

The minimally transitive groups of degree up to 30

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This list gives index numbers, generators and (for degree up to 15) names (following [CHM98]) for the minimally transitive groups of degree up to 30. Not listed are regular groups – these are obviously minimally transitive and can be easily constructed from a list of isomorphism types of groups.

Also excluded are degrees which are prime or p^2 – in this case all minimally transitive groups are regular.

The information in this list is based on the classification of all transitive groups of degree up to 30 (see [Hul96] and [Hul], to which this list can be considered a supplement): For each group constructed either a transitive proper subgroup was found, or it was proven (using calculations in [GAP00]) that all maximal subgroups are intransitive.

Index numbers refer to the library of transitive groups in the GAP [GAP00] (as obtained via the command `TransitiveGroup` and `TransitiveIdentification`), up to degree 15 they agree with [CHM98]. An underlined index number indicates that the group is not solvable.

To refer to this list, please refer to the paper [Hul].

References

- [CHM98] John H. Conway, Alexander Hulpke, and John McKay, *On transitive permutation groups*, LMS J. Comput. Math. **1** (1998), 1–8.
- [GAP00] The GAP Group, Aachen, St Andrews, *GAP – Groups, Algorithms, and Programming, Version 4.2*, 2000, <http://www-gap.dcs.st-and.ac.uk/~gap>.
- [Hul] Alexander Hulpke, *Constructing transitive permutation groups*, in preparation.
- [Hul96] Alexander Hulpke, *Konstruktion transitiver Permutationsgruppen*, Ph.D. thesis, Rheinisch-Westfälische Technische Hochschule, Aachen, Germany, 1996.

Degree 6:

Nr.	Name	Size	Generators
4	$A_4(6)$	12	(1,4)(2,5),(1,3,5)(2,4,6)
10	$F_{36}(6)$	36	(2,4,6),(1,5)(2,4),(1,4,5,2)(3,6)

Degree 8:

21	$\frac{1}{2}[2^4]E(4)$	32	(1,5)(3,7),(1,4,5,8)(2,3)(6,7),(1,3)(2,8)(4,6)(5,7)
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Degree 10:

4	$\frac{1}{2}[F(5)]2$	20	(1,3,5,7,9)(2,4,6,8,10), (1,2,9,8)(3,6,7,4)(5,10)
7	$A_5(10)$	60	(1,3,5,7,9)(2,4,6,8,10), (1,9)(3,4)(5,10)(6,7)
8	$[2^4]5$	80	(2,7)(5,10), (1,3,5,7,9)(2,4,6,8,10)
18	$[5^2:4]2_2$	200	(2,4,6,8,10),(1,7,9,3)(2,4,8,6), (1,4,3,2,9,6,7,8)(5,10)

Degree 12:

7	$A_4(6)[x]2$	24	(2,8)(3,9)(4,10)(5,11), (1,5,9)(2,6,10)(3,7,11)(4,8,12), (1,12)(2,3)(4,5)(6,7)(8,9)(10,11)
9	$S_4(12e)$	24	(1,7)(3,9)(4,10)(6,12), (1,5,9)(2,6,10)(3,7,11)(4,8,12), (1,2)(3,12)(4,11)(5,10)(6,9)(7,8)
17	$[3^2]4$	36	(2,10,6)(4,8,12), (1,4,7,10)(2,5,8,11)(3,6,9,12)
31	$[4^2]3$	48	(1,10,7,4)(3,6,9,12), (1,5,9)(2,6,10)(3,7,11)(4,8,12)
34	$F_{36}:2(12e)$	72	(1,3,5,7,9,11)(2,4,6,8,10,12), (1,8)(2,3)(4,5)(6,7)(9,12)(10,11)
40	$F_{36}(6)[x]2$	72	(1,5,9)(4,8,12), (2,10)(3,11)(4,8)(5,9), (1,7)(2,8,10,4)(3,9,11,5)(6,12), (1,12)(2,3)(4,5)(6,7)(8,9)(10,11)
46	$[(\frac{1}{3}3^3):2]4_4$	72	(2,6,10)(3,7,11)(4,8,12), (1,5)(2,10)(4,8)(7,11), (1,4,2,11,5,8,10,7)(3,9,12,6)
47	$[(\frac{1}{3}3^3):2]E(4)_4$	72	(2,6,10)(3,7,11)(4,8,12), (1,5)(2,10)(4,8)(7,11), (1,2,5,10)(3,12)(4,11,8,7)(6,9), (1,4,5,8)(2,7,10,11)(3,6)(9,12)
57	$[(\frac{1}{2}2^2)^3]A_4(6)_4$	96	(1,12)(2,3), (1,5,9)(2,6,10)(3,7,11)(4,8,12), (1,2,12,3)(4,7)(5,6)(8,9)
162	$[2^4]F_{36}(6)$	576	(1,12)(4,5), (1,12)(8,9),(1,5,9)(4,8,12), (2,10)(3,11)(4,8)(5,9), (1,7)(2,8,10,4)(3,9,11,5)(6,12)
166	$[\frac{1}{9}A(4)^3]3_3$	576	(3,12)(6,9), (3,9)(6,12), (2,8,11)(3,6,12)(4,7,10), (1,3,11,7,6,2,10,9,5)(4,12,8)
246	$\frac{1}{2}[S(3)^4]E(4)$	2592	(4,8,12), (2,10)(4,8), (1,10)(2,5)(3,12)(4,7)(6,9)(8,11), (1,7)(2,8,10,4)(3,9)(5,11)(6,12)

Degree 14:

6	$[2^3]7$	56	(3,10)(5,12)(6,13)(7,14), (1,3,5,7,9,11,13)(2,4,6,8,10,12,14)
10	$L_7(14)$	168	(1,3,5,7,9,11,13)(2,4,6,8,10,12,14), (1,9,11)(2,4,8)(3,13,5)(6,12,10), (1,8)(2,13)(3,10)(4,12)(5,11)(6,9)
12	$\frac{1}{2}[D(7)^2]2$	196	(2,4,6,8,10,12,14), (1,13)(2,12)(3,11)(4,10)(5,9)(6,8), (1,6,13,8)(2,9,12,5)(3,4,11,10)(7,14)
30	$PSL_2(13)$	1092	(1,2,3,4,5,6,7,8,9,10,11,12,14), (1,4,3,12,9,10)(2,8,6,11,5,7), (1,12)(2,6)(3,4)(7,11)(9,10)(13,14)

Degree 15:

5	$A_5(15)$	60	(1,9,10,3,14)(2,15,7,12,6)(4,5,11,13,8), (1,4,10)(2,5,8)(3,7,11)(6,9,15)(12,14,13)
9	$[5^2]3$	75	(1,13,10,7,4)(2,5,8,11,14), (1,6,11)(2,7,12)(3,8,13)(4,9,14)(5,10,15)
26	$[3^4]5$	405	(1,6,11)(4,14,9), (1,4,7,10,13)(2,5,8,11,14)(3,6,9,12,15)

Degree 16:

