12	3780	530, 521, 515, 542 (3)	127, 316 (2), 320, 323 (2)
446	12	12	3780	519, 533	130 (2), 321, 325, 326, 327, 348, 364, 366
447	Q_{12}	12	3780	519, 532 (3)	137 (2), 322, 327, 328, 329, 356, 359, 365
448	2×6	12	15120	516, 518, 517, 535	153 (2), 236, 276, 283, 317
449	Q_{12}	12	3780	519, 533 (3)	194 (4), 227 (2), 321, 333, 341, 344, 350, 363, 365
450	A_4	12	1260	544, 547 (4)	195 (2), 271, 313, 334 (3), 336, 338 (3), 347 (3), 358, 360 (3)
451	A_4	12	126	539, 548 (4)	196 (5), 199 (6), 272 (10), 312 (10), 335, 337 (10), 339 (15), 340 (15)
452	12	12	3780	519, 536	197 (4), 230 (2), 322, 333, 342, 345, 351, 361, 366
453	D_{12}	12	3780	519, 521, 520, 537 (3)	198 (4), 229 (2), 269 (4), 270 (4), 315, 320, 327, 333, 343, 349, 352
454	D_{12}	12	30240	522, 523, 524, 543 (3)	210, 278, 279, 280
455	D_{12}	12	15120	516, 526, 528, 543 (3)	224 (2), 237, 277, 279 (2), 281, 317
456	D_{12}	12	5040	525, 526, 518, 535 (3)	228 (3), 275, 283, 317 (3)
457	2×6	12	1260	519 (3), 539	231 (2), 272, 318, 341 (3), 342 (3), 343, 348 (3), 354, 356 (3)
458	2×6	12	3780	519, 527 (2), 541	232 (2), 267 (4), 315, 319, 326, 329, 342, 344, 357

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
459	D_{12}	12	3780	521 (2), 519, 545 (3)	233 (2), 323, 343, 344, 345, 359, 362, 364
460	A_4	12	2520	539, 547 (4)	242 (2), 272, 330 (3), 353, 355 (3)
461	A_4	12	7560	546, 547 (4)	242, 331, 332, 346
462	D_{12}	12	3780	529 (2), 519, 540 (3)	266 (4), 318, 325, 329, 349, 350, 361, 362
463	2×6	12	3780	530 (2), 519, 545	268 (4), 323, 326, 328, 349, 351, 354, 363
464	2×6	12	1260	519 (3), 544	271, 314, 348 (3), 350 (3), 351 (3), 352, 357, 359 (3)
465	D_{12}	12	1260	530, 529, 520, 535 (3)	275 (4), 276 (4), 320 (3), 349 (6)
466	D_{12}	12	7560	530, 529, 521, 543 (3)	277 (2), 278 (2), 323, 349, 362
467	2×6	12	3780	530, 527, 519, 537	316, 320, 354, 357, 362, 365, 366
468	D_{12}	12	3780	521 (2), 519, 542 (3)	316, 319, 352, 356, 361, 363, 364
469	D_{12}	12	3780	529, 521, 527, 535 (3)	319 (2), 320, 362 (2)
470	D_{10}	10	756	531, 553 (5)	195 (4), 196, 302 (4), 368 (6), 369, 370 (6), 371 (3), 372 (3)
471	10	10	4536	531, 552	303 (2), 370, 375, 376
472	D_{10}	10	4536	531, 551 (5)	304 (2), 370, 376, 377
473	D_{10}	10	2268	531, 550 (5)	371, 374 (2), 376 (2), 378 (2)
474	10	10	2268	531, 553	371, 373, 374, 375, 377, 379, 380
475	3^2	9	1680	548, 549 (2), 547	271 (3), 306, 383 (3), 386, 388, 389, 392 (3), 393 (3), 394 (3)
476	3^2	9	840	548 (2), 547 (2)	272 (6), 306, 382 (6), 384 (6), 385, 387 (2), 390 (3), 391 (3), 400 (2)

