

THE SUBGROUP LATTICE OF $P\Sigma L_2(8) \cong P\Gamma L_2(8) \cong L_2(8) : 3$

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
1	$L_2(8) : 3$	1512	1	2, 3 (9), 5 (28), 6 (36)	
2	$L_2(8)$	504	1	4 (9), 10 (28), 12 (36)	1
3	$2^3 : 7 : 3$	168	9	4, 8 (7), 9 (8)	1
4	$2^3 : 7$	56	9	17, 18 (8)	2, 3
5	$3^{1+2} : 2$	54	28	7, 10, 11 (3)	1
6	$7 : 3 : 2$	42	36	9, 12, 19 (7)	1
7	3^{1+2}	27	28	14, 15 (2), 16	5
8	$A_4 \times 2$	24	63	13, 17, 19 (4)	3
9	$7 : 3$	21	36	18, 22 (7)	3 (2), 6
10	D_{18}	18	28	16, 20 (3)	2, 5
11	$S_3 \times 3$	18	84	14, 20, 19 (3)	5
12	D_{14}	14	36	18, 24 (7)	2, 6
13	A_4	12	63	21, 22 (4)	8
14	3^2	9	28	22 (3), 23	7, 11 (3)
15	9	9	56	23	7
16	9	9	28	23	7, 10
17	2^3	8	9	21 (7)	4, 8 (7)
18	7	7	36	25	4 (2), 9, 12
19	6	6	252	22, 24	6, 8, 11
20	S_3	6	84	23, 24 (3)	10, 11
21	2^2	4	63	24 (3)	13, 17
22	3	3	84	25	9 (3), 13 (3), 14, 19 (3)
23	3	3	28	25	14, 15 (2), 16, 20 (3)
24	2	2	63	25	12 (4), 19 (4), 20 (4), 21 (3)
25	1	1	1		18 (36), 22 (84), 23 (28), 24 (63)

TABLE 1. Subgroup lattice of $L_2(8) : 3$

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