

TABLE 1. List of (possibly) symmetric MIPLIB 2017 instances after presolving with a prerelease version of SCIP 7. Additionally the \log_{10} of the order of their symmetry groups and the number of variables involved in a nontrivial symmetry is shown. Here, \mathcal{S}_k denotes a symmetric group of degree k in coordinate action, $M(G, \ell)$ represents the matrix action of group G on ℓ points, and “unknown” denotes groups whose type could not be determined by `PermLib`.

name	$\log_{10} G $	#vars	factors
30_70_45_095_100	0.3	0.0	\mathcal{S}_2
30_70_45_095_98	0.3	0.0	\mathcal{S}_2
8div-n59k10	6.6	99.7	1 unknown
8div-n59k11	7.6	99.8	1 unknown
8div-n59k12	8.7	99.9	1 unknown
a2864-99blp	2.4	6.9	1 unknown
ab51-40-100	inf	48.3	$(\mathcal{S}_2)^{84}, (M(\mathcal{S}_2, 16))^7, (M(\mathcal{S}_2, 20))^{10}, (M(\mathcal{S}_3, 24))^2, M(\mathcal{S}_4, 32), 119$ unknown
ab67-40-100	inf	44.6	$(\mathcal{S}_2)^{85}, (M(\mathcal{S}_2, 16))^9, (M(\mathcal{S}_2, 20))^{10}, (M(\mathcal{S}_3, 24))^2, M(\mathcal{S}_4, 32), M(\mathcal{S}_6, 48), M(\mathcal{S}_7, 56), 85$ unknown
ab69-40-100	inf	47.1	$(\mathcal{S}_2)^{84}, (M(\mathcal{S}_2, 16))^{10}, (M(\mathcal{S}_2, 20))^9, (M(\mathcal{S}_3, 24))^3, M(\mathcal{S}_4, 32), M(\mathcal{S}_6, 48), M(\mathcal{S}_7, 56), 84$ unknown
ab71-20-100	inf	38.1	$(\mathcal{S}_2)^{460}, (M(\mathcal{S}_2, 16))^8, (M(\mathcal{S}_2, 20))^3, (M(\mathcal{S}_3, 24))^2, 49$ unknown
ab72-40-100	inf	49.9	$(\mathcal{S}_2)^{758}, (M(\mathcal{S}_2, 16))^9, (M(\mathcal{S}_2, 20))^8, (M(\mathcal{S}_3, 24))^2, M(\mathcal{S}_4, 32), (M(\mathcal{S}_6, 48))^2, M(\mathcal{S}_7, 56), 83$ unknown
academictimetablebig	232.8	70.3	$(\mathcal{S}_2)^{70}, (M(\mathcal{S}_2, 6))^{35}, M(\mathcal{S}_2, 14), (M(\mathcal{S}_2, 80))^2, M(\mathcal{S}_2, 634), M(\mathcal{S}_2, 1000), M(\mathcal{S}_3, 540), M(\mathcal{S}_3, 645), M(\mathcal{S}_3, 750), M(\mathcal{S}_3, 951), (M(\mathcal{S}_4, 160))^4, (M(\mathcal{S}_5, 40))^{34}, 6$ unknown
academictimetablesmall	inf	71.0	$(\mathcal{S}_2)^{10}, M(\mathcal{S}_2, 328), 2$ unknown
acc-tight2	4.6	97.8	1 unknown
acc-tight4	4.6	93.3	1 unknown
allcolor10	13.7	51.8	1 unknown
allcolor58	21.7	53.6	1 unknown
amaze2012-03-15i	—	—	—
amaze2012-06-28i	—	—	—
amaze2012-07-04i	—	—	—
app2-1	9.1	1.7	$(\mathcal{S}_2)^{22}, \mathcal{S}_3, \mathcal{S}_4, M(\mathcal{S}_2, 4)$
assign1-10-4	19.1	97.9	1 unknown
assign1-5-8	4.7	85.9	1 unknown
b-ball	12.2	88.0	1 unknown
bab2	0.9	25.0	$(M(\mathcal{S}_2, 12312))^3$
bab3	0.9	9.4	$(M(\mathcal{S}_2, 12312))^3$
bab5	1.5	22.0	$(M(\mathcal{S}_2, 952))^5$
bab6	1.5	30.1	$(M(\mathcal{S}_2, 6882))^5$
berlin_5_8_0	0.3	6.8	$M(\mathcal{S}_2, 74)$
bharat	—	—	—
biella1	213.2	11.6	$(\mathcal{S}_2)^{262}, (\mathcal{S}_3)^{28}, (\mathcal{S}_4)^{18}, (\mathcal{S}_5)^{13}, (\mathcal{S}_6)^2, (\mathcal{S}_7)^5, \mathcal{S}_8, (\mathcal{S}_9)^2, (\mathcal{S}_{10})^2, \mathcal{S}_{11}$

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name	$\log_{10} G $	#vars	factors
bley_xs1	0.3	0.2	$M(\mathcal{S}_2, 8)$
bley_xs1noM	0.3	0.2	$M(\mathcal{S}_2, 8)$
bley_xs2	4.1	3.9	$M(\mathcal{S}_2, 8), M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 14), M(\mathcal{S}_2, 16), M(\mathcal{S}_3, 12), M(\mathcal{S}_5, 35)$
bmcobd2	inf	2.9	$(\mathcal{S}_2)^{28}, (\mathcal{S}_3)^8, (\mathcal{S}_4, (\mathcal{S}_5)^2, (M(\mathcal{S}_2, 4))^{147}, (M(\mathcal{S}_2, 6))^{17}, (M(\mathcal{S}_2, 8))^{14}, (M(\mathcal{S}_2, 10))^{11}, (M(\mathcal{S}_2, 12))^{48}, (M(\mathcal{S}_2, 14))^{59}, (M(\mathcal{S}_2, 16))^{94}, (M(\mathcal{S}_2, 18))^{83}, (M(\mathcal{S}_2, 20))^{19}, (M(\mathcal{S}_2, 22))^{10}, M(\mathcal{S}_2, 24), (M(\mathcal{S}_2, 26))^{8}, (M(\mathcal{S}_2, 30))^{84}, (M(\mathcal{S}_3, 6))^{29}, (M(\mathcal{S}_3, 9))^{3}, (M(\mathcal{S}_3, 12))^{5}, (M(\mathcal{S}_3, 18))^{2}, (M(\mathcal{S}_3, 21))^{13}, (M(\mathcal{S}_3, 24))^{11}, (M(\mathcal{S}_3, 27))^{7}, (M(\mathcal{S}_3, 30))^{2}, M(\mathcal{S}_3, 33), M(\mathcal{S}_3, 36), (M(\mathcal{S}_3, 39))^{2}, (M(\mathcal{S}_3, 45))^{8}, (M(\mathcal{S}_4, 8))^{8}, (M(\mathcal{S}_4, 12))^{2}, M(\mathcal{S}_4, 16), (M(\mathcal{S}_4, 24))^{2}, (M(\mathcal{S}_4, 28))^{3}, (M(\mathcal{S}_4, 32))^{2}, (M(\mathcal{S}_4, 36))^{3}, M(\mathcal{S}_4, 40), M(\mathcal{S}_4, 44), (M(\mathcal{S}_4, 60))^{3}, (M(\mathcal{S}_5, 10))^{5}, M(\mathcal{S}_5, 15), M(\mathcal{S}_5, 25), M(\mathcal{S}_5, 35), M(\mathcal{S}_5, 40), M(\mathcal{S}_5, 45), (M(\mathcal{S}_6, 12))^{2}, (M(\mathcal{S}_6, 42))^{2}, M(\mathcal{S}_7, 105), M(\mathcal{S}_8, 16), M(\mathcal{S}_8, 56)$
bmcobd3	inf	10.6	$(M(\mathcal{S}_2, 8))^{28}, (M(\mathcal{S}_2, 14))^{122}, (M(\mathcal{S}_2, 20))^{38}, (M(\mathcal{S}_2, 26))^{13}, (M(\mathcal{S}_2, 32))^{12}, (M(\mathcal{S}_2, 44))^{35}, (M(\mathcal{S}_2, 50))^{17}, (M(\mathcal{S}_2, 56))^{59}, (M(\mathcal{S}_2, 62))^{177}, (M(\mathcal{S}_2, 74))^{19}, (M(\mathcal{S}_2, 80))^{11}, (M(\mathcal{S}_2, 92))^{8}, (M(\mathcal{S}_2, 110))^{84}, (M(\mathcal{S}_3, 12))^{8}, (M(\mathcal{S}_3, 21))^{25}, (M(\mathcal{S}_3, 30))^{7}, (M(\mathcal{S}_3, 39))^{3}, (M(\mathcal{S}_3, 48))^{2}, (M(\mathcal{S}_3, 75))^{2}, (M(\mathcal{S}_3, 84))^{13}, (M(\mathcal{S}_3, 93))^{18}, (M(\mathcal{S}_3, 111))^{2}, (M(\mathcal{S}_3, 120))^{2}, (M(\mathcal{S}_3, 138))^{2}, (M(\mathcal{S}_3, 165))^{8}, M(\mathcal{S}_4, 16), (M(\mathcal{S}_4, 28))^{7}, (M(\mathcal{S}_4, 40))^{3}, M(\mathcal{S}_4, 64), M(\mathcal{S}_4, 88), M(\mathcal{S}_4, 100), (M(\mathcal{S}_4, 112))^{3}, (M(\mathcal{S}_4, 124))^{5}, M(\mathcal{S}_4, 148), M(\mathcal{S}_4, 160), (M(\mathcal{S}_4, 220))^{3}, (M(\mathcal{S}_5, 20))^{2}, (M(\mathcal{S}_5, 35))^{4}, (M(\mathcal{S}_5, 50))^{2}, M(\mathcal{S}_5, 110), M(\mathcal{S}_5, 140), (M(\mathcal{S}_5, 155))^{2}, (M(\mathcal{S}_6, 42))^{2}, (M(\mathcal{S}_6, 168))^{2}, M(\mathcal{S}_7, 385), M(\mathcal{S}_8, 56), M(\mathcal{S}_8, 224)$
bmoipr2	49.9	5.8	$(\mathcal{S}_2)^{36}, (\mathcal{S}_3)^3, (\mathcal{S}_4)^2, (\mathcal{S}_5)^2, (M(\mathcal{S}_2, 6))^{10}, (M(\mathcal{S}_2, 12))^{20}, (M(\mathcal{S}_2, 16))^{34}, M(\mathcal{S}_2, 50), (M(\mathcal{S}_3, 9))^{2}, M(\mathcal{S}_3, 18), (M(\mathcal{S}_3, 24))^{4}, M(\mathcal{S}_4, 12), M(\mathcal{S}_4, 32), M(\mathcal{S}_5, 15)$
brazil3	65.4	21.6	$(M(\mathcal{S}_2, 34))^{9}, (M(\mathcal{S}_2, 40))^{6}, (M(\mathcal{S}_3, 63))^{6}, (M(\mathcal{S}_4, 84))^{3}, (M(\mathcal{S}_5, 105))^{6}, 2 \text{ unknown}$
breastcancer-regularized	177.3	39.2	$(\mathcal{S}_2)^{18}, (\mathcal{S}_3)^8, (\mathcal{S}_4)^2, (\mathcal{S}_5)^2, (\mathcal{S}_7)^2, \mathcal{S}_8, (\mathcal{S}_9)^3, (\mathcal{S}_{10})^5, \mathcal{S}_{12}, \mathcal{S}_{20}, \mathcal{S}_{21}, \mathcal{S}_{23}, \mathcal{S}_{27}$
bts4-cta	0.6	0.0	$(M(\mathcal{S}_2, 10))^{2}$
cdc7-4-3-2	14.2	100.0	1 unknown
cdma	8.7	61.9	$M(\mathcal{S}_{12}, 4884)$
chromaticindex1024-7	1.7	100.0	1 unknown
chromaticindex128-5	1.7	100.0	1 unknown
chromaticindex256-8	1.7	100.0	1 unknown
chromaticindex32-8	1.7	100.0	1 unknown