Nr.	Size	Generators
33	32	(1,9,3,7)(2,10,4,8)(5,13,15,11)(6,14,16,12), (1,11,6,8)(2,12,5,7)(3,10,16,13)(4,9,15,14)
36	32	(1,2)(3,11)(4,12)(5,13)(6,14)(7,8)(9,10)(15,16), (1,3,6,8,10,12,13,15)(2,4,5,7,9,11,14,16)
40	32	(1,11,3,13,2,12,4,14)(5,15,7,10,6,16,8,9), (1,15,4,10,2,16,3,9)(5,12,8,14,6,11,7,13)
42	32	(1,3,5,15)(2,4,6,16)(7,8)(9,10)(11,12)(13,14), (1,10)(2,9)(3,12)(4,11)(5,14)(6,13)(7,16)(8,15)
49	32	(1,4,6,8,2,3,5,7)(9,12,14,16,10,11,13,15), (1,12,5,16,2,11,6,15)(3,10,8,13,4,9,7,14)
53	32	(1,2)(3,11)(4,12)(5,13)(6,14)(7,8)(9,10)(15,16), (1,4,5,15)(2,3,6,16)(7,9,12,13)(8,10,11,14)
77	64	(1,12,2,11)(3,9,4,10)(5,16,13,8)(6,15,14,7), (1,5,9,13)(2,6,10,14)(3,15,11,7)(4,16,12,8)
88	64	(1,5,2,6)(3,16,4,15)(7,12,8,11)(9,14,10,13), (1,15,2,16)(3,13,11,5)(4,14,12,6)(7,10,8,9)
90	64	(1,14,4,16,2,13,3,15)(5,9,8,12,6,10,7,11), (1,9)(2,10)(3,12)(4,11)(5,16,6,15)(7,13,8,14)
91	64	(1,3)(2,4)(5,15,14,7)(6,16,13,8)(9,11)(10,12), (1,15,10,7)(2,16,9,8)(3,13)(4,14)(5,11)(6,12)
92	64	(1,3)(2,4)(5,8,14,16)(6,7,13,15)(9,11)(10,12), (1,2)(3,11)(4,12)(5,13)(6,14)(7,8)(9,10)(15,16), (1,14)(2,13)(3,8)(4,7)(5,10)(6,9)(11,15)(12,16)
101	64	(1,14,2,13)(3,15,4,16)(5,11)(6,12)(7,10)(8,9), (1,15)(2,16)(3,13)(4,14)(5,10,6,9)(7,12,8,11), (1,5)(2,6)(3,8)(4,7)(9,16,10,15)(11,13,12,14)
108	64	(1,13,4,15,2,14,3,16)(5,9,7,11,6,10,8,12), (1,9,4,12,2,10,3,11)(5,15,7,13,6,16,8,14)
123	64	(1,11)(2,12)(3,9)(4,10)(5,13,6,14)(7,15,8,16), (1,7)(2,8)(3,6)(4,5)(9,16,10,15)(11,14,12,13)
127	64	(1,2)(3,4)(5,6)(7,15)(8,16)(9,10)(11,12)(13,14), (1,5)(2,6)(3,16)(4,15)(7,12)(8,11)(9,13)(10,14), (1,16)(2,15)(3,5)(4,6)(7,10)(8,9)(11,13)(12,14)
140	64	(1,4,2,3)(5,7,6,8)(9,11,10,12)(13,15,14,16), (1,5,9,15)(2,6,10,16)(3,7,12,13)(4,8,11,14)
160	64	(1,5,2,6)(3,7,4,8)(9,15)(10,16)(11,14)(12,13), (1,3,2,4)(5,13)(6,14)(7,16)(8,15)(9,11,10,12)
167	64	(1,13,9,5)(2,14,10,6)(3,4)(7,8)(11,12)(15,16), (1,12,14,15)(2,11,13,16)(3,5,8,10)(4,6,7,9)
170	64	(1,2)(3,4)(5,6)(7,15)(8,16)(9,10)(11,12)(13,14), (1,3,5,16)(2,4,6,15)(7,10,12,14)(8,9,11,13)
171	64	(1,15,6,4,9,7,14,12)(2,16,5,3,10,8,13,11), (1,3,9,11)(2,4,10,12)(5,15)(6,16)(7,13)(8,14)
173	64	(1,15)(2,16)(3,13)(4,14)(5,9,6,10)(7,11,8,12), (1,10)(2,9)(3,11)(4,12)(5,16,6,15)(7,13,8,14), (1,4,2,3)(5,7,6,8)(9,12,10,11)(13,15,14,16)
174	64	(1,8,9,14)(2,7,10,13)(3,5,12,15)(4,6,11,16), (1,5,2,6)(3,7,4,8)(9,16)(10,15)(11,13)(12,14)
212	128	(1,5)(2,6)(3,7)(4,8)(9,14,10,13)(11,15,12,16), (1,15,2,16)(3,14,4,13)(5,12)(6,11)(7,9)(8,10), (1,8,2,7)(3,6,4,5)(9,15,10,16)(11,13,12,14)
295	128	(1,8,2,7)(3,6,4,5)(9,16)(10,15)(11,13)(12,14), (1,5)(2,6)(3,8)(4,7)(9,13,10,14)(11,15,12,16), (1,15)(2,16)(3,13,4,14)(5,12,6,11)(7,10)(8,9)
323	128	(1,3,5,7)(2,4,6,8)(9,12,13,15)(10,11,14,16), (1,14,2,13)(3,11,8,16)(4,12,7,15)(5,9,6,10)
335	128	(1,7,5,3,2,8,6,4)(9,11,10,12)(13,15,14,16), (1,10,5,14,2,9,6,13)(3,12,8,15,4,11,7,16)
343	128	(1,13)(2,14)(3,12)(4,11)(5,9)(6,10)(7,15)(8,16), (1,3)(2,4)(5,8)(6,7)(9,12,14,15,10,11,13,16)
358	128	(1,13,2,14)(3,16)(4,15)(5,10,6,9)(7,11)(8,12), (1,12,2,11)(3,10,4,9)(5,16)(6,15)(7,13)(8,14), (1,16,2,15)(3,13,4,14)(5,11,6,12)(7,9,8,10)
363	128	(1,13,5,10)(2,14,6,9)(3,15)(4,16)(7,11,8,12), (1,11,5,16)(2,12,6,15)(3,13)(4,14)(7,10,8,9)
372	128	(1,3)(2,4)(5,8,6,7)(9,12,10,11)(13,16)(14,15), (1,13,2,14)(3,16)(4,15)(5,10,6,9)(7,11)(8,12), (1,11,2,12)(3,9)(4,10)(5,16)(6,15)(7,13,8,14)
375	128	(1,14,2,13)(3,12,7,16)(4,11,8,15)(5,10)(6,9), (1,4,2,3)(5,7,6,8)(9,16)(10,15)(11,13)(12,14)
377	128	(1,15,5,12)(2,16,6,11)(3,13)(4,14)(7,9,8,10), (1,14,6,9)(2,13,5,10)(3,11,4,12)(7,15)(8,16)
555	256	(1,6,2,5)(3,7,4,8)(9,13,11,15,10,14,12,16), (1,15,4,13,2,16,3,14)(5,9)(6,10)(7,12)(8,11)
556	256	(1,7,4,6,2,8,3,5)(9,16)(10,15)(11,13)(12,14), (1,12,2,11)(3,9,4,10)(5,14,6,13)(7,15,8,16)
559	256	(1,11,2,12)(3,9)(4,10)(5,13)(6,14)(7,15,8,16), (1,16,3,13,2,15,4,14)(5,12,7,10,6,11,8,9)
575	256	(1,14,4,15,2,13,3,16)(5,10,6,9)(7,11)(8,12), (1,6,2,5)(3,7)(4,8)(9,13,12,15,10,14,11,16)
585	256	(1,7)(2,8)(3,5,4,6)(9,15,10,16)(11,14)(12,13), (1,10,2,9)(3,11)(4,12)(5,16,6,15)(7,13)(8,14)
587	256	(1,7,4,6,2,8,3,5)(9,13,10,14)(11,15)(12,16), (1,10,3,12)(2,9,4,11)(5,14,8,15)(6,13,7,16)
589	256	(1,16,4,13)(2,15,3,14)(5,11,7,10)(6,12,8,9), (1,8,4,6)(2,7,3,5)(9,14,11,15)(10,13,12,16)
598	256	(1,15,3,14)(2,16,4,13)(5,11,7,9)(6,12,8,10), (1,8,4,5,2,7,3,6)(9,13,12,16,10,14,11,15)
609	256	(1,14,3,15)(2,13,4,16)(5,12,7,10)(6,11,8,9), (1,12)(2,11)(3,10,4,9)(5,13,6,14)(7,15)(8,16), (1,13,4,16)(2,14,3,15)(5,11,8,9)(6,12,7,10)

Nr.	Size	Generators
612	256	(1,8,4,5,2,7,3,6)(9,15,11,14,10,16,12,13), (1,12,3,10)(2,11,4,9)(5,14,7,16)(6,13,8,15)
620	256	(1,6)(2,5)(3,7)(4,8)(9,13,11,15,10,14,12,16), (1,11,3,10,2,12,4,9)(5,15,8,13,6,16,7,14)
637	256	(1,15,4,14)(2,16,3,13)(5,12,7,9)(6,11,8,10), (1,7,3,5,2,8,4,6)(9,15,11,13,10,16,12,14)
643	256	(1,6,9,15,2,5,10,16)(3,7,12,13)(4,8,11,14), (1,8,10,13)(2,7,9,14)(3,6,12,15,4,5,11,16)
651	256	(1,6,9,15)(2,5,10,16)(3,7,12,13,4,8,11,14), (1,14,10,8,2,13,9,7)(3,15,12,6)(4,16,11,5)
682	256	(1,6,3,8,2,5,4,7)(9,14)(10,13)(11,16,12,15), (1,9)(2,10)(3,12)(4,11)(5,13)(6,14)(7,15)(8,16), (3,4)(5,7,6,8)(9,10)(13,15,14,16)
684	256	(1,16,2,15)(3,14)(4,13)(5,10,6,9)(7,11)(8,12), (1,12,2,11)(3,9,4,10)(5,7,6,8)(13,15)(14,16), (3,4)(5,6)(9,10)(15,16)
695	256	(1,10)(2,9)(3,12)(4,11)(5,16,6,15)(7,13,8,14), (1,14,4,16)(2,13,3,15)(5,12,6,11)(7,9,8,10)
703	256	(1,8,9,14)(2,7,10,13)(3,5,12,16,4,6,11,15), (1,4)(2,3)(5,14,6,13)(7,16,8,15)(9,12,10,11), (1,8,9,14)(2,7,10,13)(3,6,12,15,4,5,11,16)
1118	1024	(1,6)(2,5)(3,7)(4,8)(9,15,11,14,10,16,12,13), (1,10,2,9)(3,11)(4,12)(5,13,6,14)(7,16)(8,15)
1133	1024	(1,8,4,6)(2,7,3,5)(9,14,10,13)(11,16)(12,15), (1,13)(2,14)(3,16,4,15)(5,12,8,9)(6,11,7,10)
1146	1024	(1,7,2,8)(3,13,4,14)(5,11)(6,12)(9,16,10,15), (1,13)(2,14)(3,11)(4,12)(5,10)(6,9)(7,16,8,15)
1187	1024	(1,7)(2,8)(3,14,4,13)(5,11)(6,12)(9,15,10,16), (1,11,2,12)(3,9,4,10)(5,8,6,7)(13,15,14,16), (1,14)(2,13)(3,7)(4,8)(5,9,6,10)(11,15)(12,16)
1196	1024	(1,7,2,8)(3,6,4,5)(9,13,11,16)(10,14,12,15), (1,12,3,10,2,11,4,9)(5,13,8,15,6,14,7,16)
1207	1024	(1,16,3,14,2,15,4,13)(5,12)(6,11)(7,10,8,9), (1,12,3,10,2,11,4,9)(5,16,8,14,6,15,7,13)
1210	1024	(1,13,6,9)(2,14,5,10)(3,12,15,8,4,11,16,7), (1,8,6,12)(2,7,5,11)(3,13,15,9,4,14,16,10)
1212	1024	(1,12,4,10)(2,11,3,9)(5,14,7,15)(6,13,8,16), (1,15)(2,16)(3,14,4,13)(5,12,7,10)(6,11,8,9), (1,3,2,4)(5,7,6,8)(9,11,10,12)(13,15,14,16)
1229	1024	(1,11,6,8)(2,12,5,7)(3,13,15,9,4,14,16,10), (1,9,2,10)(3,11)(4,12)(5,13)(6,14)(7,15)(8,16)
1232	1024	(1,9,2,10)(3,12)(4,11)(5,16)(6,15)(7,13,8,14), (1,6,4,7,2,5,3,8)(9,14)(10,13)(11,16,12,15)
1418	2048	(1,7,2,8)(3,6)(4,5)(9,15)(10,16)(11,13)(12,14), (1,9,6,13)(2,10,5,14)(3,11)(4,12)(7,16,8,15)