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
477	3^2	9	1120	547 (3), 549	306, 307 (2), 308, 395 (9), 397 (3), 399 (3)
478	9	9	6720	549	307, 381
479	3^2	9	840	549 (4)	308 (4), 396, 398 (12)
480	D_8	8	5670	541, 540, 532	163 (4), 260 (2), 329 (2), 402 (2), 406, 425 (2)
481	D_8	8	11340	544, 533, 540	167 (2), 309 (2), 325, 334, 350, 402, 411, 418
482	D_8	8	3780	541, 533, 545	168 (2), 326, 344 (3), 402 (3), 412, 416 (3)
483	2×4	8	11340	533, 537, 532	169 (2), 251 (2), 327, 365, 402, 404, 413
484	Q_8	8	1890	534 (3)	177 (4), 324 (4), 403 (6), 430 (3)
485	D_8	8	11340	544, 532, 545	178 (2), 311 (2), 328, 359, 360, 402, 413, 417
486	8	8	11340	534	185 (2), 401, 403, 431
487	D_8	8	11340	543 (2), 534	186 (2), 401, 403, 427
488	2^3	8	270	546 (7)	200 (8), 331 (28), 421 (21)
489	2×4	8	5670	538, 533 (2)	249 (2), 321 (2), 404, 405, 409, 411, 416, 422, 426
490	2×4	8	3780	537, 533, 536	250 (6), 333 (3), 366, 404 (3), 412, 418 (3)
491	2^3	8	1890	538 (3), 540 (3), 539	252 (2), 318 (2), 339, 405 (3), 406 (3), 407, 411 (3), 415, 419, 420 (3)
492	2^3	8	5670	537 (2), 535 (2), 541, 542, 538	253 (2), 319 (2), 320 (2), 404, 406, 408, 414, 415, 416, 425
493	2×4	8	5670	536, 538, 532	254 (2), 256 (2), 322 (2), 404, 406, 407, 409, 410, 417, 424
494	2×4	8	2835	538, 534 (2)	255 (4), 405 (2), 408 (2), 410, 423, 427, 430 (2), 431 (2)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
495	2×4	8	5670	532 (2), 538	257 (2), 407, 408, 409, 420, 425, 426, 428
496	D_8	8	378	541, 536, 539	258 (6), 335, 342 (10), 406 (15), 412 (10)
497	D_8	8	5670	542, 532, 539	259 (2), 340, 355 (4), 356 (2), 406, 413 (2), 420 (2)
498	D_8	8	5670	542, 540, 536	261 (2), 361 (2), 406, 418 (2), 424 (2)
499	2^3	8	1260	541 (3), 537 (3), 544	310 (2), 315 (9), 357, 358, 402 (9), 412 (3), 414 (3)
500	D_8	8	3780	544, 533, 539	312, 313, 330 (6), 341 (3), 348, 411 (3), 412, 413 (3)
501	2^3	8	945	544 (4), 538 (3)	314 (4), 347 (4), 411 (6), 414, 417 (6), 423 (3), 428 (3)
502	2^3	8	3780	544, 542 (3), 537 (3)	316 (3), 338, 352, 413 (3), 414, 418 (3)
503	2^3	8	11340	537, 543 (2), 535 (2), 545, 540	317 (4), 349, 362, 402, 415, 418
504	2^3	8	5670	542 (2), 543 (2), 538, 545 (2)	323 (2), 415, 416, 417, 420, 424, 426, 427
505	D_8	8	5670	546 (2), 534	332 (4), 401 (2), 421 (2), 430
506	D_8	8	3780	544, 545, 536	336, 345 (3), 351, 412, 417 (3), 418 (3)
507	2^3	8	1260	545 (3), 537 (3), 539	337, 343 (3), 353 (2), 354, 412 (3), 413 (9), 415 (3)
508	D_8	8	11340	538, 534, 546	346 (2), 421, 423, 430
509	D_8	8	11340	542, 545, 533	363, 364, 413, 416, 418
510	2^3	8	2835	540 (4), 546 (2), 538	419, 421 (2), 422, 423, 424 (2), 425 (2), 429 (2)
511	D_8	8	11340	542, 532, 540	420, 424, 425
512	2×4	8	5670	534 (2), 546	421, 429 (2), 430 (2)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
513	7	7	4320	554	200 (4), 367, 433, 434, 435
514	S_3	6	5040	547, 553 (3)	195, 313, 330 (6), 346 (6), 383, 385, 439 (3), 441, 443 (3)
515	S_3	6	1260	548, 553 (3)	196, 312 (4), 384 (4), 385 (4), 438 (6), 440, 442 (6), 444 (3), 445 (3)
516	6	6	15120	547, 550	246 (2), 324 (2), 331 (2), 347, 382, 392, 395 (2), 439, 448, 455
517	6	6	5040	547, 551	247 (6), 358, 393, 400, 436 (3), 441, 448 (3)
518	6	6	5040	547, 552	248 (6), 338 (3), 353 (2), 389, 390, 443 (3), 448 (3), 456
519	6	6	3780	548, 553	302 (4), 339 (2), 383 (4), 384 (4), 438, 444, 446, 447, 449, 452, 453, 457, 458, 459, 462, 463, 464, 467, 468
520	S_3	6	84	548, 552 (3)	303 (36), 335 (6), 387 (20), 389 (20), 440 (15), 453 (45), 465 (15)
521	S_3	6	3780	548, 551 (3)	304 (4), 340 (2), 391 (4), 394 (4), 442 (2), 445, 453, 459 (2), 466 (2), 468 (2), 469
522	S_3	6	10080	549, 550 (3)	309 (3), 381 (2), 386, 395, 396, 454 (3)
523	6	6	10080	549, 551	310, 393, 398 (3), 399, 454 (3)
524	S_3	6	10080	549, 551 (3)	311 (3), 394 (3), 397, 398, 454 (3)
525	S_3	6	5040	547, 550 (3)	332 (6), 334 (3), 382, 386, 436 (3), 439 (3), 456