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name	$\log_{10} G $	#vars	factors
chromaticindex512-7	1.7	100.0	1 unknown
circ10-3	1.3	100.0	1 unknown
co-100	0.6	0.0	$(\mathcal{S}_2)^2$
cod105	10.6	100.0	1 unknown
comp07-2idx	10.9	4.3	$(\mathcal{S}_2)^{28}, (\mathcal{S}_3)^2, (M(\mathcal{S}_2, 62))^2, M(\mathcal{S}_2, 562)$
comp08-2idx	24.9	3.6	$(\mathcal{S}_2)^{34}, (\mathcal{S}_3)^8, \mathcal{S}_4, (\mathcal{S}_6)^2, M(\mathcal{S}_2, 58), M(\mathcal{S}_2, 100), M(\mathcal{S}_3, 150)$
comp12-2idx	280.0	15.4	$(\mathcal{S}_2)^{322}, (\mathcal{S}_3)^{74}, (\mathcal{S}_4)^{22}, (\mathcal{S}_5)^4, (\mathcal{S}_6)^4, (\mathcal{S}_8)^3, 1 \text{ unknown}$
comp16-3idx	6.2	0.2	$(\mathcal{S}_2)^7, (\mathcal{S}_3)^2, M(\mathcal{S}_2, 10), M(\mathcal{S}_2, 14), (M(\mathcal{S}_2, 18))^2, (M(\mathcal{S}_2, 20))^2, M(\mathcal{S}_3, 30)$
comp21-2idx	33.9	2.1	$(\mathcal{S}_2)^{62}, (\mathcal{S}_3)^8, (\mathcal{S}_4)^3, \mathcal{S}_8, M(\mathcal{S}_2, 62)$
core2536-691	3.3	1.6	$M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 16), M(\mathcal{S}_2, 20), M(\mathcal{S}_2, 22), M(\mathcal{S}_2, 24), M(\mathcal{S}_2, 28), (M(\mathcal{S}_2, 30))^2, 1 \text{ unknown}$
core2586-950	1.2	0.4	$M(\mathcal{S}_2, 4), M(\mathcal{S}_2, 6), M(\mathcal{S}_2, 10), M(\mathcal{S}_2, 38)$
core4284-1064	3.2	0.9	$(M(\mathcal{S}_2, 4))^2, M(\mathcal{S}_2, 6), M(\mathcal{S}_2, 8), M(\mathcal{S}_2, 10), M(\mathcal{S}_2, 16), (M(\mathcal{S}_2, 36))^2, M(\mathcal{S}_3, 66)$
core4872-1529	2.1	0.4	$(M(\mathcal{S}_2, 4))^2, (M(\mathcal{S}_2, 6))^2, M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 28), M(\mathcal{S}_2, 30)$
cryptanalysiskb128n5obj14	37.4	0.3	$(\mathcal{S}_3)^{48}$
cryptanalysiskb128n5obj16	64.4	0.7	$(\mathcal{S}_2)^{90}, (\mathcal{S}_3)^{48}$
cvrpa-n64k9vrpi	—	—	—
cvrpb-n45k5vrpi	—	—	—
cvrpp-n16k8vrpi	—	—	—
cvrpsimple2i	—	—	—
cvs08r139-94	32.8	100.0	1 unknown
cvs16r106-72	49.9	100.0	1 unknown
cvs16r128-89	42.2	100.0	1 unknown
cvs16r70-62	13.3	100.0	$M(\mathcal{S}_{16}, 2112)$
cvs16r89-60	32.6	100.0	1 unknown
dc1c	inf	19.7	$(\mathcal{S}_2)^{819}, (\mathcal{S}_3)^{64}, (\mathcal{S}_4)^{23}, (\mathcal{S}_5)^2, (\mathcal{S}_6)^7$
dc1l	inf	7.1	$(\mathcal{S}_2)^{989}, (\mathcal{S}_3)^{134}, (\mathcal{S}_4)^{44}, (\mathcal{S}_5)^{15}, (\mathcal{S}_6)^3, (\mathcal{S}_7)^2$
decomp1	67.4	40.0	$\mathcal{S}_2, \mathcal{S}_6, 2 \text{ unknown}$
decomp2	83.1	39.5	$\mathcal{S}_2, \mathcal{S}_8, 2 \text{ unknown}$
dell	—	—	—
diameterc-mstc-v20a190d5i	—	—	—
diameterc-msts-v40a100d5i	—	—	—
dlr1	—	—	—
dolom1	inf	18.6	$(\mathcal{S}_2)^{906}, (\mathcal{S}_3)^{71}, (\mathcal{S}_4)^{24}, (\mathcal{S}_5)^6, \mathcal{S}_7$
drayage-100-12	95.8	61.3	1 unknown
drayage-100-23	95.8	61.3	1 unknown
drayage-25-23	95.8	61.3	1 unknown
drayage-25-27	95.8	61.3	1 unknown
drayage-25-32	95.8	61.3	1 unknown
ds-big	15.1	0.1	$(\mathcal{S}_2)^{50}$
elitserienhandball11i	—	—	—
elitserienhandball13i	—	—	—

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name	$\log_{10} G $	#vars	factors
elitserienhandball14i	—	—	—
elitserienhandball3i	—	—	—
enlight11	0.3	90.9	$M(\mathcal{S}_2, 220)$
enlight4	0.3	75.0	$M(\mathcal{S}_2, 24)$
enlight8	0.3	87.5	$M(\mathcal{S}_2, 112)$
enlight9	0.3	88.9	$M(\mathcal{S}_2, 144)$
ex10	2.6	0.1	1 unknown
ex9	2.6	0.1	1 unknown
fastxgemm-n2r6s0t2	2.3	93.9	1 unknown
fastxgemm-n2r7s4t1	2.9	93.8	1 unknown
fastxgemm-n3r21s3t6	4.5	97.1	1 unknown
fastxgemm-n3r22s4t6	8.7	98.0	1 unknown
fastxgemm-n3r23s5t6	1.1	45.1	$M(\mathcal{S}_2, 1674), M(\mathcal{S}_2, 5022)$
fhnw-binpack4-18	9.8	65.0	1 unknown
fhnw-binpack4-4	6.6	75.0	1 unknown
fhnw-binpack4-77	0.3	9.5	$M(\mathcal{S}_2, 372)$
fhnw-binschedule0	—	—	—
fhnw-binschedule2	inf	100.0	1 unknown
fhnw-sq3	2.8	28.0	$(M(\mathcal{S}_2, 98))^4, (M(\mathcal{S}_3, 147))^2$ $(\mathcal{S}_2)^{28}, (\mathcal{S}_3)^{18}, (\mathcal{S}_4)^{22}, (\mathcal{S}_5)^2, (\mathcal{S}_6)^9, (\mathcal{S}_7)^3, \mathcal{S}_8, \mathcal{S}_{11},$ $(\mathcal{S}_{12})^2, \mathcal{S}_{14}, \mathcal{S}_{15}, \mathcal{S}_{17}, \mathcal{S}_{18}, \mathcal{S}_{19}, \mathcal{S}_{21}, \mathcal{S}_{26}, \mathcal{S}_{35},$ $(M(\mathcal{S}_2, 6))^{12}, (M(\mathcal{S}_2, 8))^9, (M(\mathcal{S}_2, 10))^4,$ $(M(\mathcal{S}_2, 12))^4, (M(\mathcal{S}_2, 14))^2, (M(\mathcal{S}_2, 16))^3, M(\mathcal{S}_2, 18),$ $(M(\mathcal{S}_2, 20))^3, (M(\mathcal{S}_2, 22))^7, M(\mathcal{S}_2, 24), M(\mathcal{S}_2, 26),$ $M(\mathcal{S}_2, 28), (M(\mathcal{S}_2, 36))^6, (M(\mathcal{S}_2, 62))^2, (M(\mathcal{S}_2, 86))^3,$ $(M(\mathcal{S}_3, 9))^6, (M(\mathcal{S}_3, 12))^3, M(\mathcal{S}_3, 15), M(\mathcal{S}_3, 18),$ $M(\mathcal{S}_3, 24), (M(\mathcal{S}_3, 33))^4, (M(\mathcal{S}_3, 36))^4, M(\mathcal{S}_3, 39),$ $(M(\mathcal{S}_3, 42))^5, (M(\mathcal{S}_3, 54))^4, (M(\mathcal{S}_3, 93))^5,$ $M(\mathcal{S}_3, 129), (M(\mathcal{S}_4, 12))^4, M(\mathcal{S}_4, 16), (M(\mathcal{S}_4, 32))^2,$ $(M(\mathcal{S}_4, 44))^5, M(\mathcal{S}_4, 48), (M(\mathcal{S}_4, 52))^2, M(\mathcal{S}_4, 56),$ $M(\mathcal{S}_4, 72), (M(\mathcal{S}_5, 15))^2, M(\mathcal{S}_5, 20), M(\mathcal{S}_5, 35),$ $M(\mathcal{S}_5, 65), M(\mathcal{S}_5, 70), (M(\mathcal{S}_5, 90))^2, M(\mathcal{S}_5, 215),$ $M(\mathcal{S}_6, 18), M(\mathcal{S}_6, 24), (M(\mathcal{S}_6, 48))^2, M(\mathcal{S}_6, 78),$ $(M(\mathcal{S}_6, 84))^2, M(\mathcal{S}_6, 108), M(\mathcal{S}_6, 186), (M(\mathcal{S}_6, 258))^2,$ $(M(\mathcal{S}_7, 21))^2, (M(\mathcal{S}_7, 77))^2, (M(\mathcal{S}_7, 126))^2,$ $M(\mathcal{S}_8, 32), M(\mathcal{S}_8, 88), M(\mathcal{S}_9, 27), M(\mathcal{S}_9, 99),$ $M(\mathcal{S}_9, 279), M(\mathcal{S}_{10}, 310), M(\mathcal{S}_{11}, 121), M(\mathcal{S}_{11}, 154),$ $M(\mathcal{S}_{11}, 473), M(\mathcal{S}_{12}, 48), M(\mathcal{S}_{12}, 96), M(\mathcal{S}_{12}, 132),$ $M(\mathcal{S}_{12}, 144), M(\mathcal{S}_{12}, 168), M(\mathcal{S}_{12}, 216), M(\mathcal{S}_{12}, 372),$ $(M(\mathcal{S}_{12}, 516))^2, (M(\mathcal{S}_{13}, 143))^2, M(\mathcal{S}_{13}, 182),$ $M(\mathcal{S}_{13}, 234), M(\mathcal{S}_{13}, 559), M(\mathcal{S}_{14}, 196), M(\mathcal{S}_{14}, 252),$ $M(\mathcal{S}_{15}, 135), M(\mathcal{S}_{15}, 240), M(\mathcal{S}_{15}, 645),$ $(M(\mathcal{S}_{16}, 176))^2, M(\mathcal{S}_{17}, 51), M(\mathcal{S}_{18}, 54), M(\mathcal{S}_{18}, 774),$ $M(\mathcal{S}_{21}, 252), M(\mathcal{S}_{22}, 396), M(\mathcal{S}_{23}, 69), M(\mathcal{S}_{27}, 837),$ $M(\mathcal{S}_{29}, 406), M(\mathcal{S}_{30}, 540), M(\mathcal{S}_{31}, 434), M(\mathcal{S}_{32}, 352),$ $M(\mathcal{S}_{37}, 518), M(\mathcal{S}_{37}, 666), M(\mathcal{S}_{38}, 684), M(\mathcal{S}_{41}, 451),$ $M(\mathcal{S}_{42}, 462), M(\mathcal{S}_{46}, 1978), M(\mathcal{S}_{79}, 1106),$ $M(\mathcal{S}_{84}, 1512), M(\mathcal{S}_{95}, 1045), M(\mathcal{S}_{120}, 5160)$