Degree 18:

Nr.	Size	Generators
7	36	(1,7,16,6,11,14,3,10,17)(2,8,15,5,12,13,4,9,18), (1,17,9,3,14,12,6,16,8)(2,18,10,4,13,11,5,15,7)
8	36	(1,16,10)(2,15,9)(3,18,11)(4,17,12)(5,13,8)(6,14,7), (1,8,17)(2,7,18)(3,10,14)(4,9,13)(5,11,15)(6,12,16)
10	36	(1,14)(2,13)(3,12)(4,11)(5,9)(6,10)(15,18)(16,17), (1,13,10,15)(2,14,9,16)(3,5,7,18)(4,6,8,17)(11,12)
28	72	(1,8,14)(2,7,13)(3,9,16)(4,10,15)(5,12,18)(6,11,17), (1,12,3,18,6,13,9,7)(2,11,4,17,5,14,10,8)(15,16)
44	108	(1,18,13,12,3,17,15,11,2,16,14,10)(4,8,5,9,6,7), (4,17,10)(5,18,11)(6,16,12)
49	108	(1,8,14)(2,9,15)(3,7,13)(4,10,18)(5,11,16)(6,12,17), (1,6,15,10,3,5,14,12,24,13,11)(7,17,8,18,9,16)
54	108	(1,18)(2,17)(3,16)(4,13,10,8)(5,15,11,7)(6,14,12,9), (1,16,15,6)(2,18,13,5)(3,17,14,4)(7,12)(8,11)(9,10)
130	324	(1,13,9,17)(2,15,8,18)(3,14,7,16)(4,10)(5,12,6,11), (1,17,3,18)(2,16)(4,15,7,11)(5,14,9,12)(6,13,8,10)
141	324	(1,15,8,17,11,6,3,13,10)(2,16,7,18,12,5,4,14,9), (1,4)(2,3)(7,9)(8,10)(11,12)(13,14)(15,16)(17,18)
142	324	(1,14,9,2,13,8,3,15,7)(4,10,18)(5,12,16)(6,11,17), (1,10,6,2,11,4,3,12,5)(7,15,1,6)(8,14,17)(9,13,18)
143	324	(1,14,8,17,11,5,4,15,9)(2,13,7,18,12,6,3,16,10), (1,16,6)(2,15,5)(3,14,9)(4,13,10)(7,17,12)(8,18,11)
177	576	(1,17,9,4,13,11,6,15,8)(2,18,10,3,14,12,5,1,6,7), (1,4,5)(2,3,6)(7,9,11)(8,10,12)(13,16,18)(14,15,17)
246	972	(1,13,6,12)(2,15,4,10)(3,14,5,11)(7,16)(8,18,9,17), (1,11,8,14,2,10,7,15,3,12,9,13)(4,17)(5,18,6,16)
259	972	(1,14)(2,15,3,13)(4,18,8,12,6,16,7,11,5,17,9,10), (1,17,6,13,2,16,4,14,3,18,5,15)(7,12,8,11)(9,10)
280	1296	(1,5,3,2)(4,7,9,6)(11,15,18,14)(12,16,17,13), (1,10,5,13,2,12,9,17,7,18,3,15,6,16,8,14)(4,11)
377	2448	(1,5,15,9,2,6,13,12,11)(3,16,8,4,10,7,18,17,14), (1,8,11,14,4,6,3,2,16)(5,15,9,10,18,12,13,7,17)
688	34992	(1,14,10)(2,13,11)(3,15,12)(4,16,8,6,17,7,5,18,9), (1,5)(2,4,3,6)(7,8,9)(10,11,12)(13,18,14,16)(15,17)
753	69984	(1,16,12)(2,18,11)(3,17,10)(4,15,8,5,13,7,6,14,9), (1,14,12,3,13,11,2,15,10)(4,16,9,6,17,7,5,18,8)

Degree 20:

Nr.	Size	Generators
13	40	(1,3,5,8,10,12,14,16,18,19)(2,4,6,7,9,11,13,15,17,20), (1,13,18,6)(2,14,17,5)(3,7,16,11)(4,8,15,12)(9,10)(19,20)
15	60	(1,6,10,13,17)(2,5,9,14,18)(3,8,12,15,20)(4,7,11,16,19), (1,17)(2,18)(3,4)(5,7)(6,8)(9,20)(10,19)(11,14)(12,13)(15,16)
17	80	(1,2)(3,14)(4,13)(5,6)(9,20)(10,19)(11,12)(15,16), (1,6,10,14,18)(2,5,9,13,17)(3,7,12,15,19)(4,8,11,16,20)
23	80	(3,14)(4,13)(5,6)(7,8)(9,20)(10,19)(15,16)(17,18), (1,6,9,13,17)(2,5,10,14,18)(3,7,11,16,19)(4,8,12,15,20)
31	120	(1,12,3,15,5,2,11,4,16,6)(7,10,17,20,13,8,9,18,19,14), (1,10)(2,9)(3,8)(4,7)(5,6)(11,20)(12,19)(13,18)(14,17)(15,16)
32	120	(1,3)(2,4)(5,13)(6,14)(7,8)(9,10)(11,12)(15,17)(16,18)(19,20), (1,5,9,14,18)(2,6,10,13,17)(3,7,12,16,20)(4,8,11,15,19)
43	160	(1,13,11,3)(2,14,12,4)(5,9)(6,10)(7,18)(8,17)(15,19)(16,20), (1,15)(2,16)(3,14)(4,13)(5,11)(6,12)(7,9,17,19)(8,10,18,20)
44	160	(1,2)(3,4)(5,6)(7,8)(9,19)(10,20)(11,12)(13,14)(15,16)(17,18), (1,5,9,14,18)(2,6,10,13,17)(3,7,12,16,20)(4,8,11,15,19)
47	200	(1,16,10,3)(2,15,9,4)(5,19)(6,20)(7,17,12,14)(8,18,11,13), (1,9,14,6)(2,10,13,5)(3,20,12,15)(4,19,11,16)(7,8)(17,18)
50	200	(1,7,14,20)(2,8,13,19)(3,18)(4,17)(5,12,9,16)(6,11,10,15), (1,13,6,18,10,2,14,5,17,9)(3,7)(4,8)(11,19)(12,20)(15,16)
55	200	(1,7,14,19,5,12,17,3,10,16)(2,8,13,20,6,11,18,4,9,15), (1,2)(3,4)(5,13,17,9)(6,14,18,10)(7,11,19,15)(8,12,20,16)
56	200	(3,16,7,19,12)(4,15,8,20,11), (1,15,2,16)(3,14,11,6,7,10,20,18)(4,13,12,5,8,9,19,17)
79	320	(1,15,13,20,11,5,3,10)(2,16,14,19,12,6,4,9)(7,18)(8,17), (1,10,16,7,11,20,6,17)(2,9,15,8,12,19,5,18)(3,14)(4,13)
83	320	(1,18,2,17)(3,14,15,6)(4,13,16,5)(7,20,10,11,8,19,9,12), (1,6,11,7)(2,5,12,8)(3,9)(4,10)(13,16,17,19)(14,15,18,20)
89	360	(1,19,6)(2,20,5)(3,17,12)(4,18,11)(9,16,14)(10,15,13), (1,5,14)(2,6,13)(3,15,18)(4,16,17)(7,12,20)(8,11,19)
107	400	(1,11,5,13,4,15,3,12,2,14)(6,17,7,20,8,18,9,16,10,19), (1,19,2,17,4,18,3,20)(5,16)(6,13,8,11,7,12,10,14)(9,15)
110	400	(1,17,6,9)(2,18,5,10)(3,4)(7,15,19,11)(8,16,20,12)(13,14), (1,8,18,15,10,11,13,4)(2,7,17,16,9,12,14,3)(5,19)(6,20)
115	400	(1,18,13,9,6,2,17,14,1,0,5)(3,20)(4,19)(7,16)(8,15)(11,12), (1,8,17,3,10,16,13,19)(2,7,18,4,9,15,14,20)(5,12)(6,11)
146	720	(1,7,11,13,3,15,5,9)(2,8,12,14,4,16,6,10)(17,18)(19,20), (1,20,17,7,5,12,3,15,10,13)(2,19,18,8,6,11,4,16,9,14)
148	720	(1,16,14,3)(2,15,13,4)(5,8,17,10)(6,7,18,9), (1,4)(2,3)(5,9,19,15,11,7,17,13)(6,10,20,16,12,8,18,14)
161	800	(1,8,14,11,10,4,17,20)(2,7,13,12,9,3,18,19)(5,15)(6,16), (1,9)(2,10)(3,4)(5,6)(7,15,19,11)(8,16,20,12)(13,17)(14,18)
172	960	(1,11,13,9,18)(2,12,14,10,17)(3,8,19,16,5)(4,7,20,15,6), (1,13,15)(2,14,16)(3,18,6,4,17,5)(7,19,9)(8,20,10)(11,12)
188	1280	(1,16,17,9,8)(2,15,18,10,7)(3,14,20,11,6)(4,13,19,12,5), (3,4)(5,6)(7,8)(9,10)(13,15,14,16)(17,20,18,19)
193	1280	(1,15,19,9,6)(2,16,20,10,5)(3,13,18,12,7)(4,14,17,11,8), (1,9,15,7,20)(2,10,16,8,19)(3,12,13,5,17)(4,11,14,6,18)
239	2560	(1,2)(5,7,6,8)(13,15,14,16)(17,18), (1,5,16,10,20)(2,6,15,9,19)(3,7,13,12,18)(4,8,14,11,17)
245	2560	(1,10,6,20,16)(2,9,5,19,15)(3,11,7,17,14)(4,12,8,18,13), (1,3)(2,4)(5,8)(6,7)(9,10)(15,16)(17,18)(19,20)
247	2560	(1,8,15,9,20,2,7,16,10,19)(3,6,14,11,18,4,5,13,12,17), (1,8,13,11,20,2,7,14,12,19)(3,6,15,9,18,4,5,16,10,17)
385	10000	(1,16)(2,18)(3,20)(4,17)(5,19)(6,11)(7,13)(8,15)(9,12)(10,14), (1,15,3,14,5,13,2,12,4,11)(6,19,7,18,8,17,9,16,10,20)
392	10000	(1,13,3,14,4,12,2,11)(5,15)(6,20)(7,16,9,18,10,19,8,17), (1,20,12,10,4,18,13,6,3,17,1,9,5,19,15,8)(2,16,14,7)
399	10000	(1,6,4,10,3,7,5,8)(2,9)(11,20,15,18,13,19,14,16)(12,17), (1,16,2,17)(3,18,5,20)(4,19)(6,14,8,11)(7,15)(9,12,10,13)
402	10000	(1,14,4,13,2,12,5,11,3,15)(6,17,9,20,7,18,10,16,8,19), (1,19,3,20)(2,17)(4,18,5,16)(6,15)(7,13,10,12)(8,11,9,14)
473	20000	(1,15,4,12,2,14,5,11,3,13)(6,20,10,17)(7,18,9,19)(8,16), (1,19,2,20,3,16,4,17,5,18)(6,11,8,12)(7,14)(9,15,10,13)
478	20000	(1,13,2,12,5,14,4,15)(3,11)(6,19)(7,16,8,18,10,17,9,20), (1,10,4,6,2,7,5,8,3,9)(11,18,13,16,15,9,12,17,14,20)
496	20000	(1,10,4,9)(2,8,3,6)(5,7)(11,16,15,20)(12,17,14,19)(13,18), (1,16,2,20,5,17,4,18)(3,19)(6,15,10,12,8,11,9,14)(7,13)
501	20000	(1,14,4,12,5,13,2,15)(3,11)(6,16)(7,19,8,17,10,18,9,20), (1,19)(2,20,4,17,5,18,3,16)(6,12,8,15,9,14,7,11)(10,13)
596	40000	(1,13)(2,14,4,11,5,12,3,15)(6,19,10,16,8,20,9,18)(7,17), (1,10,4,7,3,8,5,6)(2,9)(11,19,12,20,14,17,13,16)(15,18)