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
526	S_3	6	1680	547, 551 (3)	336 (3), 388, 399 (2), 400, 441 (3), 455 (9), 456 (3)
527	6	6	1260	548, 552	337 (4), 387 (4), 390 (4), 440, 442 (6), 458 (6), 467 (3), 469 (3)
528	S_3	6	15120	547, 551 (3)	355 (2), 360, 391, 394, 397 (2), 436, 443, 455
529	S_3	6	1260	548, 550 (3)	386 (4), 392 (4), 444 (3), 462 (6), 465, 466 (6), 469 (3)
530	6	6	1260	548, 551	388 (4), 393 (4), 445 (3), 463 (6), 465, 466 (6), 467 (3)
531	5	5	756	554	432 (4), 470, 471 (6), 472 (6), 473 (3), 474 (3)
532	4	4	5670	553	263 (4), 372 (2), 379 (2), 447 (2), 480, 483 (2), 485 (2), 493, 495 (2), 497, 511 (2)
533	4	4	3780	553	265 (2), 368 (6), 446, 449 (3), 481 (3), 482, 483 (3), 489 (3), 490, 500, 509 (3)
534	4	4	5670	550	284 (4), 378 (4), 484, 486 (2), 487 (2), 494, 505, 508 (2), 512 (2)
535	2^2	4	3780	551, 550, 552	305 (8), 376 (6), 448 (4), 456 (4), 465, 469 (3), 492 (3), 503 (6)
536	4	4	378	553	369 (10), 380 (6), 452 (10), 490 (10), 493 (15), 496, 498 (15), 506 (10)
537	2^2	4	3780	553, 552, 551	370 (6), 442 (6), 443 (12), 453 (3), 467, 483 (3), 490, 492 (3), 499, 502 (3), 503 (3), 507
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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
538	2^2	4	2835	553 (2), 550	371 (4), 444 (4), 489 (2), 491 (2), 492 (2), 493 (2), 494, 495 (2), 501, 504 (2), 508 (4), 510
539	2^2	4	126	553 (3)	373 (6), 451, 457 (10), 460 (20), 491 (15), 496 (3), 497 (45), 500 (30), 507 (10)
540	2^2	4	5670	550 (2), 553	374 (2), 439 (8), 462 (2), 480, 481 (2), 491, 498, 503 (2), 510 (2), 511 (2)
541	2^2	4	378	552 (2), 553	375 (6), 440 (10), 458 (10), 480 (15), 482 (10), 492 (15), 496, 499 (10)
542	2^2	4	5670	551 (2), 553	377 (2), 445 (2), 468 (2), 492, 497, 498, 502 (2), 504 (2), 509 (2), 511 (2)
543	2^2	4	11340	551 (2), 550	436 (4), 454 (8), 455 (4), 466 (2), 487 (2), 503 (2), 504
544	2^2	4	1260	553 (3)	437 (2), 438 (9), 450, 464, 481 (9), 485 (9), 499, 500 (3), 501 (3), 502 (3), 506 (3)
545	2^2	4	3780	553, 551 (2)	441 (4), 459 (3), 463, 482, 485 (3), 503 (3), 504 (3), 506, 507, 509 (3)
546	2^2	4	1890	550 (3)	461 (4), 488, 505 (6), 508 (6), 510 (3), 512 (3)
547	3	3	1680	554	367 (18), 450 (3), 460 (6), 461 (18), 475, 476, 477 (2), 514 (3), 516 (9), 517 (3), 518 (3), 525 (3), 526, 528 (9)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
548	3	3	84	554	432 (36), 451 (6), 475 (20), 476 (20), 515 (15), 519 (45), 520, 521 (45), 527 (15), 529 (15), 530 (15)
549	3	3	1120	554	437 (9), 475 (3), 477, 478 (6), 479 (3), 522 (9), 523 (9), 524 (9)
550	2	2	945	554	433 (32), 473 (12), 516 (16), 522 (32), 525 (16), 529 (4), 534 (6), 535 (4), 538 (3), 540 (12), 543 (12), 546 (6)
551	2	2	1260	554	434 (24), 472 (18), 517 (4), 521 (9), 523 (8), 524 (24), 526 (4), 528 (36), 530, 535 (3), 537 (3), 542 (9), 543 (18), 545 (6)
552	2	2	36	554	435 (120), 471 (126), 518 (140), 520 (7), 527 (35), 535 (105), 537 (105), 541 (21)
553	2	2	378	554	470 (10), 474 (6), 514 (40), 515 (10), 519 (10), 532 (15), 533 (10), 536, 537 (10), 538 (15), 539, 540 (15), 541, 542 (15), 544 (10), 545 (10)
554	1	1	1		513 (4320), 531 (756), 547 (1680), 548 (84), 549 (1120), 550 (945), 551 (1260), 552 (36), 553 (378)

TABLE 1. Subgroup lattice of S_9

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