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name	$\log_{10} G $	#vars	factors
fillomino7x7-0i	—	—	—
fjspeasy01i	—	—	—
g503inf	—	—	—
gasprod2-1	1.2	0.0	$(\mathcal{S}_2)^4$
gasprod2-2	3.0	0.1	$(\mathcal{S}_2)^{10}$
gen	1.2	22.1	$(\mathcal{S}_2)^3, M(\mathcal{S}_2, 186)$
genus-g31-8	28.0	90.7	$M(\mathcal{S}_{27}, 3159)$
genus-g61-25	78.4	95.6	$M(\mathcal{S}_{58}, 13746)$
genus-sym-g31-8	0.3	6.7	$M(\mathcal{S}_2, 232)$
genus-sym-g62-2	0.6	7.1	$(M(\mathcal{S}_2, 456))^2$
genus-sym-grafo5708-48	0.3	6.7	$M(\mathcal{S}_2, 228)$
gfd-schedulen180f7d50m30k18-16i	—	—	—
gfd-schedulen25f5d20m10k3i	—	—	—
gfd-schedulen55f2d50m30k3i	—	—	—
ghoulomb4-9-10i	—	—	—
glass4	0.3	0.6	\mathcal{S}_2
graph20-20-1rand	43.1	88.1	$M(\mathcal{S}_{37}, 1924)$
graph20-80-1rand	197.4	88.5	1 unknown
graph40-20-1rand	279.9	94.0	1 unknown
graph40-40-1rand	inf	95.0	1 unknown
graphdraw-grafo2	8.6	81.6	1 unknown
graphdraw-opmanager	1.2	30.0	1 unknown
gus-sch	0.3	1.4	$M(\mathcal{S}_2, 74)$
h80x6320	—	—	—
hawaiiv10-130	—	—	—
highschool1-aigo	114.5	88.5	$M(\mathcal{S}_2, 34), M(\mathcal{S}_8, 104)$, 1 unknown
ic97_tension	0.3	0.3	\mathcal{S}_2
icir97_tension	13.8	3.7	$(\mathcal{S}_2)^{46}$
in	0.6	0.1	$M(\mathcal{S}_2, 538), M(\mathcal{S}_2, 540)$
irish-electricity	inf	16.0	$(\mathcal{S}_2)^{475}, (M(\mathcal{S}_2, 958))^5, M(\mathcal{S}_2, 1148)$, 3 unknown
ivu59	—	—	—
k1mushroom	inf	44.1	$(\mathcal{S}_2)^{432}, (\mathcal{S}_3)^{576}, M(\mathcal{S}_2, 34), M(\mathcal{S}_2, 802)$, 1 unknown
k1mushroomi	—	—	—
kosova1	inf	11.1	$(M(\mathcal{S}_2, 54))^{103}, (M(\mathcal{S}_2, 62))^{457}, (M(\mathcal{S}_3, 81))^3, (M(\mathcal{S}_3, 96))^{111}, M(\mathcal{S}_4, 108), (M(\mathcal{S}_4, 128))^{80}, (M(\mathcal{S}_5, 160))^{23}, (M(\mathcal{S}_6, 192))^2, M(\mathcal{S}_7, 224), M(\mathcal{S}_9, 288)$, 4 unknown
kotttenpark09	—	—	—
l2p1i	—	—	—
l2p2i	—	—	—
lectsched-1	71.6	1.1	$(\mathcal{S}_2)^{92}, (\mathcal{S}_3)^{26}, (\mathcal{S}_4)^5, (\mathcal{S}_5)^4, \mathcal{S}_6, \mathcal{S}_9$
lectsched-2	42.3	1.1	$(\mathcal{S}_2)^{62}, (\mathcal{S}_3)^7, (\mathcal{S}_4)^6, (\mathcal{S}_5)^3, \mathcal{S}_7$
lectsched-3	75.7	1.2	$(\mathcal{S}_2)^{78}, (\mathcal{S}_3)^{32}, (\mathcal{S}_4)^5, (\mathcal{S}_5)^4, \mathcal{S}_6, \mathcal{S}_7, \mathcal{S}_9$
lectsched-4-obj	39.7	3.7	$(\mathcal{S}_2)^{37}, (\mathcal{S}_3)^5, (\mathcal{S}_4)^3, (\mathcal{S}_5)^2, (M(\mathcal{S}_2, 4))^{35}, (M(\mathcal{S}_3, 6))^4, (M(\mathcal{S}_4, 8))^2$

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name	$\log_{10} G $	#vars	factors
lectsched-5-obj	151.5	5.1	$(\mathcal{S}_2)^{101}, (\mathcal{S}_3)^{28}, (\mathcal{S}_4)^5, (\mathcal{S}_5)^4, \mathcal{S}_6, \mathcal{S}_7, \mathcal{S}_9, (M(\mathcal{S}_2, 4))^{148}, (M(\mathcal{S}_3, 6))^{11}, (M(\mathcal{S}_4, 8))^8, (M(\mathcal{S}_5, 10))^2, M(\mathcal{S}_7, 14)$
map06	12.2	0.0	$(\mathcal{S}_2)^{38}, \mathcal{S}_3$
map10	12.2	0.0	$(\mathcal{S}_2)^{38}, \mathcal{S}_3$
map14860-20	12.2	0.0	$(\mathcal{S}_2)^{38}, \mathcal{S}_3$
map16715-04	12.2	0.0	$(\mathcal{S}_2)^{38}, \mathcal{S}_3$
map18	12.2	0.0	$(\mathcal{S}_2)^{38}, \mathcal{S}_3$
mappingmesh3x3mpeg2i	—	—	—
mario-t-hard5i	—	—	—
mas74	0.6	2.6	$(\mathcal{S}_2)^2$
mas76	0.6	2.6	$(\mathcal{S}_2)^2$
maxgasflow	1.4	0.7	$M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 24), M(\mathcal{S}_3, 18)$
mcsched	4.5	5.2	$(M(\mathcal{S}_2, 6))^{15}$
milo-v12-6-r1-58-1	0.3	0.5	$M(\mathcal{S}_2, 22)$
milo-v12-6-r1-75-1	0.3	0.4	$M(\mathcal{S}_2, 22)$
milo-v12-6-r2-40-1	0.3	0.7	$M(\mathcal{S}_2, 18)$
misc07	0.8	83.1	$M(\mathcal{S}_3, 216)$
mitre	1.8	5.5	$M(\mathcal{S}_2, 42), M(\mathcal{S}_2, 72), M(\mathcal{S}_2, 84), M(\mathcal{S}_2, 114), M(\mathcal{S}_2, 120), M(\mathcal{S}_2, 154)$
mkc	76.8	38.9	$(\mathcal{S}_2)^{16}, (\mathcal{S}_3)^6, (\mathcal{S}_4)^3, (\mathcal{S}_5)^2, \mathcal{S}_7, \mathcal{S}_8, (M(\mathcal{S}_2, 4))^9, (M(\mathcal{S}_2, 6))^4, (M(\mathcal{S}_2, 10))^2, (M(\mathcal{S}_2, 12))^2, M(\mathcal{S}_2, 14), (M(\mathcal{S}_3, 6))^5, (M(\mathcal{S}_3, 9))^2, (M(\mathcal{S}_3, 12))^3, M(\mathcal{S}_3, 18), M(\mathcal{S}_4, 8), M(\mathcal{S}_4, 20), M(\mathcal{S}_6, 24), 5 \text{ unknown}$
mkc1	73.3	48.8	$(\mathcal{S}_2)^9, (\mathcal{S}_3)^5, \mathcal{S}_4, \mathcal{S}_8, (M(\mathcal{S}_2, 4))^{13}, (M(\mathcal{S}_2, 6))^4, M(\mathcal{S}_2, 8), M(\mathcal{S}_2, 10), (M(\mathcal{S}_2, 12))^2, M(\mathcal{S}_2, 18), (M(\mathcal{S}_2, 20))^2, (M(\mathcal{S}_2, 22))^5, M(\mathcal{S}_2, 24), (M(\mathcal{S}_2, 26))^3, (M(\mathcal{S}_2, 30))^2, (M(\mathcal{S}_2, 32))^6, (M(\mathcal{S}_2, 34))^2, M(\mathcal{S}_2, 36), (M(\mathcal{S}_2, 40))^2, (M(\mathcal{S}_2, 42))^2, (M(\mathcal{S}_2, 44))^2, M(\mathcal{S}_2, 46), (M(\mathcal{S}_2, 56))^2, (M(\mathcal{S}_3, 6))^5, M(\mathcal{S}_3, 9), M(\mathcal{S}_3, 12), M(\mathcal{S}_3, 21), M(\mathcal{S}_3, 33), M(\mathcal{S}_3, 36), M(\mathcal{S}_3, 48), M(\mathcal{S}_3, 60), M(\mathcal{S}_3, 66), M(\mathcal{S}_3, 69), M(\mathcal{S}_3, 84), (M(\mathcal{S}_4, 8))^2, M(\mathcal{S}_4, 40), M(\mathcal{S}_4, 44), M(\mathcal{S}_4, 84), M(\mathcal{S}_4, 116), (M(\mathcal{S}_5, 10))^2, M(\mathcal{S}_5, 105), M(\mathcal{S}_6, 36), M(\mathcal{S}_6, 48), M(\mathcal{S}_6, 120), M(\mathcal{S}_7, 14), 7 \text{ unknown}$
mod011	1.8	0.2	$(\mathcal{S}_2)^5, M(\mathcal{S}_2, 10)$
mrcpspj30-15-5i	—	—	—
mrcpspj30-17-10i	—	—	—
mrcpspj30-53-3i	—	—	—
msc98-ip	1.5	0.6	$M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 20), M(\mathcal{S}_2, 22), M(\mathcal{S}_2, 34), M(\mathcal{S}_2, 38)$
mspsphard01i	—	—	—
mspsphard03i	—	—	—
mushroom-best	4.0	26.4	$(M(\mathcal{S}_2, 6))^2, M(\mathcal{S}_2, 38), M(\mathcal{S}_2, 806), M(\mathcal{S}_2, 1158), M(\mathcal{S}_4, 12), 1 \text{ unknown}$
mzzv11	0.3	0.0	\mathcal{S}_2
n13-3	30.3	25.7	$(M(\mathcal{S}_2, 6))^4, (M(\mathcal{S}_2, 44))^2, (M(\mathcal{S}_3, 9))^2, M(\mathcal{S}_3, 66), M(\mathcal{S}_4, 88), M(\mathcal{S}_7, 14), M(\mathcal{S}_{10}, 220), M(\mathcal{S}_{17}, 374)$