Nr.	Size	Generators
621	40000	(1,18,5,20,3,19,4,17)(2,16)(6,14,8,13,7,11,10,12)(9,15), (1,8,4,7)(2,6,3,9)(5,10)(11,17,12,19,13,16,14,18,15,20)
628	40000	(1,17,4,19)(2,16,3,20)(5,18)(6,12,7,14,8,11,9,13,10,15), (1,8,3,7)(2,10)(4,9,5,6)(11,18,13,19,15,20,12,16,14,17)
651	51200	(1,7,10,3,2,8,9,4)(5,6)(11,13,17,16)(12,14,18,15), (1,18,7,13,5,12,10,16)(2,17,8,14,6,11,9,15)(3,19)(4,20)
818	160000	(1,13,2,15)(3,12,5,11)(4,14)(6,17,9,20,10,16,7,18)(8,19), (1,16,2,18,4,17,3,20)(5,19)(6,13,7,14,8,15,9,11,10,12)
820	160000	(1,16,4,17,2,18,5,19,3,20)(6,15,8,11,9,14,7,13)(10,12), (1,11)(2,12,4,14,5,15,3,13)(6,17,8,18)(7,20)(9,16,10,19)
939	518400	(1,20,10,19,5,11,9,16,2,13,3,18,4,14,6,17)(7,15,8,12), (1,18,8,15,6,13,2,19)(3,11,7,12,4,16,10,14)(5,17)(9,20)

Degree 21:

Nr.	Size	Generators
35	3087	(1,12,16,5,10,21,7,9,20)(2,8,19)(3,11,15,6,13,17,4,14,18), (1,5,2,6,3,7,4)(8,11,14,10,13,9,12)(15,16,17,18,19,20,21)
39	5103	(1,13,6,16,7,21,1,10)(2,14,4,17,8,20,11)(3,15,5,18,9,19,12), (1,15,4,16,8,19,12)(2,13,5,17,9,21,1,0)(3,14,6,18,7,20,11)
67	20160	(2,14,18,20,8)(3,7,12,13,19)(4,21,17,15,10)(5,11,16,6,9), (1,7,12,16,19,21,6)(2,8,13,17,20,5,11)(3,9,14,18,4,10,15)

Degree 22:

Nr.	Size	Generators
8	484	(1,21,11,15)(2,16,10,20)(3,22,9,14)(4,17,8,19)(5,12,7,13)(6,18), (1,8)(2,7)(3,6)(4,5)(9,11)(12,19)(13,18)(14,17)(15,16)(20,22)
22	7920	(1,22,15,4,20)(2,21,16,3,19)(5,12,14,9,8)(6,11,13,10,7), (1,11,3,19,14)(2,12,4,20,13)(5,17,16,9,7)(6,18,15,10,8)
23	11264	(1,4,6,8,10,12,14,15,17,20,21)(2,3,5,7,9,11,13,16,18,19,22), (1,11,21,10,19,8,18,6,15,3,14)(2,12,22,9,20,7,17,5,16,4,13)
38	443520	(1,17,9,5,10,22,8)(3,20,15,12,19,11,14)(4,21,16,13,7,18,6), (1,5,10)(2,17,12)(3,8,4)(6,16,19)(9,18,21)(14,20,22)

Degree 24:

Nr.	Size	Generators
47	48	(1,6,10,13,18,22)(2,5,9,14,17,21)(3,7,12,15,19,24)(4,8,11,16,20,23), (1,23,14,12)(2,24,13,11)(3,10)(4,9)(5,8,18,19)(6,7,17,20)(15,22)(16,21)
50	48	(1,4,10,23,5,8)(2,3,9,24,6,7)(11,17,20,13,16,22)(12,18,19,14,15,21), (1,22,18,13,10,6)(2,21,17,14,9,5)(3,23,20,15,11,8)(4,24,19,16,12,7)
51	48	(1,3,8,15)(2,4,7,1,6)(5,23)(6,24)(9,13,21,2,0)(10,14,22,19)(11,12)(17,18), (1,11,9,14,18,16)(2,12,10,13,17,15)(3,20,5,22,7,24)(4,19,6,21,8,23)
55	48	(1,8,13,20)(2,7,14,19)(3,21,15,9)(4,22,16,10)(5,24,17,12)(6,23,18,11), (1,21,5)(2,22,6)(3,11,8)(4,12,7)(9,17,13)(10,18,14)(15,23,20)(16,24,19)
56	48	(1,12,9,19,5,3,13,24,21,7,17,15)(2,11,10,20,6,4,14,23,22,8,18,16), (1,18,21)(2,17,22)(3,7,23)(4,8,24)(5,10,14)(6,9,13)(11,15,19)(12,16,20)
57	48	(1,11,2,12)(3,21,15,9)(4,22,16,10)(5,20,6,19)(7,17,8,18)(13,23,14,24), (1,19,13,7)(2,20,14,8)(3,6,15,18)(4,5,16,17)(9,11,21,23)(10,12,22,24)
58	48	(1,10,18)(2,9,17)(3,11,20)(4,12,19)(5,14,21)(6,13,22)(7,16,24)(8,15,23), (1,19,13,7)(2,20,14,8)(3,4)(5,12,17,24)(6,11,18,23)(9,10)(15,16)(21,22)
59	48	(1,9,18)(2,10,17)(3,12,19)(4,11,20)(5,14,22)(6,13,21)(7,15,24)(8,16,23), (1,13)(2,14)(3,4)(5,18)(6,17)(7,19)(8,20)(9,10)(11,24)(12,23)(15,16)(21,22), (1,19)(2,20)(5,23)(6,24)(7,13)(8,14)(11,17)(12,18)
63	72	(1,15,22,20,2,16,21,19)(3,10,24,6,4,9,23,5)(7,14,11,18,8,13,12,17), (1,17,10)(2,18,9)(5,13,21)(6,14,22)
72	72	(1,5,9,13,18,21)(2,6,10,14,17,22)(3,7,11,16,19,24)(4,8,12,15,20,23), (1,16)(2,15)(3,6)(4,5)(7,9)(8,10)(11,14)(12,13)(17,23)(18,24)(19,22)(20,21)
76	72	(1,6,10,2,1)(2,5,9,22)(3,8,20,24)(4,7,19,2,3)(11,16,12,15)(13,17,14,18), (1,19,2,20)(3,17,11,9)(4,18,12,10)(5,16,13,8)(6,15,14,7)(21,24,22,23)
81	72	(1,13,11,24,9,5,19,7)(2,14,12,23,10,6,20,8)(3,15,17,22,4,16,18,21), (1,17)(2,18)(3,4)(5,6)(7,8)(9,10)(11,19)(12,20)(13,22)(14,21)(15,23)(16,24)
82	72	(1,21,17,13)(2,22,18,14)(3,8,4,7)(5,9,6,10)(11,16,19,24)(12,15,20,23), (1,24,2,23)(3,13,4,14)(5,19,22,11)(6,20,21,12)(7,18,15,9)(8,17,16,10)
93	96	(1,12,5,10,4,7)(2,11,6,9,3,8)(13,23,18,21,15,20)(14,24,17,22,16,19), (1,16,4,17,5,14)(2,15,3,18,6,13)(7,21,9,24,12,20,8,22,10,23,11,19)
94	96	(1,7,6,11,3,10,2,8,5,12,4,9)(13,22,17,20,16,24)(14,21,18,19,15,23), (1,23)(2,24)(3,21)(4,22)(5,19)(6,20)(7,16,8,15)(9,14,10,13)(11,18,12,17)

