Minimal Degrees of Faithful Representations for Sporadic Simple Groups and their Covering Groups

group	$p=0$	$p=2$	$p=3$	$p=5$	$p=7$	$p=11$	$p=13$	$p=17$	$p=19$	$p=23$
M_{11}	10	10	5	10	–	9	–	–	–	–
M_{12}	11	10	10	11	–	11	–	–	–	–
$2^{\cdot}M_{12}$	10	–	6	10	–	10	–	–	–	–
J_1	56	20	56	56	31	7	–	–	22	–
M_{22}	21	10	21	21	21	20	–	–	–	–
$2^{\cdot}M_{22}$	10	–	10	10	10	10	–	–	–	–
$3^{\cdot}M_{22}$	21	6	–	21	21	21	–	–	–	–
$4^{\cdot}M_{22}$	56	–	56	56	16	56	–	–	–	–
$6^{\cdot}M_{22}$	66	–	–	66	54	36	–	–	–	–
$12^{\cdot}M_{22}$	120	–	–	48	120	24	–	–	–	–
J_2	14	6	13	14	14	–	–	–	–	–
$2^{\cdot}J_2$	6	–	6	6	6	–	–	–	–	–
M_{23}	22	11	22	22	22	22	–	–	–	21
HS	22	20	22	21	22	22	–	–	–	–
$2^{\cdot}HS$	56	–	56	28	56	56	–	–	–	–
J_3	85	78	18	85	–	–	–	85	85	–
$3^{\cdot}J_3$	18	9	–	18	–	–	–	18	18	–
M_{24}	23	11	22	23	23	23	–	–	–	23
M^cL	22	22	21	21	22	22	–	–	–	–
$3^{\cdot}M^cL$	126	126	–	45	126	126	–	–	–	–
He	51	51	51	51	50	–	–	51	–	–
Ru	378	28	378	133	378	–	378	–	–	–
$2^{\cdot}Ru$	28	–	28	28	28	–	28	–	–	–
Suz	143	110	64	143	143	143	143	–	–	–
$2^{\cdot}Suz$	220	–	12	220	220	220	220	–	–	–
$3^{\cdot}Suz$	66	12	–	66	66	66	66	–	–	–
$6^{\cdot}Suz$	12	–	–	12	12	12	12	–	–	–
$O'N$	10944	10944	154	10943	406	10787	–	–	10944	–
$3^{\cdot}O'N$	342	153	–	342	45	342	–	–	342	–
Co_3	23	22	22	23	23	23	–	–	–	23
Co_2	23	22	23	23	23	23	–	–	–	23
Fi_{22}	78	78	77	78	78	78	78	–	–	–
$2^{\cdot}Fi_{22}$	352	–	176	352	352	352	352	–	–	–
$3^{\cdot}Fi_{22}$	351	27	–	351	351	351	351	–	–	–
$6^{\cdot}Fi_{22}$	1728	–	–	1728	1728	1728	1728	–	–	–
HN	133	132	133	133	133	133	–	–	133	–
Ly	2480	2480	651	111	2480	2480	–	–	–	–
Th	248	248	248	248	248	–	248	–	248	–
Fi_{23}	782	782	253	782	782	782	782	782	–	782
Co_1	276	24	276	276	276	276	276	–	–	276
$2^{\cdot}Co_1$	24	–	24	24	24	24	24	–	–	24
J_4	1333	112	1333	1333	1333	1333	–	–	–	1333
F_{3+}	8671	3774	781	8671	8671	8671	8671	8671	–	8671
$3^{\cdot}F_{3+}$	783	783	–	783	783	783	783	783	–	783
B	4371	4370	4371	4371	4371	4371	4371	4371	4371	4371
$2^{\cdot}B$	96256	–	96256	96256	96256	96256	96256	96256	96256	96256
M	196883	196882	196882	196883	196883	196883	196883	196883	196883	196883

Minimal Degrees of Faithful Representations for Sporadic Simple Groups and their Covering Groups (continued)

group	$p=29$	$p=31$	$p=37$	$p=41$	$p=43$	$p=47$	$p=59$	$p=67$	$p=71$
M_{11}	–	–	–	–	–	–	–	–	–
M_{12}	–	–	–	–	–	–	–	–	–
$2^{\cdot}M_{12}$	–	–	–	–	–	–	–	–	–
J_1	–	–	–	–	–	–	–	–	–
M_{22}	–	–	–	–	–	–	–	–	–
$2^{\cdot}M_{22}$	–	–	–	–	–	–	–	–	–
$3^{\cdot}M_{22}$	–	–	–	–	–	–	–	–	–
$4^{\cdot}M_{22}$	–	–	–	–	–	–	–	–	–
$6^{\cdot}M_{22}$	–	–	–	–	–	–	–	–	–
$12^{\cdot}M_{22}$	–	–	–	–	–	–	–	–	–
J_2	–	–	–	–	–	–	–	–	–
$2^{\cdot}J_2$	–	–	–	–	–	–	–	–	–
M_{23}	–	–	–	–	–	–	–	–	–
HS	–	–	–	–	–	–	–	–	–
$2^{\cdot}HS$	–	–	–	–	–	–	–	–	–
J_3	–	–	–	–	–	–	–	–	–
$3^{\cdot}J_3$	–	–	–	–	–	–	–	–	–
M_{24}	–	–	–	–	–	–	–	–	–
M^cL	–	–	–	–	–	–	–	–	–
$3^{\cdot}M^cL$	–	–	–	–	–	–	–	–	–
He	–	–	–	–	–	–	–	–	–
Ru	378	–	–	–	–	–	–	–	–
$2^{\cdot}Ru$	28	–	–	–	–	–	–	–	–
Suz	–	–	–	–	–	–	–	–	–
$2^{\cdot}Suz$	–	–	–	–	–	–	–	–	–
$3^{\cdot}Suz$	–	–	–	–	–	–	–	–	–
$6^{\cdot}Suz$	–	–	–	–	–	–	–	–	–
$O'N$	–	1869	–	–	–	–	–	–	–
$3^{\cdot}O'N$	–	342	–	–	–	–	–	–	–
Co_3	–	–	–	–	–	–	–	–	–
Co_2	–	–	–	–	–	–	–	–	–
Fi_{22}	–	–	–	–	–	–	–	–	–
$2^{\cdot}Fi_{22}$	–	–	–	–	–	–	–	–	–
$3^{\cdot}Fi_{22}$	–	–	–	–	–	–	–	–	–
$6^{\cdot}Fi_{22}$	–	–	–	–	–	–	–	–	–
HN	–	–	–	–	–	–	–	–	–
Ly	–	2480	2480	–	–	–	–	2480	–
Th	–	248	–	–	–	–	–	–	–
Fi_{23}	–	–	–	–	–	–	–	–	–
Co_1	–	–	–	–	–	–	–	–	–
$2^{\cdot}Co_1$	–	–	–	–	–	–	–	–	–
J_4	1333	1333	1333	–	1333	–	–	–	–
F_{3+}	8671	–	–	–	–	–	–	–	–
$3^{\cdot}F_{3+}$	783	–	–	–	–	–	–	–	–
B	–	4371	–	–	–	4371	–	–	–
$2^{\cdot}B$	–	96256	–	–	–	96256	–	–	–
M	196883	196883	–	196883	–	196883	196883	–	196883