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name	$\log_{10} G $	#vars	factors
n2seq36q	9.8	64.0	$M(\mathcal{S}_2, 72), (M(\mathcal{S}_2, 74))^4, (M(\mathcal{S}_2, 78))^2, (M(\mathcal{S}_2, 86))^4, M(\mathcal{S}_2, 96), (M(\mathcal{S}_2, 114))^4, (M(\mathcal{S}_2, 134))^2, M(\mathcal{S}_2, 166), (M(\mathcal{S}_2, 204))^2, M(\mathcal{S}_2, 320), M(\mathcal{S}_2, 510), M(\mathcal{S}_2, 514), M(\mathcal{S}_2, 822), M(\mathcal{S}_2, 1042), M(\mathcal{S}_2, 3900), M(\mathcal{S}_2, 4782), M(\mathcal{S}_4, 228)$
n3seq24	9.8	11.4	$M(\mathcal{S}_2, 48), (M(\mathcal{S}_2, 50))^4, (M(\mathcal{S}_2, 54))^2, (M(\mathcal{S}_2, 62))^4, M(\mathcal{S}_2, 72), (M(\mathcal{S}_2, 90))^4, (M(\mathcal{S}_2, 110))^2, M(\mathcal{S}_2, 142), (M(\mathcal{S}_2, 180))^2, M(\mathcal{S}_2, 296), (M(\mathcal{S}_2, 490))^2, M(\mathcal{S}_2, 798), M(\mathcal{S}_2, 1018), M(\mathcal{S}_2, 3878), M(\mathcal{S}_2, 4772), M(\mathcal{S}_4, 180)$
n5-3	0.9	6.7	$M(\mathcal{S}_2, 4), (M(\mathcal{S}_2, 84))^2$
n6-3	5.9	12.3	$(M(\mathcal{S}_2, 116))^3, M(\mathcal{S}_3, 174), M(\mathcal{S}_4, 12), M(\mathcal{S}_6, 348)$
n7-3	10.3	18.4	$(M(\mathcal{S}_2, 4))^2, (M(\mathcal{S}_2, 6))^2, (M(\mathcal{S}_2, 72))^7, M(\mathcal{S}_3, 9), (M(\mathcal{S}_3, 108))^2, M(\mathcal{S}_8, 288)$
n9-3	1.7	9.2	$(M(\mathcal{S}_2, 156))^3, M(\mathcal{S}_3, 234)$
nb10tb	0.6	17.0	$M(\mathcal{S}_2, 5932), M(\mathcal{S}_2, 6546)$
neos-1061020	inf	26.8	$(\mathcal{S}_2)^{10}, (\mathcal{S}_3)^{10}, (\mathcal{S}_4)^6, (\mathcal{S}_5)^{18}, (\mathcal{S}_6)^{11}, (M(\mathcal{S}_2, 4))^8, M(\mathcal{S}_2, 28), M(\mathcal{S}_2, 36), M(\mathcal{S}_2, 38), M(\mathcal{S}_2, 42), (M(\mathcal{S}_2, 44))^3, M(\mathcal{S}_2, 48), (M(\mathcal{S}_3, 6))^2, (M(\mathcal{S}_4, 8))^{26}, (M(\mathcal{S}_5, 10))^{30}, (M(\mathcal{S}_6, 12))^9, M(\mathcal{S}_9, 18), (M(\mathcal{S}_{12}, 24))^9, M(\mathcal{S}_{14}, 28), M(\mathcal{S}_{17}, 34), (M(\mathcal{S}_{20}, 40))^{56}$
neos-1067731	4.5	3.3	$(M(\mathcal{S}_2, 8))^5, M(\mathcal{S}_2, 10), (M(\mathcal{S}_2, 12))^3, (M(\mathcal{S}_2, 30))^2, (M(\mathcal{S}_2, 36))^4$
neos-1171448	87.3	100.0	$M(\mathcal{S}_{63}, 4914)$
neos-1171737	32.4	100.0	$M(\mathcal{S}_{30}, 2340)$
neos-1223462	152.0	5.8	$(\mathcal{S}_5)^{14}, (\mathcal{S}_{10})^{15}, (\mathcal{S}_{15})^2, M(\mathcal{S}_2, 70)$
neos-1324574	5.6	99.3	1 unknown
neos-1337307	3.7	87.5	$M(\mathcal{S}_7, 2485)$
neos-1354092	10.7	99.6	1 unknown
neos-1367061	inf	95.6	1 unknown
neos-1396125	0.8	78.0	$M(\mathcal{S}_3, 906)$
neos-1420546	5.6	52.4	$M(\mathcal{S}_9, 13662)$
neos-1420790	2.9	51.3	$M(\mathcal{S}_6, 2526)$
neos-1430701	11.4	98.1	$M(\mathcal{S}_6, 18), (M(\mathcal{S}_6, 48))^2, M(\mathcal{S}_6, 192)$
neos-1442119	43.8	98.1	$M(\mathcal{S}_{14}, 42), (M(\mathcal{S}_{14}, 112))^2, M(\mathcal{S}_{14}, 448)$
neos-1445532	12.4	7.4	$(M(\mathcal{S}_2, 6))^7, (M(\mathcal{S}_2, 8))^2, (M(\mathcal{S}_2, 10))^4, (M(\mathcal{S}_2, 12))^4, (M(\mathcal{S}_2, 14))^3, (M(\mathcal{S}_2, 16))^2, M(\mathcal{S}_2, 24), M(\mathcal{S}_2, 26), M(\mathcal{S}_2, 28), M(\mathcal{S}_2, 34), M(\mathcal{S}_2, 36), M(\mathcal{S}_2, 40), M(\mathcal{S}_2, 44), M(\mathcal{S}_2, 62), M(\mathcal{S}_2, 64), M(\mathcal{S}_2, 70), M(\mathcal{S}_2, 88), M(\mathcal{S}_2, 98), M(\mathcal{S}_2, 102), M(\mathcal{S}_2, 108), M(\mathcal{S}_3, 9), M(\mathcal{S}_3, 18)$
neos-1445738	1.7	0.3	$(M(\mathcal{S}_2, 10))^2, M(\mathcal{S}_2, 24), M(\mathcal{S}_3, 9)$
neos-1456979	2.1	99.8	$M(\mathcal{S}_5, 4595)$
neos-1516309	inf	93.3	$(M(\mathcal{S}_{50}, 600))^2, (M(\mathcal{S}_{50}, 750))^4$
neos-1593097	70.2	41.4	1 unknown
neos-1599274	64.5	93.3	$M(\mathcal{S}_{50}, 4200)$

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name	$\log_{10} G $	#vars	factors
neos-2075418-temuka	9.9	34.0	$(M(\mathcal{S}_2, 1664))^{19}, (M(\mathcal{S}_4, 3328))^3$
neos-2669500-cust	190.3	85.5	1 unknown
neos-2746589-doon	163.0	83.5	$M(\mathcal{S}_4, 2288), M(\mathcal{S}_5, 2860), M(\mathcal{S}_9, 5148), M(\mathcal{S}_{10}, 6920)$, 1 unknown
neos-2974461-ibar	0.3	0.6	$M(\mathcal{S}_2, 1276)$
neos-2978193-inde	2.2	87.5	$M(\mathcal{S}_3, 7800), M(\mathcal{S}_4, 10400)$
neos-2978205-isar	2.2	87.5	$M(\mathcal{S}_3, 39000), M(\mathcal{S}_4, 52000)$
neos-2991472-kalu	7.1	96.7	1 unknown
neos-3004026-krka	90.9	49.6	1 unknown
neos-3009394-lami	3.9	49.0	1 unknown
neos-3045796-mogo	46.4	60.2	1 unknown
neos-3048764-nadi	7.0	7.0	$(M(\mathcal{S}_2, 60))^6, (M(\mathcal{S}_3, 90))^4, M(\mathcal{S}_5, 150)$
neos-3065804-namu	18.0	1.1	$(\mathcal{S}_2)^3, (\mathcal{S}_3)^3, (\mathcal{S}_4)^2, (\mathcal{S}_5)^3, (\mathcal{S}_6)^2$
neos-3068746-nene	0.3	4.3	$M(\mathcal{S}_2, 210)$
neos-3075395-nile	22.3	51.9	$(M(\mathcal{S}_2, 28))^{13}$, 6 unknown
neos-3083784-nive	141.9	20.7	$M(\mathcal{S}_4 \wr \mathcal{S}_9, 720)$, 1 unknown
neos-3116779-oban	—	—	—
neos-3118745-obra	3.7	17.7	$(M(\mathcal{S}_2, 20))^7, (M(\mathcal{S}_3, 30))^2$
neos-3148108-pahi	—	—	—
neos-3208254-reiu	—	—	—
neos-3209519-ruhr	25.2	84.4	$M(\mathcal{S}_{25}, 7325)$
neos-3211096-shag	inf	94.2	1 unknown
neos-3214367-sovi	5.4	0.8	$(\mathcal{S}_2)^{18}$
neos-3229051-yass	—	—	—
neos-3230376-yser	—	—	—
neos-3230511-yuna	—	—	—
neos-3230516-zala	—	—	—
neos-3237086-abava	9.8	98.0	1 unknown
neos-3283608-agout	—	—	—
neos-3322547-alsiek	—	—	—
neos-3355120-tarago	0.3	5.1	$M(\mathcal{S}_2, 400)$
neos-3355323-arnon	inf	98.8	1 unknown
neos-3372571-onahau	0.6	5.3	$(M(\mathcal{S}_2, 346))^2$
neos-3381206-awhea	inf	100.0	$M(\mathcal{S}_{475}, 2375)$
neos-3402454-bohle	19.9	59.1	$(M(\mathcal{S}_2, 26))^{66}$
neos-3421095-cinca	0.9	0.7	$(\mathcal{S}_2)^3$
neos-3426085-ticino	inf	100.0	$M(\mathcal{S}_{293}, 4688)$
neos-3426132-dieze	inf	100.0	$M(\mathcal{S}_{550}, 11550)$
neos-3437289-erdre	—	—	—
neos-3530903-gauja	inf	100.0	$M(\mathcal{S}_{210}, 2310)$
neos-3530905-gaula	inf	100.0	$M(\mathcal{S}_{190}, 2090)$
neos-3555904-turama	81.0	1.4	$(\mathcal{S}_2)^{269}$
neos-3572885-glina	0.3	0.0	$M(\mathcal{S}_2, 8)$
neos-3581454-haast	6.6	80.4	$M(\mathcal{S}_{10}, 6520)$
neos-3594536-henty	0.3	0.0	$M(\mathcal{S}_2, 6)$