Nr.	Size	Generators
96	96	(1,17,2,18)(3,16,4,15)(5,13,6,14)(7,21)(8,22)(9,20)(10,19)(11,24)(12,23), (1,19,2,20)(3,23,4,24)(5,21,6,22)(7,18)(8,17)(9,16)(10,15)(11,13)(12,14)
122	96	(1,13,19,8,16,18)(2,14,20,7,15,17)(3,12,22,6,9,23)(4,11,21,5,10,24), (1,22,1,1,7,24,10)(2,21,12,8,23,9)(3,20,14,5,18,15)(4,19,13,6,17,16)
174	96	(1,5,10)(2,6,9)(3,20,23)(4,19,24)(7,12,16)(8,11,15)(13,17,22)(14,18,21), (1,23,4,13,11,16)(2,24,3,14,12,15)(5,9,19,17,21,7)(6,10,20,18,22,8)
179	96	(1,9,16,24,8,17)(2,10,15,23,7,18)(3,12,21,6,1,3,20)(4,11,22,5,14,19), (1,13,19)(2,14,20)(3,8,15)(4,7,1,6)(5,10,17)(6,9,18)(11,21,23)(12,22,24)
180	96	(1,4,2,3)(5,23,6,24)(7,10)(8,9)(15,21,17,19)(16,22,18,20), (1,8,21)(2,7,22)(3,12,16)(4,11,15)(5,14,18)(6,13,17)(9,20,24)(10,19,23)
181	96	(1,4,9,13,16,22)(2,3,10,14,15,21)(5,8,12,17,19,24)(6,7,11,18,20,23), (1,15,10)(2,16,9)(3,21,12)(4,22,11)(5,19,14)(6,20,13)(7,24,18)(8,23,17)
184	96	(1,11,23,13)(2,12,24,14)(3,18)(4,17)(5,16)(6,15)(7,19,9,21)(8,20,10,22), (1,19,17,13,10,3)(2,20,18,14,9,4)(5,23,21,15,11,8)(6,24,22,16,12,7)
187	96	(1,8,18)(2,7,17)(3,11,22)(4,12,2,1)(5,14,19)(6,13,20)(9,16,24)(10,15,23), (1,9,4,14,20,17)(2,10,3,1,3,19,18)(5,12,22,1,5,24,8)(6,11,21,16,23,7)
191	96	(1,20,13,8)(2,19,14,7)(3,23,9,5,15,11,21,17)(4,24,10,6,16,12,22,18), (1,23,19,17,13,11,7,5)(2,24,20,18,14,12,8,6)(3,10,15,22)(4,9,16,21)
194	96	(1,10,5)(2,9,6)(3,23,8)(4,24,7)(11,20,17)(12,19,18)(13,21,16)(14,22,15), (1,19,23,22)(2,20,24,21)(3,6)(4,5)(7,11,9,13)(8,12,10,14)(15,16)(17,18)
198	96	(1,3,18)(2,4,17)(5,14,16)(6,13,15)(7,21,24)(8,22,23)(9,12,19)(10,11,20), (1,23,13,11)(2,24,14,12)(3,16)(4,15)(5,7,17,19)(6,8,18,20)(9,22)(10,21)
213	144	(1,5,10,14,18,22)(2,6,9,13,17,2,1)(3,8,11,15,20,24)(4,7,12,16,19,23), (1,15,2,16)(3,6,4,5)(7,10,8,9)(11,13,12,14)(17,23,18,24)(19,22,20,21)
214	144	(1,3)(2,4)(5,23)(6,24)(7,22,16,14)(8,21,15,13)(9,19,17,12)(10,20,18,11), (1,16,2,15)(3,5,4,6)(7,9,8,10)(11,14,12,13)(17,24,18,23)(19,21,20,22)
215	144	(1,8,17,23,10,15,2,7,18,24,9,16)(3,5,4,6)(11,22,12,21)(13,20,14,19), (1,12,18,4)(2,11,17,3)(5,24,14,15)(6,23,13,16)(7,21)(8,22)(9,20)(10,19)
216	144	(1,7,17,24,10,16,2,8,18,23,9,15)(3,13,4,14)(5,11,6,12)(19,22,20,21), (1,13,7,5,10,21,2,14,18,6,9,22)(3,8,19,23,11,15,4,7,20,24,12,16)
238	144	(1,8,18,24,9,15,2,7,17,23,10,16)(3,13,20,5,12,22,4,14,19,6,11,21), (1,11,9,4)(2,12,10,3)(5,24,14,7)(6,23,13,8)(15,22)(16,21)(17,20)(18,19)
239	144	(1,6,2,5)(3,24,4,23)(7,11,15,19)(8,12,16,20)(9,13,18,21)(10,14,17,22), (1,20,10,12)(2,19,9,11)(3,17,4,18)(5,15,6,16)(7,14,23,22)(8,13,24,21)
240	144	(1,16,10,23,17,7,2,15,9,24,18,8)(3,6,4,5)(11,14,12,13)(19,22,20,21), (1,20,2,19)(3,9,11,18)(4,10,12,17)(5,8,13,16)(6,7,14,15)(21,23,22,24)
241	144	(1,2)(3,4)(5,6)(7,8)(9,10)(11,12)(13,14)(15,16)(17,18)(19,20)(21,22)(23,24), (1,8,17,23,9,15)(2,7,18,24,10,16)(3,13,19,6,12,22)(4,14,20,5,11,21), (1,13)(2,14)(3,15,19,8)(4,16,20,7)(5,18,21,10)(6,17,22,9)(11,24)(12,23)
255	144	(1,6,3,24,18,21,19,8)(2,5,4,23,17,22,20,7)(9,13,12,15)(10,14,11,16), (1,11,9,20)(2,12,10,19)(3,17)(4,18)(5,8,14,24)(6,7,13,23)(15,22)(16,21)
257	144	(1,8)(2,7)(3,14,19,5)(4,13,20,6)(9,23,18,16)(10,24,17,15)(11,21)(12,22), (1,22)(2,21)(3,15,19,24)(4,16,20,23)(5,10,14,17)(6,9,13,18)(7,11)(8,12), (1,23,17,7)(2,24,18,8)(3,6,19,2,1)(4,5,20,22)(9,15)(10,1,6)(11,13)(12,14)
258	144	(1,14,2,13)(3,23,4,24)(5,18,21,10)(6,17,22,9)(7,11,15,19)(8,12,16,20), (1,20,9,12)(2,19,10,11)(3,17,4,18)(5,24,13,7)(6,23,14,8)(15,21,16,22)
259	144	(1,4,10,20)(2,3,9,19)(5,23)(6,24)(7,22,16,14)(8,21,15,13)(11,17)(12,18), (1,23,17,7)(2,24,18,8)(3,5,19,22)(4,6,20,21)(9,15)(10,16)(11,13)(12,14)
263	144	(1,8)(2,7)(3,22,1,1,6)(4,21,12,5)(9,24,17,16)(10,23,18,15)(13,20)(14,19), (1,14)(2,13)(3,16)(4,15)(5,18)(6,17)(7,20)(8,19)(9,22)(10,21)(11,24)(12,23), (1,15)(2,16)(3,13)(4,14)(5,19)(6,20)(7,17)(8,18)(9,23)(10,24)(11,21)(12,22)
267	144	(1,5)(2,6)(3,15)(4,16)(7,19)(8,20)(9,21)(10,22)(11,23)(12,24)(13,17)(14,18), (1,15,22,1,2)(2,16,21,11)(3,10,24,13)(4,9,23,14)(5,19,18,8)(6,20,17,7)
268	144	(1,4,8,13,17,20,24,5,9,12,16,21)(2,3,7,14,18,19,23,6,10,11,15,22), (1,11,9,3)(2,12,10,4)(5,23,13,7)(6,24,14,8)(15,21)(16,22)(17,19)(18,20)
273	144	(1,13,17,5)(2,14,18,6)(3,23,11,15)(4,24,12,16)(7,19)(8,20)(9,21)(10,22), (1,14,24,11)(2,13,23,12)(3,9,22,16)(4,10,21,15)(5,7,20,18)(6,8,19,17)
278	144	(1,13,12,24,10,6,19,8)(2,14,11,23,9,5,20,7)(3,16,18,22)(4,15,17,2,1), (1,18)(2,17)(3,4)(5,8)(6,7)(9,10)(11,12)(13,16)(14,15)(19,20)(21,23)(22,24)
307	192	(1,13,23,7,15,22)(2,14,24,8,16,21)(3,12,18,5,10,19)(4,11,17,6,9,20), (1,18,1,1,8,20,9)(2,17,12,7,19,10)(3,24,13,6,22,15,4,23,14,5,21,16)
308	192	(1,3,2,4)(5,8,6,7)(9,16)(10,15)(11,13)(12,14)(17,19)(18,20)(21,23)(22,24), (1,18,12,8,19,9,2,17,1,1,7,20,10)(3,24,13,6,22,15,4,23,14,5,21,16)
309	192	(1,17,16,7,20,13,2,18,15,8,19,14)(3,24,9,6,22,11,4,23,10,5,21,12), (1,18,11,7,19,10,2,17,12,8,20,9)(3,24,13,6,22,15,4,23,14,5,21,16)
310	192	(1,4,2,3)(5,8,6,7)(9,12)(10,11)(13,15)(14,16)(17,23,18,24)(19,21,20,22), (1,15,24,2,16,23)(3,10,18,4,9,17)(5,12,20,6,11,19)(7,13,22,8,14,21)
311	192	(1,3,2,4)(5,8,6,7)(9,11,10,12)(13,15,14,16)(17,23,18,24)(19,21,20,22), (1,9,20,7,12,18,2,10,19,8,11,17)(3,15,22,6,13,23,4,16,21,5,14,24)
312	192	(1,7,2,8)(3,5,4,6)(9,16,10,15)(11,14,12,13)(17,23)(18,24)(19,21)(20,22), (1,15,20)(2,16,19)(3,10,22)(4,9,21)(5,11,24)(6,12,23)(7,14,18)(8,13,17)