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name	$\log_{10} G $	#vars	factors
neos-3603137-hoteo	124.5	97.3	1 unknown
neos-3615091-sutlej	5.6	88.5	$M(\mathcal{S}_9, 181548)$
neos-3627168-kasai	1.1	94.8	1 unknown
neos-3634244-kauru	25.2	100.0	$M(\mathcal{S}_{25}, 4375)$
neos-3636886-kereu	inf	98.5	$(M(\mathcal{S}_{500}, 6500))^2$
neos-3654993-kolva	—	—	—
neos-3656078-kumeu	1.4	18.6	$M(\mathcal{S}_2, 754), M(\mathcal{S}_2, 876), M(\mathcal{S}_3, 1131)$
neos-3672928-linge	—	—	—
neos-3682128-sandon	0.8	38.6	$M(\mathcal{S}_3, 3042)$
neos-3695882-vesdre	2.1	100.0	$M(\mathcal{S}_5, 6135)$
neos-3696678-lyvia	88.9	10.4	$(\mathcal{S}_2)^2, \mathcal{S}_3, (\mathcal{S}_4)^2, \mathcal{S}_{10}, M(\mathcal{S}_2, 6), M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 14), M(\mathcal{S}_3, 18), M(\mathcal{S}_3, 21), M(\mathcal{S}_3, 27), M(\mathcal{S}_4, 24), M(\mathcal{S}_4, 28), M(\mathcal{S}_5, 30), M(\mathcal{S}_6, 36), M(\mathcal{S}_7, 42), M(\mathcal{S}_8, 56), M(\mathcal{S}_9, 63), M(\mathcal{S}_{10}, 70), M(\mathcal{S}_{20}, 100), M(\mathcal{S}_2 \times \mathcal{S}_2, 18), 2 \text{ unknown}$
neos-3699044-maipo	—	—	—
neos-3699377-maori	24.8	71.4	$(M(\mathcal{S}_4, 684))^{18}$
neos-3703351-marne	19.3	62.2	$(M(\mathcal{S}_4, 392))^{14}$
neos-3709489-menik	—	—	—
neos-3734794-moppy	7.6	86.4	$M(\mathcal{S}_{11}, 3817)$
neos-3740487-motru	—	—	—
neos-3754224-navua	inf	76.3	$(M(\mathcal{S}_2, 98))^{1170}$
neos-3755335-nizao	4.3	68.3	1 unknown
neos-3759587-noosa	2.9	47.8	1 unknown
neos-3761878-oglio	19.3	52.6	$(M(\mathcal{S}_4, 244))^{14}$
neos-3762025-ognon	13.8	52.2	$(M(\mathcal{S}_4, 244))^{10}$
neos-3988577-wolgan	188.0	100.0	$M(\mathcal{S}_{35}, 6965), M(\mathcal{S}_{95}, 18905)$
neos-4165869-wannon	2.8	20.5	1 unknown
neos-4232544-orira	1.4	4.4	$M(\mathcal{S}_4, 3840)$
neos-4260495-otere	inf	33.0	$M(\mathcal{S}_{1250}, 28750), M(\mathcal{S}_{1278}, 29394)$
neos-4290317-perth	36.8	0.1	$(\mathcal{S}_{20})^2$
neos-4292145-piako	0.3	0.0	\mathcal{S}_2
neos-4295773-pissa	7.8	0.1	$(\mathcal{S}_2)^{26}$
neos-4306827-ravan	inf	23.8	$(\mathcal{S}_2)^{16}, M(\mathcal{S}_{18}, 3942), M(\mathcal{S}_{1262}, 7572), M(\mathcal{S}_{1278}, 26838), 11 \text{ unknown}$
neos-4321076-ruwer	18.4	0.0	$(\mathcal{S}_2)^{61}$
neos-4322846-ryton	2.1	96.0	$M(\mathcal{S}_5, 104390)$
neos-4335396-skien	0.6	0.4	$(\mathcal{S}_2)^2$
neos-4335793-snake	0.3	5.0	$M(\mathcal{S}_2, 1534)$
neos-4359986-taipa	2.1	99.6	$M(\mathcal{S}_5, 25025)$
neos-4382714-ruvuma	17.9	100.0	1 unknown
neos-4391920-timok	2.1	99.8	$M(\mathcal{S}_5, 93670)$
neos-4409277-trave	2.3	88.9	1 unknown
neos-4477313-unzha	—	—	—
neos-4532248-waihi	1.4	95.5	$M(\mathcal{S}_4, 82940)$
neos-4533806-waima	inf	49.8	1 unknown

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name	$\log_{10} G $	#vars	factors
neos-4555749-wards	0.8	28.8	$M(\mathcal{S}_3, 25650)$
neos-4562542-watut	0.8	48.3	$M(\mathcal{S}_3, 65016)$
neos-4647027-thurso	—	—	—
neos-4647030-tutaki	—	—	—
neos-4647032-veleka	—	—	—
neos-4703857-ahuroa	inf	6.1	$(M(\mathcal{S}_2, 8))^{1324}, (M(\mathcal{S}_3, 12))^{336}, (M(\mathcal{S}_4, 16))^{15}, (M(\mathcal{S}_5, 20))^{30}, (M(\mathcal{S}_6, 24))^{30}$
neos-4736745-arroux	0.6	3.1	$(M(\mathcal{S}_2, 96))^2$
neos-4738912-atrato	0.6	3.1	$(M(\mathcal{S}_2, 96))^2$
neos-4754521-awarau	0.6	1.9	$M(\mathcal{S}_2, 118), M(\mathcal{S}_2, 686)$
neos-4797081-pakoka	8.7	92.1	1 unknown
neos-4805882-barwon	inf	28.3	$(\mathcal{S}_2)^{1204}, (\mathcal{S}_3)^{196}, (\mathcal{S}_4)^{164}, (\mathcal{S}_6)^{50}, (\mathcal{S}_8)^{27}, M(\mathcal{S}_{58}, 1044), M(\mathcal{S}_{60}, 1080)$
neos-4954274-beardy	2.2	0.1	$(\mathcal{S}_2)^2, (\mathcal{S}_3)^2$
neos-4954340-beaury	—	—	—
neos-4954357-bednja	—	—	—
neos-4960896-besbre	—	—	—
neos-4966126-blavet	—	—	—
neos-498623	26.9	70.5	$(\mathcal{S}_3)^{16}, (M(\mathcal{S}_2, 130))^4, 1 \text{ unknown}$
neos-503737	17.3	100.0	1 unknown
neos-5041756-cobark	—	—	—
neos-5041822-cockle	159.8	12.1	$M(\mathcal{S}_2, 4334), M(\mathcal{S}_2, 10580), 1 \text{ unknown}$
neos-5044663-wairoa	38.0	0.3	$(\mathcal{S}_2)^{81}, (\mathcal{S}_3)^{12}, \mathcal{S}_4, \mathcal{S}_6$
neos-5045105-creuse	28.4	77.7	$(\mathcal{S}_2)^{20}, (\mathcal{S}_3)^{10}, (\mathcal{S}_4)^{10}, M(\mathcal{S}_3, 2880)$
neos-5052403-cygnet	—	—	—
neos-5075914-elvire	29.5	3.6	$(\mathcal{S}_2)^{69}, (\mathcal{S}_3)^6, \mathcal{S}_4, \mathcal{S}_5, (M(\mathcal{S}_2, 8))^2$
neos-5076235-embley	29.5	7.7	$(\mathcal{S}_2)^{49}, (M(\mathcal{S}_2, 76))^{49}$
neos-5078479-escaut	4.4	1.1	$(\mathcal{S}_2)^{10}, \mathcal{S}_3, (M(\mathcal{S}_2, 8))^2$
neos-5079731-flyers	29.5	7.7	$(\mathcal{S}_2)^{49}, (M(\mathcal{S}_2, 76))^{49}$
neos-5081619-ganges	—	—	—
neos-5083528-gimone	19.3	7.8	$M(\mathcal{S}_4, 40), M(\mathcal{S}_4, 88), (M(\mathcal{S}_4, 160))^2, M(\mathcal{S}_4, 224), M(\mathcal{S}_4, 260), M(\mathcal{S}_4, 272), M(\mathcal{S}_4, 280), M(\mathcal{S}_4, 372), M(\mathcal{S}_4, 388), M(\mathcal{S}_4, 452), M(\mathcal{S}_4, 560), M(\mathcal{S}_4, 656), M(\mathcal{S}_4, 808)$
neos-5093327-huahum	9.6	0.2	$(\mathcal{S}_2)^{32}$
neos-5100895-inster	16.9	8.6	$(\mathcal{S}_2)^{28}, (M(\mathcal{S}_2, 88))^{28}$
neos-5102383-irwell	29.5	8.6	$(\mathcal{S}_2)^{49}, (M(\mathcal{S}_2, 88))^{49}$
neos-5125849-lopori	12.6	96.0	$(M(\mathcal{S}_2, 60))^2, (M(\mathcal{S}_2, 120))^6, 1 \text{ unknown}$
neos-5149806-wieprz	0.8	73.3	1 unknown
neos-5151569-mologa	inf	15.1	$(M(\mathcal{S}_2, 4))^{771}, (M(\mathcal{S}_2, 6))^{272}, (M(\mathcal{S}_2, 8))^{248}, (M(\mathcal{S}_2, 10))^{135}, (M(\mathcal{S}_2, 12))^{11}, (M(\mathcal{S}_3, 6))^{178}, (M(\mathcal{S}_4, 8))^{165}, (M(\mathcal{S}_5, 10))^{13}, (M(\mathcal{S}_6, 12))^{178}, (M(\mathcal{S}_9, 18))^{13}, (M(\mathcal{S}_{10}, 20))^{165}$

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name	$\log_{10} G $	#vars	factors
neos-5157194-moruya	—	—	—
neos-5178119-nalagi	9.8	85.5	$(M(\mathcal{S}_2, 6))^{30}, M(\mathcal{S}_3, 3384)$
neos-5182409-nasivi	1.4	91.4	$M(\mathcal{S}_4, 1832)$
neos-5189128-totara	3.1	98.9	$(M(\mathcal{S}_3, 8910))^4$
neos-5192052-neckar	0.9	18.9	$M(\mathcal{S}_2, 10), (M(\mathcal{S}_2, 12))^2$
neos-525149	31.8	99.1	$(\mathcal{S}_2)^3, 1 \text{ unknown}$
neos-5260764-orauea	4.2	94.6	$(M(\mathcal{S}_5, 6120))^2$
neos-5266653-tugela	1.6	94.6	$(M(\mathcal{S}_3, 11031))^2$
neos-555001	57.0	71.4	$\mathcal{S}_5, \mathcal{S}_{12}, M(\mathcal{S}_{12}, 360), M(\mathcal{S}_{12} \wr \mathcal{S}_3, 108), 1 \text{ unknown}$
neos-555343	37.7	75.6	$\mathcal{S}_5, M(\mathcal{S}_{10}, 300), M(\mathcal{S}_{10} \wr \mathcal{S}_3, 90), 1 \text{ unknown}$
neos-555424	89.2	92.7	2 unknown
neos-555884	84.8	75.4	$M(\mathcal{S}_3, 144), M(\mathcal{S}_7, 336), M(\mathcal{S}_9, 432), 2 \text{ unknown}$
neos-578379	0.6	2.1	$M(\mathcal{S}_2, 160), M(\mathcal{S}_2, 196)$
neos-585192	0.3	52.7	$M(\mathcal{S}_2, 1368)$
neos-585467	0.3	52.5	$M(\mathcal{S}_2, 1110)$
neos-619167	0.3	99.8	$M(\mathcal{S}_2, 3444)$
neos-631517	0.6	2.2	$(M(\mathcal{S}_2, 12))^2$
neos-631710	inf	99.7	$M(\mathcal{S}_{11}, 6094), M(\mathcal{S}_{15}, 8325), M(\mathcal{S}_{15}, 8340), M(\mathcal{S}_{16}, 8864), M(\mathcal{S}_{18}, 9990), M(\mathcal{S}_{19}, 10564), M(\mathcal{S}_{24}, 13344), M(\mathcal{S}_{28}, 15540), M(\mathcal{S}_{33}, 18282), M(\mathcal{S}_{39}, 21645), M(\mathcal{S}_{40}, 22160), M(\mathcal{S}_{42}, 23352)$
neos-691058	3.0	53.9	$(M(\mathcal{S}_2, 36))^9, M(\mathcal{S}_2, 1296)$
neos-738098	21.0	93.5	1 unknown
neos-780889	inf	64.2	$M(\mathcal{S}_4, 1588), M(\mathcal{S}_{24}, 9528), M(\mathcal{S}_{26}, 9438), M(\mathcal{S}_{42}, 16674), M(\mathcal{S}_{44}, 15972), M(\mathcal{S}_{70}, 17780), 2 \text{ unknown}$
neos-787933	142.5	0.3	$(\mathcal{S}_2)^{224}, (\mathcal{S}_3)^{42}, (\mathcal{S}_4)^{13}, (\mathcal{S}_5)^5, (\mathcal{S}_6)^2, \mathcal{S}_7, \mathcal{S}_8$
neos-824661	306.9	65.9	$M(\mathcal{S}_{170}, 29920)$
neos-826224	306.9	97.2	$M(\mathcal{S}_{170}, 40630)$
neos-826650	35.7	85.1	1 unknown
neos-827015	24.7	96.7	$M(\mathcal{S}_2, 70), M(\mathcal{S}_2, 206), (M(\mathcal{S}_2, 298))^2, M(\mathcal{S}_2, 644), (M(\mathcal{S}_2, 646))^2, (M(\mathcal{S}_2, 648))^2, M(\mathcal{S}_2, 692), M(\mathcal{S}_2, 750), M(\mathcal{S}_2, 752), M(\mathcal{S}_2, 796), M(\mathcal{S}_2, 802), M(\mathcal{S}_2, 804), (M(\mathcal{S}_2, 858))^2, M(\mathcal{S}_2, 860), (M(\mathcal{S}_2, 862))^5, (M(\mathcal{S}_2, 864))^2, (M(\mathcal{S}_2, 866))^2, M(\mathcal{S}_2, 870), M(\mathcal{S}_2, 912), (M(\mathcal{S}_2, 918))^2, M(\mathcal{S}_2, 922), M(\mathcal{S}_2, 924), (M(\mathcal{S}_2, 926))^2, M(\mathcal{S}_2, 980), (M(\mathcal{S}_2, 982))^3, (M(\mathcal{S}_2, 984))^3, M(\mathcal{S}_2, 988), M(\mathcal{S}_2, 990), M(\mathcal{S}_2, 992), M(\mathcal{S}_2, 1028), M(\mathcal{S}_2, 1036), M(\mathcal{S}_2, 1042), (M(\mathcal{S}_2, 1046))^4, (M(\mathcal{S}_2, 1048))^3, (M(\mathcal{S}_2, 1050))^3, (M(\mathcal{S}_2, 1052))^3, M(\mathcal{S}_2, 1054), M(\mathcal{S}_2, 1104), M(\mathcal{S}_2, 1108), (M(\mathcal{S}_2, 1110))^2, (M(\mathcal{S}_2, 1114))^3, (M(\mathcal{S}_2, 1116))^2, (M(\mathcal{S}_2, 1118))^2, M(\mathcal{S}_2, 1120), M(\mathcal{S}_2, 1122), M(\mathcal{S}_2, 1176), (M(\mathcal{S}_2, 1178))^2, M(\mathcal{S}_2, 1180), M(\mathcal{S}_2, 1182), M(\mathcal{S}_2, 1184), M(\mathcal{S}_2, 1186)$

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name	$\log_{10} G $	#vars	factors
neos-827175	203.0	97.2	$M(\mathcal{S}_{122}, 31598)$
neos-831188	0.3	99.2	$M(\mathcal{S}_2, 4576)$
neos-848589	18.4	11.3	1 unknown
neos-859770	26.9	32.9	$(\mathcal{S}_2)^{14}$, 1 unknown
neos-872648	43.3	6.9	$(M(\mathcal{S}_2, 12))^2, (M(\mathcal{S}_2, 16))^6, (M(\mathcal{S}_2, 20))^5,$ $(M(\mathcal{S}_2, 24))^2, M(\mathcal{S}_2, 28), (M(\mathcal{S}_2, 36))^3, M(\mathcal{S}_2, 40),$ $(M(\mathcal{S}_2, 44))^4, M(\mathcal{S}_2, 48), M(\mathcal{S}_2, 52), (M(\mathcal{S}_2, 60))^2,$ $(M(\mathcal{S}_2, 68))^2, M(\mathcal{S}_2, 72), (M(\mathcal{S}_2, 76))^2, M(\mathcal{S}_2, 80),$ $M(\mathcal{S}_2, 84), M(\mathcal{S}_2, 92), M(\mathcal{S}_2, 100), (M(\mathcal{S}_2, 108))^2,$ $M(\mathcal{S}_2, 112), M(\mathcal{S}_2, 116), (M(\mathcal{S}_2, 124))^2, M(\mathcal{S}_2, 132),$ $M(\mathcal{S}_2, 148), M(\mathcal{S}_2, 180), M(\mathcal{S}_2, 244), M(\mathcal{S}_2, 252),$ $M(\mathcal{S}_2, 340), (M(\mathcal{S}_3, 24))^4, M(\mathcal{S}_3, 36), M(\mathcal{S}_3, 84),$ $M(\mathcal{S}_4, 64), M(\mathcal{S}_4, 240), M(\mathcal{S}_5, 80), M(\mathcal{S}_6, 48),$ 9 unknown
neos-873061	43.3	6.9	$(M(\mathcal{S}_2, 12))^2, (M(\mathcal{S}_2, 16))^6, (M(\mathcal{S}_2, 20))^5,$ $(M(\mathcal{S}_2, 24))^2, M(\mathcal{S}_2, 28), (M(\mathcal{S}_2, 36))^3, M(\mathcal{S}_2, 40),$ $(M(\mathcal{S}_2, 44))^4, M(\mathcal{S}_2, 48), M(\mathcal{S}_2, 52), (M(\mathcal{S}_2, 60))^2,$ $(M(\mathcal{S}_2, 68))^2, M(\mathcal{S}_2, 72), (M(\mathcal{S}_2, 76))^2, M(\mathcal{S}_2, 80),$ $M(\mathcal{S}_2, 84), M(\mathcal{S}_2, 92), M(\mathcal{S}_2, 100), (M(\mathcal{S}_2, 108))^2,$ $M(\mathcal{S}_2, 112), M(\mathcal{S}_2, 116), (M(\mathcal{S}_2, 124))^2, M(\mathcal{S}_2, 132),$ $M(\mathcal{S}_2, 148), M(\mathcal{S}_2, 180), M(\mathcal{S}_2, 244), M(\mathcal{S}_2, 252),$ $M(\mathcal{S}_2, 340), (M(\mathcal{S}_3, 24))^4, M(\mathcal{S}_3, 36), M(\mathcal{S}_3, 84),$ $M(\mathcal{S}_4, 64), M(\mathcal{S}_4, 240), M(\mathcal{S}_5, 80), M(\mathcal{S}_6, 48),$ 9 unknown
neos-885086	56.1	100.0	$M(\mathcal{S}_{45}, 4860)$
neos-885524	inf	28.8	$(\mathcal{S}_2)^{26}$, 1 unknown
neos-911970	7.5	100.0	$(M(\mathcal{S}_3, 111))^6, M(\mathcal{S}_6, 222)$
neos-913984	inf	100.0	1 unknown
neos-932721	2.1	25.5	$M(\mathcal{S}_5, 5670)$
neos-933562	4.5	39.0	1 unknown
neos-933638	10.9	23.3	$M(\mathcal{S}_2, 270)$, 4 unknown
neos-933966	11.8	24.7	$M(\mathcal{S}_2, 260), M(\mathcal{S}_3, 390)$, 3 unknown
neos-935234	11.5	64.4	$(\mathcal{S}_2)^4, M(\mathcal{S}_2, 236), M(\mathcal{S}_2, 262), M(\mathcal{S}_2, 270)$, 5 unknown
neos-935769	9.2	60.3	$M(\mathcal{S}_3, 354), M(\mathcal{S}_3, 360), M(\mathcal{S}_3, 387), M(\mathcal{S}_3, 405),$ 5 unknown
neos-941313	32.4	69.3	$M(\mathcal{S}_{30}, 116400)$
neos-948346	inf	99.9	$(\mathcal{S}_2)^5$, 1 unknown
neos-950242	23.8	74.2	1 unknown
neos-953928	142.9	96.5	1 unknown
neos-954925	inf	76.9	1 unknown
neos-956971	inf	99.8	1 unknown
neos-957143	inf	99.8	1 unknown
neos-957323	303.3	99.6	$M(\mathcal{S}_4, 684), M(\mathcal{S}_8, 1328), M(\mathcal{S}_{22}, 6028),$ $M(\mathcal{S}_{25}, 6425), M(\mathcal{S}_{40}, 10960), M(\mathcal{S}_{42}, 7182),$ $M(\mathcal{S}_{97}, 24929)$
neos-960392	inf	99.8	1 unknown
neos-983171	6.8	59.6	$M(\mathcal{S}_2, 190), M(\mathcal{S}_2, 208), M(\mathcal{S}_2, 224), M(\mathcal{S}_2, 244),$ $(M(\mathcal{S}_2, 266))^2, M(\mathcal{S}_2, 272), M(\mathcal{S}_2, 292)$, 4 unknown

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name	$\log_{10} G $	#vars	factors
neos18	28.0	2.4	$(\mathcal{S}_2)^3, (\mathcal{S}_3)^8, \mathcal{S}_4, (\mathcal{S}_5)^3, \mathcal{S}_7, (\mathcal{S}_8)^2, M(\mathcal{S}_2, 8)$
neos22	14.4	83.0	$M(\mathcal{S}_3, 360), M(\mathcal{S}_5, 600), M(\mathcal{S}_6, 576), M(\mathcal{S}_{12}, 1152)$
neos5	0.6	76.2	$M(\mathcal{S}_2 \times \mathcal{S}_2, 48)$
neos6	6.6	92.4	$M(\mathcal{S}_{10}, 8120)$
net12	1.2	1.1	$M(\mathcal{S}_2, 36), (M(\mathcal{S}_2, 38))^2, M(\mathcal{S}_2, 40)$
nh97_tension	9.4	2.3	$(\mathcal{S}_2)^4, (\mathcal{S}_3)^7, (\mathcal{S}_4)^2$
nj1	8.7	100.0	$M(\mathcal{S}_{12}, 78084)$
nj2	8.7	100.0	$M(\mathcal{S}_{12}, 85200)$
no-ip-64999	5.9	100.0	1 unknown
no-ip-65059	5.9	100.0	1 unknown
noswot	1.4	75.0	$M(\mathcal{S}_4, 96)$
npmv07	inf	0.8	$(\mathcal{S}_2)^{532}, (\mathcal{S}_3)^{56}, (\mathcal{S}_4)^{56}, (\mathcal{S}_5)^{56}$
ns1111636	47.9	21.3	$M(\mathcal{S}_{40}, 76880)$
ns1116954	11.7	94.2	1 unknown
ns1208400	2.8	88.0	1 unknown
ns1430538	12.1	100.0	$M(\mathcal{S}_{15}, 33600)$
ns1456591	1.1	20.1	$M(\mathcal{S}_2, 672), M(\mathcal{S}_3, 1014)$
ns1690781	202.6	5.4	$(\mathcal{S}_2)^{14}, (\mathcal{S}_9)^{16}, (\mathcal{S}_{14})^{10}$
ns1760995	—	—	—
ns1849932	40.1	57.1	1 unknown
ns1856153	0.3	78.9	$M(\mathcal{S}_2, 9464)$
ns1905797	1.4	98.7	$M(\mathcal{S}_4, 17948)$
ns1952667	4.8	0.2	$(\mathcal{S}_2)^{16}$
ns2122698	inf	25.1	$(M(\mathcal{S}_2, 8))^{13}, (M(\mathcal{S}_3, 12))^2, M(\mathcal{S}_4, 16), M(\mathcal{S}_6, 24), 2$ unknown
ns4-pr6	2.8	11.7	$(M(\mathcal{S}_2, 116))^4, (M(\mathcal{S}_3, 174))^2$
nsr8k	65.7	1.1	$(\mathcal{S}_2)^{200}, (\mathcal{S}_3)^7$
nsrand-ipx	0.3	0.3	$M(\mathcal{S}_2, 20)$
nu120-pr12	0.3	2.0	$M(\mathcal{S}_2, 116)$
nu120-pr9	0.6	4.2	$(M(\mathcal{S}_2, 156))^2$
nu25-pr12	0.3	2.0	$M(\mathcal{S}_2, 116)$
nu4-pr9	0.6	4.2	$(M(\mathcal{S}_2, 156))^2$
nucorsav	0.8	7.4	1 unknown
nursesched-sprint02	0.3	0.2	$M(\mathcal{S}_2, 20)$
oocsp-racks030e6cci	—	—	—
oocsp-racks030f7cci	—	—	—
p0201	0.6	88.6	1 unknown
p2m2p1m1p0n100	32.1	92.0	$(\mathcal{S}_2)^6, (\mathcal{S}_3)^8, (\mathcal{S}_4)^4, (\mathcal{S}_5)^3, (\mathcal{S}_6)^3, \mathcal{S}_7$
pb-gfrd-pnc	inf	38.2	$(\mathcal{S}_2)^{21}, (\mathcal{S}_3)^{19}, (\mathcal{S}_4)^{21}, (\mathcal{S}_8)^2, (\mathcal{S}_{12})^{188}, (\mathcal{S}_{13})^{468}, (\mathcal{S}_{14})^{152}$
pb-grow22	inf	32.7	$(\mathcal{S}_4)^{22}, (\mathcal{S}_5)^{23}, (\mathcal{S}_6)^{131}, (\mathcal{S}_7)^{198}, (\mathcal{S}_8)^{154}, (\mathcal{S}_9)^{67}, (\mathcal{S}_{10})^{88}, (\mathcal{S}_{11})^{109}, (\mathcal{S}_{12})^{67}, (\mathcal{S}_{13})^{87}$
physiciansched3-3	inf	1.2	$(\mathcal{S}_2)^{79}, (\mathcal{S}_3)^{54}, (\mathcal{S}_4)^7, (\mathcal{S}_5)^4, (\mathcal{S}_6)^7, (\mathcal{S}_7)^{11}, (\mathcal{S}_8)^6, (\mathcal{S}_9)^2, \mathcal{S}_{11}, (\mathcal{S}_{15})^2, \mathcal{S}_{18}, \mathcal{S}_{20}, \mathcal{S}_{26}, \mathcal{S}_{27}, \mathcal{S}_{39}, \mathcal{S}_{69}, \mathcal{S}_{100}, M(\mathcal{S}_2, 12), M(\mathcal{S}_6, 24), \mathcal{S}_2 \wr \mathcal{S}_2$