Nr.	Size	Generators
315	192	(1,4,5,7,2,3,6,8)(9,19)(10,20)(11,21,16,18)(12,22,15,17)(13,24,14,23), (1,12,2,11)(3,13,8,9)(4,14,7,10)(5,16)(6,15)(7,19,22,23,18,20,21,24)
316	192	(1,22,14)(2,21,13)(3,24,11)(4,23,12)(5,18,9)(6,17,10)(7,20,15)(8,19,16), (1,23,6,20)(2,24,5,19)(3,22,4,21)(7,18)(8,17)(9,12,13,15,10,11,14,16)
317	192	(1,3,2,4)(5,7,6,8)(9,22)(13,18,10,21,14,17)(11,20,15,24,12,19,16,23), (1,16,6,11,2,15,5,12)(3,14,7,9,4,13,8,10)(17,24,18,23)(19,22,20,21)
378	192	(1,10,2,9)(3,11,4,12)(5,13)(6,14)(7,16)(8,15)(17,20)(18,19)(21,24,22,23), (1,21,7,19)(2,22,8,20)(3,24,6,17)(4,23,5,18)(9,14)(10,13)(11,15,12,16)
379	192	(1,10,8,16,2,9,7,15)(3,12,5,13,4,11,6,14)(17,21,18,22)(19,23)(20,24), (1,24,14)(2,23,13)(3,22,16)(4,21,15)(5,19,10)(6,20,9)(7,18,11)(8,17,12)
389	192	(1,19,16)(2,20,15)(3,21,9)(4,22,10)(5,24,11)(6,23,12)(7,17,13)(8,18,14), (1,21,15)(2,22,16)(3,23,10)(4,24,9)(5,17,12)(6,18,11)(7,19,14)(8,20,13)
424	192	(1,3)(2,4)(5,23)(6,24)(7,9)(8,10)(15,21,17,19)(16,22,18,20), (1,10,17,2,9,18)(3,12,19,4,11,20)(5,13,22,6,14,21)(7,16,24,8,15,23)
460	192	(1,4,23,6)(2,3,24,5)(7,8)(9,10)(11,12)(13,14)(15,18)(16,17)(19,20)(21,22), (1,20,12,6,17,7)(2,19,11,5,18,8)(3,16,10,24,21,13)(4,15,9,23,22,14)
468	192	(1,10,16,23,8,18)(2,9,15,24,7,17)(3,14,19,4,13,20)(5,12,21,6,11,22), (1,15,21,23,17,19)(2,16,22,24,18,20)(3,8,13,4,7,14)(5,10,11,6,9,12)
470	192	(1,2)(3,4)(5,11,17,23)(6,12,18,24)(7,8)(9,10)(13,14)(15,16)(19,20)(21,22), (1,9,18)(2,10,17)(3,12,19)(4,11,20)(5,14,22)(6,13,21)(7,15,24)(8,16,23)
481	192	(1,14)(2,13)(3,5,9,11,15,17,21,23)(4,6,10,12,16,18,22,24)(7,20)(8,19), (1,24,21,13,12,9)(2,23,22,14,11,10)(3,19,18,15,7,6)(4,20,17,16,8,5)
483	192	(1,6)(2,5)(3,24)(4,23)(15,19)(16,20)(17,21)(18,22), (1,11,20,4,8,18,24,14,21,5,9,15)(2,12,19,3,7,17,23,13,22,6,10,16)
496	192	(1,2)(3,4)(5,6)(7,9)(8,10)(11,12)(13,14)(15,21)(16,22)(17,19)(18,20)(23,24), (1,20,13,6,16,7,23,22,12,4,18,10)(2,19,14,5,15,8,24,21,11,3,17,9)
506	192	(1,3,7,11,15,20,23,5,9,13,17,22)(2,4,8,12,16,19,24,6,10,14,18,21), (1,24)(2,23)(3,5)(4,6)(7,8)(9,10)(11,12)(13,14)(19,20)(21,22)
596	288	(1,19,6,24,9,15,2,20,5,23,10,16)(3,18,4,17)(7,13,8,14)(11,22,12,21), (1,22,6,13)(2,21,5,14)(3,24,12,16)(4,23,11,15)(7,20)(8,19)(9,17,10,18)
597	288	(1,22,9,18)(2,21,10,17)(3,16,4,15)(5,14)(6,13)(7,20,12,23)(8,19,11,24), (1,23,5,19,9,15)(2,24,6,20,10,16)(3,18,7,14,11,22)(4,17,8,13,12,21)
598	288	(1,3)(2,4)(5,11)(6,12)(7,9)(8,10)(13,20,21,16,17,24,14,19,22,15,18,23), (1,14,9,17)(2,13,10,18)(3,24)(4,23)(5,21,6,22)(7,19,12,16)(8,20,11,15)
620	288	(1,8,2,7)(3,5,4,6)(9,12,10,11)(13,24,14,23)(15,21,16,22)(17,20,18,19), (1,16,2,15)(3,18,8,21)(4,17,7,22)(5,20,10,24)(6,19,9,23)(11,13)(12,14)
622	288	(1,7,6,11,10,4,2,8,5,12,9,3)(13,19,22,16,18,24,14,20,21,15,17,23), (1,14,10,17)(2,13,9,18)(3,23,4,24)(5,22)(6,21)(7,19,11,16)(8,20,12,15)
731	384	(1,8,2,7)(3,6,4,5)(9,11)(10,12)(13,16,14,15)(17,20,18,19)(21,24)(22,23), (1,12,24,2,11,23)(3,20,2,1)(4,19,22)(5,9,15)(6,10,16)(7,17,13,8,18,14)
945	384	(3,4)(7,8)(9,16,13,11,10,15,14,12)(17,20,21,23,18,19,22,24), (1,21,9)(2,22,10)(3,23,12)(4,24,11)(5,18,13)(6,17,14)(7,19,16)(8,20,15)
992	384	(1,12,17)(2,11,18)(3,9,19)(4,10,20)(5,13,21,6,14,22)(7,15,23,8,16,24), (1,13,22)(2,14,21)(3,16,24)(4,15,23)(5,10,20)(6,9,19)(7,11,17)(8,12,18)
998	384	(1,10,19)(2,9,20)(3,12,18)(4,11,17)(5,15,24)(6,16,23)(7,13,21)(8,14,22), (1,24,15)(2,23,16)(3,22,13)(4,21,14)(5,18,12)(6,17,11)(7,20,10)(8,19,9)
1027	384	(1,8,2,7)(5,6)(9,16,10,15)(11,14,12,13)(17,22,20,23)(18,21,19,24), (1,17,12)(2,18,11)(3,24,14)(4,23,13)(5,22,15)(6,21,16)(7,20,9)(8,19,10)
1371	576	(1,14,2,13)(3,16,4,15)(5,18,6,17)(7,22)(8,21)(9,23)(10,24)(11,19)(12,20), (1,21)(2,22)(3,20,6,24)(4,19,5,23)(7,13,10,17)(8,14,9,18)(11,15)(12,16)
1392	576	(1,14,4,15)(2,13,3,16)(5,18,6,17)(7,22,11,20)(8,21,12,19)(9,23,10,24), (1,22,6,23)(2,21,5,24)(3,19)(4,20)(7,13,8,14)(9,18,11,16)(10,17,12,15)
1410	576	(1,12,6,7)(2,11,5,8)(3,9,4,10)(13,20,18,23)(14,19,17,24)(15,21,16,22), (1,14,2,13)(3,18,6,15)(4,17,5,16)(7,20,10,24)(8,19,9,23)(11,21)(12,22)
1489	576	(1,10)(2,9)(3,19)(4,20)(5,18)(6,17)(7,15)(8,16)(11,24)(12,23)(13,22)(14,21), (1,11,14,24)(2,12,13,23)(3,22,7,6)(4,21,8,5)(9,20,17,16)(10,19,18,15)
1491	576	(1,6,7,22)(2,5,8,21)(3,9,20,24)(4,10,19,23)(11,17,12,18)(13,16)(14,15), (1,17,23,16)(2,18,24,15)(5,6)(7,10,8,9)(11,21)(12,22)(13,20)(14,19)
1505	576	(1,8)(2,7)(3,9)(4,5)(10,15,19,18)(11,14,20,17)(12,13,21,16)(22,23), (1,14,22,17,7,11,4,20)(2,13,24,18,8,10,6,21)(3,15,23,16,9,12,5,19)
1506	576	(1,3)(4,5)(7,23)(8,24)(9,22)(10,21,18,13)(11,19,16,14)(12,20,17,15), (1,12,3,10)(2,11)(4,17,22,21)(5,18,24,19)(6,16,23,20)(7,15)(8,13,9,14)
1508	576	(1,11,15,7)(2,9,16,6)(3,10,14,5)(4,12,13,8)(17,23,18,24)(19,22)(20,21), (1,12,2,11)(3,9)(4,10)(5,15,17,24,8,13,19,21)(6,14,18,22,7,16,20,23)
1633	768	(1,4)(2,3)(5,6)(7,8)(9,12)(10,11)(17,19)(18,20)(21,24)(22,23), (1,17,8,22,9,16,2,18,7,21,10,15)(3,20,5,23,12,13)(4,19,6,24,11,14)
1634	768	(1,9,5)(2,10,6)(3,12,7)(4,11,8)(3,21,18)(14,22,17)(15,24,20)(16,23,19), (1,14,12,22,6,19,2,13,11,21,5,20)(3,16,9,24,8,18)(4,15,10,23,7,17)
2128	768	(1,16,17)(2,15,18)(3,10,21)(4,9,22)(5,12,23)(6,11,24)(7,14,19)(8,13,20), (1,24,14,2,23,13)(3,17,9,4,18,10)(5,19,12,6,20,11)(7,21,16,8,22,15)
2129	768	(1,3,7,6,2,4,8,5)(9,11,10,12)(17,24)(18,23)(19,22)(20,21), (1,15,22)(2,16,21)(3,12,20)(4,11,19)(5,9,17)(6,10,18)(7,13,24)(8,14,23)
2130	768	(1,14,17)(2,13,18)(3,11,21)(4,12,22)(5,10,23)(6,9,24)(7,15,19)(8,16,20), (1,22,16)(2,21,15)(3,19,11)(4,20,12)(5,18,9)(6,17,10)(7,24,13)(8,23,14)