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name		$\log_{10} G $	#vars	factors
physiciansched3-4		inf	1.8	$(\mathcal{S}_2)^{177}, (\mathcal{S}_3)^{60}, (\mathcal{S}_4)^{14}, (\mathcal{S}_5)^7, (\mathcal{S}_6)^{24}, (\mathcal{S}_7)^6, (\mathcal{S}_8)^{10}, \mathcal{S}_9, \mathcal{S}_{10}, (\mathcal{S}_{11})^3, \mathcal{S}_{13}, \mathcal{S}_{19}, \mathcal{S}_{24}, \mathcal{S}_{26}, \mathcal{S}_{39}, \mathcal{S}_{52}, \mathcal{S}_{126}, (M(\mathcal{S}_2, 8))^4, 1 \text{ unknown}$
physiciansched5-3		4.0	0.2	$M(\mathcal{S}_2, 6), (M(\mathcal{S}_4, 8))^2, 1 \text{ unknown}$
physiciansched6-1		119.3	0.6	$(\mathcal{S}_2)^{349}, (\mathcal{S}_3)^{13}, (\mathcal{S}_4)^3$
physiciansched6-2		10.1	0.0	$(\mathcal{S}_3)^{13}$
pigeon-08		2.9	68.0	1 unknown
pigeon-10		4.6	73.5	1 unknown
pigeon-13		7.6	78.8	1 unknown
pigeon-16		10.9	82.3	1 unknown
pigeon-20		15.8	85.4	1 unknown
pizza27i		—	—	—
pizza78i		—	—	—
ponderthis0517-inf		0.3	98.7	$M(\mathcal{S}_2, 962)$
proteindesign121hz512p19		—	—	—
pw-myciel4		1.0	83.1	1 unknown
qiu		1.7	100.0	1 unknown
queens-30		0.9	100.0	1 unknown
radiationm40-10-02		0.6	0.0	$\mathcal{S}_2, M(\mathcal{S}_2, 20)$
ramos3		9.1	100.0	1 unknown
rfdss-4-days		2.9	2.5	$\mathcal{S}_2, M(\mathcal{S}_2, 6), M(\mathcal{S}_2, 28), M(\mathcal{S}_2, 27488), M(\mathcal{S}_2, 27704), M(\mathcal{S}_4, 8)$
rlp1		112.2	78.1	$\mathcal{S}_{45}, M(\mathcal{S}_{45}, 315)$
roi2alpha3n4		0.3	76.1	$M(\mathcal{S}_2, 5190)$
roi5alpha10n8		0.3	27.5	$M(\mathcal{S}_2, 29236)$
rout		2.1	99.8	$M(\mathcal{S}_5, 555)$
rpp22falsei		—	—	—
rvb-sub		2.4	0.0	$(\mathcal{S}_2)^8$
s100		0.3	5.4	$M(\mathcal{S}_2, 19584)$
s250r10		3.2	14.6	1 unknown
savsched1		156.4	10.0	$M(\mathcal{S}_2, 14), M(\mathcal{S}_2, 72), (M(\mathcal{S}_2, 82))^2, (M(\mathcal{S}_2, 90))^2, (M(\mathcal{S}_2, 92))^3, M(\mathcal{S}_2, 96), (M(\mathcal{S}_2, 98))^5, (M(\mathcal{S}_2, 100))^5, (M(\mathcal{S}_2, 102))^3, M(\mathcal{S}_2, 106), M(\mathcal{S}_2, 108), (M(\mathcal{S}_2, 110))^5, (M(\mathcal{S}_2, 118))^2, M(\mathcal{S}_2, 128), M(\mathcal{S}_2, 138), (M(\mathcal{S}_2, 140))^5, (M(\mathcal{S}_2, 142))^2, (M(\mathcal{S}_2, 144))^2, (M(\mathcal{S}_2, 148))^2, (M(\mathcal{S}_2, 150))^2, (M(\mathcal{S}_2, 152))^3, (M(\mathcal{S}_2, 154))^2, (M(\mathcal{S}_2, 156))^3, (M(\mathcal{S}_2, 158))^7, (M(\mathcal{S}_2, 162))^2, M(\mathcal{S}_2, 164), (M(\mathcal{S}_2, 168))^5, (M(\mathcal{S}_2, 172))^4, (M(\mathcal{S}_2, 174))^8, (M(\mathcal{S}_2, 176))^5, (M(\mathcal{S}_2, 178))^4, M(\mathcal{S}_2, 184), M(\mathcal{S}_2, 186), (M(\mathcal{S}_2, 190))^4, M(\mathcal{S}_3, 138), M(\mathcal{S}_3, 147), (M(\mathcal{S}_3, 150))^2, (M(\mathcal{S}_3, 153))^3, M(\mathcal{S}_3, 168), M(\mathcal{S}_3, 231), M(\mathcal{S}_3, 234), M(\mathcal{S}_3, 237), (M(\mathcal{S}_3, 243))^4, M(\mathcal{S}_3, 252), M(\mathcal{S}_3, 255), (M(\mathcal{S}_3, 261))^2, (M(\mathcal{S}_3, 267))^3, M(\mathcal{S}_4, 148), M(\mathcal{S}_4, 276), M(\mathcal{S}_4, 316), M(\mathcal{S}_4, 320), M(\mathcal{S}_4, 324), (M(\mathcal{S}_4, 344))^2, (M(\mathcal{S}_4, 348))^2, M(\mathcal{S}_4, 356), M(\mathcal{S}_5, 230), M(\mathcal{S}_5, 420), M(\mathcal{S}_5, 435), M(\mathcal{S}_6, 336), M(\mathcal{S}_6, 474), (M(\mathcal{S}_7, 553))^2, M(\mathcal{S}_7, 588), M(\mathcal{S}_7, 609), M(\mathcal{S}_9, 414), M(\mathcal{S}_9, 459), M(\mathcal{S}_9, 756), (M(\mathcal{S}_{12}, 948))^2, M(\mathcal{S}_{12}, 1044), M(\mathcal{S}_{14}, 1134), M(\mathcal{S}_{18}, 1566)$

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name	$\log_{10} G $	#vars	factors
sct1	132.6	28.0	\mathcal{S}_2 , 1 unknown
sct2	51.5	35.5	1 unknown
sct31	99.2	29.3	$(\mathcal{S}_2)^{12}, (M(\mathcal{S}_2, 8))^2, (M(\mathcal{S}_2, 12))^5, (M(\mathcal{S}_2, 14))^2, (M(\mathcal{S}_3, 18))^3, (M(\mathcal{S}_4, 24))^2, M(\mathcal{S}_{12}, 72)$, 1 unknown
sct32	103.0	25.1	$(\mathcal{S}_2)^{29}, M(\mathcal{S}_2, 6), (M(\mathcal{S}_2, 14))^6, (M(\mathcal{S}_2, 16))^2, (M(\mathcal{S}_2, 26))^4, (M(\mathcal{S}_2, 28))^{11}, (M(\mathcal{S}_3, 21))^3, M(\mathcal{S}_3, 39), (M(\mathcal{S}_3, 42))^4, (M(\mathcal{S}_4, 28))^2, M(\mathcal{S}_4, 52), (M(\mathcal{S}_4, 56))^4, (M(\mathcal{S}_5, 70))^3, (M(\mathcal{S}_6, 84))^2, M(\mathcal{S}_7, 98), M(\mathcal{S}_8, 104), M(\mathcal{S}_{12}, 84), M(\mathcal{S}_{20}, 260), M(\mathcal{S}_{24}, 336)$
sct5	inf	51.8	$M(\mathcal{S}_2, 8), M(\mathcal{S}_3, 30)$, 1 unknown
seqsolve1	27.2	20.4	$(M(\mathcal{S}_2, 36))^2, M(\mathcal{S}_2, 130), (M(\mathcal{S}_2, 158))^2, M(\mathcal{S}_2, 250), M(\mathcal{S}_2, 446), (M(\mathcal{S}_2, 572))^4, (M(\mathcal{S}_2, 738))^3, (M(\mathcal{S}_3, 54))^2, M(\mathcal{S}_3, 96), M(\mathcal{S}_4, 72), M(\mathcal{S}_4, 352), M(\mathcal{S}_4, 1144), M(\mathcal{S}_9, 153)$, 1 unknown
seqsolve2short4288	27.2	17.3	$(M(\mathcal{S}_2, 36))^2, M(\mathcal{S}_2, 84), M(\mathcal{S}_2, 88), M(\mathcal{S}_2, 130), M(\mathcal{S}_2, 240), M(\mathcal{S}_2, 250), M(\mathcal{S}_2, 312), (M(\mathcal{S}_2, 572))^3, (M(\mathcal{S}_2, 738))^3, (M(\mathcal{S}_3, 54))^2, M(\mathcal{S}_3, 57), M(\mathcal{S}_4, 72), M(\mathcal{S}_4, 196), M(\mathcal{S}_4, 1144), M(\mathcal{S}_9, 153)$, 1 unknown
seymour	0.9	0.7	$(\mathcal{S}_2)^2, M(\mathcal{S}_2, 6)$
seymour1	1.2	0.9	$(\mathcal{S}_2)^3, M(\mathcal{S}_2, 6)$
shiftreg1-4	2.5	29.6	$M(\mathcal{S}_2, 660), M(\mathcal{S}_3, 987), M(\mathcal{S}_4, 1316)$
shiftreg2-7	0.8	0.0	\mathcal{S}_3
shiftreg5-1	7.2	64.6	$(M(\mathcal{S}_2, 2862))^2, (M(\mathcal{S}_2, 2864))^3, M(\mathcal{S}_6, 8592), M(\mathcal{S}_6, 8598)$
shipsched	88.6	1.6	$(\mathcal{S}_2)^6, (\mathcal{S}_3)^{20}, (\mathcal{S}_4)^{13}, \mathcal{S}_5, \mathcal{S}_6, \mathcal{S}_7, (\mathcal{S}_8)^2, (\mathcal{S}_9)^5, \mathcal{S}_{11}$
shipschedule3shipsi	—	—	—
shipschedule6shipsmixi	—	—	—
shipschedule8shipsmixuci	—	—	—
shs1014	1.4	13.3	1 unknown
shs1023	0.3	12.3	$M(\mathcal{S}_2, 54606)$
shs1042	0.3	0.4	$M(\mathcal{S}_2, 1886)$
siena1	95.8	4.3	$(\mathcal{S}_2)^{275}, (\mathcal{S}_3)^{14}, \mathcal{S}_5$
sing11	0.3	5.0	$M(\mathcal{S}_2, 8844)$
sing17	0.3	4.0	$M(\mathcal{S}_2, 18252)$
sing326	0.6	14.0	$M(\mathcal{S}_2, 3390), M(\mathcal{S}_2, 4312)$
sing44	0.6	12.9	$M(\mathcal{S}_2, 3390), M(\mathcal{S}_2, 4312)$
sing5	0.3	5.7	$M(\mathcal{S}_2, 8844)$
snp-06-004-052	3.7	0.0	\mathcal{S}_7
sorrell3	0.6	100.0	1 unknown
sorrell4	0.6	100.0	1 unknown
sorrell7	7.9	100.0	1 unknown
sorrell8	4.5	100.0	5 unknown
sp150x300d	36.2	53.0	$(\mathcal{S}_2)^{44}, (M(\mathcal{S}_2, 4))^{32}, (M(\mathcal{S}_3, 6))^7$, 8 unknown
splan1	—	—	—
splice1k1i	—	—	—
square23	0.9	37.0	1 unknown