Nr.	Size	Generators
2788	1152	(1,15,5,19,21,24,13,3,17,2,16,6,20,22,23,14,4,18)(7,9,12,8,10,11), (1,21,12)(2,22,11)(3,24,8,9,18,14,15,6,19)(4,23,7,10,17,13,1,6,5,20)
2801	1152	(3,11,6,14)(4,12,5,13)(7,18)(8,17)(9,16)(10,15)(19,22)(20,21), (1,4,24,5)(2,3,23,6)(7,19,15,11,10,22,18,14)(8,20,16,12,9,21,17,13), (1,19,16,11,24,22,17,14)(2,20,15,12,23,21,18,13)(3,8,6,9)(4,7,5,10)
2808	1152	(1,6,23,4)(2,5,24,3)(7,11,10,13)(8,12,9,14)(15,19)(16,20)(17,22)(18,21), (1,19,17,14,23,21,16,12)(2,20,18,13,24,22,15,11)(3,10,5,7)(4,9,6,8)
2814	1152	(1,12)(2,11)(3,16,21,10)(4,15,22,9)(5,14)(6,13)(7,24)(8,23)(17,20)(18,19), (1,17,4)(2,18,3)(5,16,19,23,22,13,11,10,7)(6,15,20,24,21,14,12,9,8)
2898	1296	(7,15,23)(8,16,24), (1,2)(3,20)(4,19)(5,6)(7,16)(8,15)(9,10)(11,12)(13,14)(17,18)(21,22)(23,24), (1,14)(2,13)(3,15,19,7)(4,16,20,8)(5,18,21,10)(6,17,22,9)(11,12,23)(12,24), (1,23)(2,24)(3,6)(4,5)(7,9)(8,10)(11,14)(12,13)(15,17)(16,18)(19,22)(20,21)
2901	1296	(1,10)(2,9)(3,12,19,4,11,20)(5,14)(6,13)(7,16,23,8,15,24)(17,18)(21,22), (1,24,6,3)(2,23,5,4)(7,13,12,18,15,21,20,10)(8,14,11,17,16,22,19,9)
2902	1296	(1,5,17,21,9,13)(2,6,18,22,10,14)(3,16)(4,15)(7,20)(8,19)(11,24)(12,23), (1,15)(2,16)(3,12)(4,11)(5,14,21,6,13,22)(7,17)(8,18)(9,23)(10,24)(19,20)
2928	1296	(1,8,5,15,2,9,6,13)(3,7,4,14)(10,24,18,20,12,22,17,21)(11,23,16,19), (1,18,5,11)(2,16,4,12,3,17,6,10)(7,21,15,24,8,19,14,22)(9,20,13,23)
2937	1296	(1,4,8,10,3,6,9,11)(2,5,7,12)(13,17,20,23)(14,18,19,22,15,16,21,24), (1,22,11,19,8,16,5,13)(2,23,12,20,9,18,4,15,3,24,10,21,7,17,6,14)
2939	1296	(1,4,7,10)(2,5,9,12,3,6,8,11)(13,16,20,23,14,18,19,24)(15,17,21,22), (1,19,9,13,3,20,7,14)(2,21,8,15)(4,24,12,16,5,23,11,18)(6,22,10,17)
2941	1296	(1,7)(2,9,3,8)(4,10)(5,12,6,11)(13,20,15,21)(14,19)(16,22,18,23)(17,24), (1,10)(2,11,3,12)(4,7)(5,9,6,8)(13,17,15,18)(14,16)(19,24,20,22)(21,23), (1,22,2,23,3,24)(4,14,6,13,5,15)(7,18,8,17,9,16)(10,20)(11,21)(12,19)
2943	1296	(1,10,7,4)(2,12,8,5,3,11,9,6)(13,24,21,18)(14,22,19,17,15,23,20,16), (1,17)(2,16,3,18)(4,13)(5,14,6,15)(7,23)(8,24,9,22)(10,20)(11,19,12,21)
2944	1296	(1,5,8,11)(2,6,7,10,3,4,9,12)(13,16,19,22)(14,18,21,23,15,17,20,24), (1,16)(2,17)(3,18)(4,13)(5,15)(6,14)(7,22)(8,24)(9,23)(10,19)(11,20)(12,21)
2946	1296	(1,16)(2,17,3,18)(4,20)(5,21,6,19)(7,15)(8,14,9,13)(10,24)(11,23,12,22), (1,23,4,15,3,22,5,14)(2,24,6,13)(7,19,12,17,9,20,11,16)(8,21,10,18)
3075	1536	(1,13)(2,14)(3,16,4,15)(5,19,6,20)(7,17)(8,18)(9,23)(10,24)(11,21,12,22), (1,21,5,15,11,17,2,22,6,16,12,18)(3,24,8,13,10,20)(4,23,7,14,9,19)
3098	1536	(1,8,9)(2,7,10)(3,5,11,4,6,12)(13,21,18,14,22,17)(15,23,19)(16,24,20), (1,21,3,23,2,22,4,24)(5,15)(6,16)(7,13)(8,14)(9,19,11,17)(10,20,12,18)
5077	2304	(1,10,21)(2,9,22)(3,11,18,5,15,19,7,13,23)(4,12,17,6,16,20,8,14,24), (1,19,11)(2,20,12)(3,21,10,7,24,16,5,17,14)(4,22,9,8,23,15,6,18,13)
5078	2304	(1,15,17,7,12,20,6,9,24)(2,16,18,8,11,19,5,10,23)(3,14,21)(4,13,22), (1,23,13,8,17,11,3,21,10)(2,24,14,7,18,12,4,22,9)(5,19,16)(6,20,15)
5268	2592	(1,12,14,8)(2,11,13,7)(3,21,23,10,19,5,15,18)(4,22,24,9,20,6,16,17), (1,19,6,15,17,3,14,7)(2,20,5,16,18,4,13,8)(9,11,22,23)(10,12,21,24)
5275	2592	(1,18,9,2,17,10)(3,4)(5,22)(6,21)(7,16,23,8,15,24)(11,20)(12,19)(13,14), (1,20,13,7,17,12,5,15,9,4,21,23)(2,19,14,8,18,11,6,16,10,3,22,24)
5276	2592	(1,11,9,19)(2,12,10,20)(3,17,4,18)(5,24,13,16)(6,23,14,15)(7,21,8,22), (1,15,9,7,17,24,2,16,10,8,18,23)(3,6,19,13)(4,5,20,14)(11,21)(12,22)
5277	2592	(1,3,2,4)(5,24,13,16)(6,23,14,15)(7,21,8,22)(9,11,17,19)(10,12,18,20), (1,5,9,13)(2,6,10,14)(3,8,12,24,19,15)(4,7,11,23,20,16)(17,21,18,22)
5278	2592	(1,11,9,19,17,3)(2,12,10,20,18,4)(5,7,21,15,13,23)(6,8,22,16,14,24), (1,16,10,23)(2,15,9,24)(3,13,12,22,19,5,4,14,11,21,20,6)(7,17,8,18)
5279	2592	(1,4,9,12,17,20)(2,3,10,11,18,19)(5,16,13,24,21,8)(6,15,14,23,22,7), (1,22,2,21)(3,24)(4,23)(5,9,6,10)(7,20,15,12)(8,19,16,11)(13,17,14,18)
5280	2592	(1,12,9,4,17,20)(2,11,10,3,18,19)(5,24,21,16,13,8)(6,23,22,15,14,7), (1,24,2,23)(3,6,4,5)(7,9,8,10)(11,22,20,13)(12,21,19,14)(15,17,16,18)
5281	2592	(1,7,22,4,9,15,14,20,17,23,6,12)(2,8,21,3,10,16,13,19,18,24,5,11), (1,8,17,16)(2,7,18,15)(3,6,19,14)(4,5,20,13)(9,24)(10,23)(11,22)(12,21)
5289	2592	(1,10,17,2,9,18)(3,23,11,15)(4,24,12,16)(5,6)(7,19)(8,20)(13,14)(21,22), (1,16,14,19)(2,15,13,20)(3,17,8,6,11,9,24,22)(4,18,7,5,12,10,23,21)
5295	2592	(1,10)(2,11,3,12)(4,7)(5,9,6,8)(13,17)(14,18,15,16)(19,24,21,22)(20,23), (1,16,4,21,2,18,6,20)(3,17,5,19)(7,23,11,13,8,22,12,15)(9,24,10,14)
5299	2592	(1,11,7,4,2,12,8,6)(3,10,9,5)(13,23,19,17,15,24,21,16)(14,22,20,18), (1,19,8,15,3,20,9,14)(2,21,7,13)(4,16,10,22,6,17,11,23)(5,18,12,24)
5509	3072	(1,9,19)(2,10,20)(3,11,18)(4,12,17)(5,13,23)(6,14,24)(7,15,21)(8,16,22), (1,17,10,8,24,16,2,18,9,7,23,15)(3,19,11,5,21,14,4,20,12,6,22,13)
5535	3072	(1,12,20,8,13,22)(2,11,19,7,14,21)(3,9,18,6,15,23)(4,10,17,5,16,24), (1,20,10,2,19,9)(3,17,11,4,18,12)(5,24,13,6,23,14)(7,22,16,8,21,15)
5693	3072	(1,12,20,2,11,19)(3,10,18)(4,9,17)(5,14,23)(6,13,24)(7,15,22,8,16,21), (1,22,14)(2,21,13)(3,24,16)(4,23,15)(5,20,10)(6,19,9)(7,18,11)(8,17,12)
5872	3072	(1,11,19,2,12,20)(3,10,18,4,9,17)(5,13,21,6,14,22)(7,15,23,8,16,24), (1,21,13,3,24,15)(2,22,14,4,23,16)(5,18,11,8,20,10)(6,17,12,7,19,9)
5873	3072	(1,6)(2,5)(3,8,4,7)(9,10)(13,16)(14,15)(17,23,19,22)(18,24,20,21), (1,18,14,4,20,15,2,17,13,3,19,16)(5,22,9,7,23,12,6,21,10,8,24,11)