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name	$\log_{10} G $	#vars	factors
square31	0.9	36.0	1 unknown
square37	0.9	35.6	1 unknown
square41	0.3	36.9	$M(\mathcal{S}_2, 22940)$
square47	0.3	36.4	$M(\mathcal{S}_2, 34572)$
stein15inf	1.8	100.0	1 unknown
stein9inf	2.6	100.0	1 unknown
stoch-vrpvrp-s5v2c8vrp-v2c8i	—	—	—
supportcase18	12.1	83.5	$M(\mathcal{S}_9, 9990), M(\mathcal{S}_{10}, 1210)$
supportcase20	—	—	—
supportcase25	inf	28.7	$(\mathcal{S}_2)^{72}, (\mathcal{S}_{11})^{72}, (M(\mathcal{S}_2, 6))^{72}, M(\mathcal{S}_2, 574)$
supportcase27i	—	—	—
supportcase28i	—	—	—
supportcase29	inf	92.8	1 unknown
supportcase30	8.3	100.0	1 unknown
supportcase35	0.3	17.8	$M(\mathcal{S}_2, 2300)$
supportcase37	236.8	6.2	$(\mathcal{S}_2)^{342}, (\mathcal{S}_3)^{61}, (\mathcal{S}_4)^{24}, (\mathcal{S}_5)^5, (\mathcal{S}_6)^4, (\mathcal{S}_7)^2, \mathcal{S}_9, \mathcal{S}_{12}, (M(\mathcal{S}_2, 4))^5, (M(\mathcal{S}_2, 6))^2, (M(\mathcal{S}_2, 24))^2, M(\mathcal{S}_3, 6), M(\mathcal{S}_3, 12), M(\mathcal{S}_9, 90)$
supportcase38	—	—	—
supportcase43	3.5	27.7	$M(\mathcal{S}_2, 5052), 4$ unknown
t11nonreg	—	—	—
ta1-UUM	1.2	12.2	$(M(\mathcal{S}_2, 70))^4$
tanglegram6	inf	97.1	$(\mathcal{S}_2)^{66}, (\mathcal{S}_3)^{32}, (\mathcal{S}_4)^{32}, (\mathcal{S}_5)^{12}, (\mathcal{S}_6)^{15}, (\mathcal{S}_7)^3, (\mathcal{S}_8)^{15}, (\mathcal{S}_9)^5, (\mathcal{S}_{10})^{17}, (\mathcal{S}_{11})^5, (\mathcal{S}_{12})^6, (\mathcal{S}_{14})^5, (\mathcal{S}_{15})^6, (\mathcal{S}_{16})^6, \mathcal{S}_{18}, (\mathcal{S}_{20}), \mathcal{S}_{21}, (\mathcal{S}_{22})^3, (\mathcal{S}_{24})^3, (\mathcal{S}_{25})^2, \mathcal{S}_{26}, \mathcal{S}_{27}, (\mathcal{S}_{28})^2, \mathcal{S}_{29}, (\mathcal{S}_{30})^4, \mathcal{S}_{32}, (\mathcal{S}_{33})^4, (\mathcal{S}_{34})^3, \mathcal{S}_{35}, \mathcal{S}_{36}, \mathcal{S}_{37}, \mathcal{S}_{38}, \mathcal{S}_{39}, \mathcal{S}_{40}, \mathcal{S}_{41}, \mathcal{S}_{44}, \mathcal{S}_{45}, (\mathcal{S}_{46})^2, (\mathcal{S}_{48})^2, \mathcal{S}_{49}, (\mathcal{S}_{50})^2, (\mathcal{S}_{56})^2, \mathcal{S}_{60}, \mathcal{S}_{64}, \mathcal{S}_{66}, \mathcal{S}_{67}, \mathcal{S}_{69}, (\mathcal{S}_{72})^2, \mathcal{S}_{74}, (\mathcal{S}_{75})^2, \mathcal{S}_{76}, (\mathcal{S}_{78})^2, (\mathcal{S}_{84})^2, (\mathcal{S}_{87})^2, \mathcal{S}_{92}, \mathcal{S}_{120}, \mathcal{S}_{122}, \mathcal{S}_{136}, \mathcal{S}_{144}, \mathcal{S}_{153}, \mathcal{S}_{168}, \mathcal{S}_{216}, \mathcal{S}_{280}, \mathcal{S}_{288}, \mathcal{S}_{393}, \mathcal{S}_{402}, \mathcal{S}_{758}, \mathcal{S}_{1122}, (M(\mathcal{S}_2, 4))^5, M(\mathcal{S}_3, 6), (M(\mathcal{S}_4, 8))^2, M(\mathcal{S}_2 \wedge \mathcal{S}_{12}, 48), 12$ unknown
Test3	1.2	0.0	$(M(\mathcal{S}_2, 4))^4$
timtab1	0.3	0.5	\mathcal{S}_2
timtab1CUTS	0.3	0.5	\mathcal{S}_2
tokyometro	7.8	1.4	$(\mathcal{S}_2)^{23}, (M(\mathcal{S}_2, 6))^3$
toll-like	140.1	37.8	$(\mathcal{S}_2)^{230}, (M(\mathcal{S}_2, 4))^{10}, (M(\mathcal{S}_2, 6))^2, (M(\mathcal{S}_2, 8))^2, (M(\mathcal{S}_2, 10))^2, M(\mathcal{S}_2, 12), M(\mathcal{S}_2, 30), M(\mathcal{S}_5, 30), 9$ unknown
tpl-tub-ws1617	—	—	—
transportmoment	1.4	0.7	$M(\mathcal{S}_2, 14), M(\mathcal{S}_2, 30), M(\mathcal{S}_3, 21)$
trento1	22.4	1.6	$(\mathcal{S}_2)^{46}, (\mathcal{S}_3)^{11}$
uccase10	51.9	62.4	$M(\mathcal{S}_2, 2012), M(\mathcal{S}_2, 2014), M(\mathcal{S}_3, 3015), (M(\mathcal{S}_4, 2684))^2, M(\mathcal{S}_4, 4016), M(\mathcal{S}_5, 3355), M(\mathcal{S}_5, 5035), M(\mathcal{S}_6, 4026), (M(\mathcal{S}_{10}, 6710))^6$

continued on next page ...

name	$\log_{10} G $	#vars	factors
uccase12	20.0	54.2	$(M(\mathcal{S}_2, 1342))^3, (M(\mathcal{S}_2, 2010))^3, (M(\mathcal{S}_3, 2013))^2,$ $M(\mathcal{S}_3, 3015), M(\mathcal{S}_5, 3355), M(\mathcal{S}_6, 4026), M(\mathcal{S}_{14}, 9394)$
uccase7	0.3	3.0	$M(\mathcal{S}_2, 1006)$
uccase9	0.3	3.0	$M(\mathcal{S}_2, 1008)$
uct-subprob	23.5	10.9	$(\mathcal{S}_2)^{14}, (\mathcal{S}_3)^3, \mathcal{S}_4, (M(\mathcal{S}_2, 4))^{43}, M(\mathcal{S}_2, 14),$ $(M(\mathcal{S}_3, 6))^3$
unitcal_7	1.5	34.9	$M(\mathcal{S}_2, 30), M(\mathcal{S}_2, 1008), M(\mathcal{S}_2, 2628), M(\mathcal{S}_2, 2664),$ $M(\mathcal{S}_2, 2666)$
usAbbrv-8-25_70	0.3	2.0	$M(\mathcal{S}_2, 46)$
usaфа	14.0	2.0	$(M(\mathcal{S}_2, 20))^4, (M(\mathcal{S}_2, 80))^2, M(\mathcal{S}_2, 94), M(\mathcal{S}_2, 102),$ $M(\mathcal{S}_2, 110), M(\mathcal{S}_2, 120), M(\mathcal{S}_2, 128), M(\mathcal{S}_2, 136),$ $(M(\mathcal{S}_2, 144))^2, M(\mathcal{S}_2, 148), M(\mathcal{S}_2, 154), M(\mathcal{S}_2, 162),$ $M(\mathcal{S}_2, 172), (M(\mathcal{S}_2, 174))^2, (M(\mathcal{S}_2, 206))^2,$ $(M(\mathcal{S}_2, 208))^2, M(\mathcal{S}_2, 222), M(\mathcal{S}_3, 141), M(\mathcal{S}_3, 165),$ $M(\mathcal{S}_3, 309), (M(\mathcal{S}_4, 188))^2, M(\mathcal{S}_4, 300)$
vpphard	inf	53.6	$(\mathcal{S}_2)^{574}, (\mathcal{S}_3)^{500}, (\mathcal{S}_4)^{225}, (\mathcal{S}_5)^{40}, \mathcal{S}_6, (\mathcal{S}_7)^3, (\mathcal{S}_8)^3,$ $(\mathcal{S}_9)^2, \mathcal{S}_{10}, \mathcal{S}_{11}, \mathcal{S}_{13}, \mathcal{S}_{15}, 12 \text{ unknown}$
vpphard2	—	—	—
wachplan	1.9	65.5	1 unknown
woodlands09	inf	26.3	$M(\mathcal{S}_2, 80), (M(\mathcal{S}_2, 82))^{81}, (M(\mathcal{S}_2, 84))^{63},$ $(M(\mathcal{S}_3, 126))^{80}, M(\mathcal{S}_4, 168), (M(\mathcal{S}_4, 172))^{42},$ $(M(\mathcal{S}_5, 215))^{20}, (M(\mathcal{S}_6, 258))^{31}, (M(\mathcal{S}_7, 301))^{49},$ $M(\mathcal{S}_8, 344), 24 \text{ unknown}$
z26	68.2	5.4	$(\mathcal{S}_2)^2, \mathcal{S}_3, (M(\mathcal{S}_2, 6))^3, (M(\mathcal{S}_2, 22))^2, (M(\mathcal{S}_2, 26))^{11},$ $M(\mathcal{S}_3, 6), (M(\mathcal{S}_3, 33))^2, M(\mathcal{S}_3, 39), M(\mathcal{S}_4, 52),$ $M(\mathcal{S}_{12}, 24), M(\mathcal{S}_2 \times \mathcal{S}_2, 38), M(\mathcal{S}_2 \times \mathcal{S}_2, 26),$ 6 unknown
zeil	6.6	0.0	\mathcal{S}_{10}