Nr.	Size	Generators
7443	4608	(1,12,22,7,10,19,5,15,18)(2,11,21,8,9,20,6,16,17)(3,13,23)(4,14,24), (1,19,11,8,24,16,3,21,9)(2,20,12,7,23,15,4,22,10)(5,17,13)(6,18,14)
7444	4608	(1,19,10,4,22,12,5,18,16)(2,20,9,3,21,11,6,17,15)(7,24,13)(8,23,14), (1,22,9,4,24,13,6,18,11)(2,21,10,3,23,14,5,17,12)(7,20,15)(8,19,16)
7445	4608	(1,9,17,8,13,19,6,16,24,2,10,18,7,14,20,5,15,23)(3,12,22,4,11,21), (1,22,15,5,24,10,7,17,11)(2,21,16,6,23,9,8,18,12)(3,19,14)(4,20,13)
7446	4608	(1,13,24,2,14,23)(3,12,22,6,10,19,7,16,18,4,11,21,5,9,20,8,15,17), (1,15,21,6,13,23,3,11,19)(2,16,22,5,14,24,4,12,20)(7,10,18)(8,9,17)
7447	4608	(1,16,20,8,11,17,5,10,21)(2,15,19,7,12,18,6,9,22)(3,14,23)(4,13,24), (1,19,12,7,17,9,4,24,13,2,20,11,8,18,10,3,23,14)(5,21,15,6,22,16)
7448	4608	(1,9,22,5,15,20,4,12,17)(2,10,21,6,16,19,3,11,18)(7,13,24)(8,14,23), (1,14,24,2,13,23)(3,12,22,6,9,19,8,15,17,4,11,21,5,10,20,7,16,18)
7688	5184	(1,5,9,22)(2,6,10,21)(3,16,12,23,20,7,4,15,11,24,19,8)(13,18)(14,17), (1,15,10,7)(2,16,9,8)(3,22)(4,21)(5,11)(6,12)(13,20)(14,19)(17,24,18,23)
7690	5184	(1,21,10,5)(2,22,9,6)(3,15,20,8,11,23)(4,16,19,7,12,24)(13,18,14,17), (1,24,2,23)(3,5)(4,6)(7,10,15,18)(8,9,16,17)(11,13)(12,14)(19,21)(20,22)
7692	5184	(1,12,10,20,18,4,2,11,9,19,17,3)(5,15,6,16)(7,13,8,14)(21,24,22,23), (1,14,2,13)(3,23,20,15)(4,24,19,16)(5,18,6,17)(7,12)(8,11)(9,21,10,22)
7694	5184	(1,13)(2,14)(3,16)(4,15)(5,18,22,9)(6,17,21,10)(7,20)(8,19)(11,24)(12,23), (1,24)(2,23)(3,14)(4,13)(5,19)(6,20)(7,9,16,18)(8,10,15,17)(11,21)(12,22)
7695	5184	(1,5,9,13,18,22)(2,6,10,14,17,21)(3,24)(7,20,16,11)(8,19,15,12), (1,8)(2,7)(3,14,20,21)(4,13,19,22)(5,12)(6,11)(9,23)(10,24)(15,18)(16,17), (1,24,9,16,18,7)(2,23,20,15,17,8)(3,13)(4,14)(5,20,22,11)(6,19,21,12)
7696	5184	(1,8,9,23)(2,7,10,24)(3,6)(4,5)(11,21)(12,22)(13,19)(14,20)(15,18)(16,17), (1,11,10,19,18,3,2,12,9,20,17,4)(5,8,14,24,22,15,6,7,13,23,21,16)
7697	5184	(1,4,10,11,18,19,2,3,9,12,17,20)(5,16,21,23,13,7,6,15,22,24,14,8), (1,7,10,23)(2,8,9,24)(3,6,12,22,20,14,4,5,11,21,19,13)(15,18,16,17)
7729	5184	(1,4,9,20)(2,3,10,19)(5,7,13,15)(6,8,14,16)(11,18)(12,17)(21,23)(22,24), (1,5)(2,6)(3,24)(4,23)(7,20,15,12)(8,19,16,11)(9,13,17,21)(10,14,18,22), (1,10,17,2,9,18)(3,12,19,4,11,20)(5,6)(7,16,23,8,15,24)(13,22)(14,21)
7731	5184	(1,12,22,7,9,4,14,15)(2,11,21,8,10,3,13,16)(5,24,18,19)(6,23,17,20), (1,13)(2,14)(3,20,11,4,19,12)(5,17,21,9)(6,18,22,10)(7,16)(8,15)(23,24)
7737	5184	(1,10,17,2,9,18)(3,7,11,23)(4,8,12,24)(5,14,21,6,13,22)(15,19)(16,20), (1,24,9,8,17,16)(2,23,10,7,18,15)(3,21,1,1,5)(4,22,12,6)(13,19)(14,20)
7754	5184	(1,6,17,14,9,22)(2,5,18,13,10,21)(3,15,11,7)(4,16,12,8)(19,23)(20,24), (1,15,13,20,17,7,21,1,2)(2,16,14,19,18,8,22,11)(3,10,24,6)(4,9,23,5)
7882	6144	(1,17,15,4,19,14,2,18,16,3,20,13)(5,22,10,8,23,12)(6,21,9,7,24,11), (1,23,15,3,22,14)(2,24,1,6,4,21,13)(5,20,9,7,17,11,6,19,10,8,18,12)
7905	6144	(1,15,20,8,12,21,2,16,19,7,11,22)(3,14,17,6,9,23,4,13,18,5,10,24), (1,22,10,8,19,14,2,21,9,7)(20,13)(3,23,11,5,17,16,4,24,12,6,18,15)
9630	6912	(1,6,18,13)(2,7,20,15)(3,5,19,16)(4,8,17,14)(9,24,10,21)(11,23,12,22), (1,11,2,9)(3,10,4,12)(5,22,8,24)(6,23,7,21)(13,16)(14,15)
9853	9216	(1,12,4,9,2,11,3,10)(5,8)(6,7)(13,18,16,19,14,17,1,5,20)(21,24)(22,23), (1,24,11,17,2,23,12,1,8)(3,21,9,20,4,22,10,19)(5,13)(6,14)(7,16,8,15)
9860	9216	(13,21,17)(14,22,18)(15,23,19)(16,24,20), (1,14,9,23,2,13,10,24)(3,16,12,21,4,15,11,22)(5,20,6,19)(7,18,8,17)
9865	9216	(1,6,12)(2,5,11)(3,8,9)(4,7,10)(13,23,18)(14,24,17)(15,22,19)(16,21,20), (1,14,5,23,3,16,7,22,2,13,6,24,4,15,8,21)(9,20,12,17,10,19,11,18)
9867	9216	(1,14,10,22,4,15,11,23,2,13,9,21,3,16,12,24)(5,17,8,19,6,18,7,20), (1,14,5,24,3,16,7,21,2,13,6,23,4,15,8,22)(9,19,11,17,10,20,12,18)
10036	10368	(1,11,9,4,6,8,2,12,10,3,5,7)(13,24)(14,23)(15,22)(16,21)(17,19)(18,20), (1,18,9,13,6,22,2,17,10,14,5,21)(3,15,4,1,6)(7,19,11,23)(8,20,1,2,24)
10162	10368	(1,5,7,10,3,6,8,12)(2,4,9,11)(13,16,15,18)(14,17)(19,24)(20,23,21,22), (1,20,2,21,3,19)(4,16)(5,17)(6,18)(7,15,9,14,8,13)(10,24,11,23,12,22)
10163	10368	(1,15,9,19,3,14,7,2,1,2,13,8,20)(4,22)(5,24,6,23)(10,17,11,16,12,18), (1,22,7,18,2,24,8,16,3,23,9,17)(4,14,5,13,6,15)(10,20,12,2,1)(11,19)
10283	12288	(1,5)(2,6)(3,7)(4,8)(9,14)(10,13)(11,15,12,16)(17,18)(19,20)(23,24), (1,21,12,8,24,9,2,22,1,1,7,23,10)(3,19,13,6,18,15)(4,20,14,5,17,1,6)
12266	18432	(1,12,13,24,3,7,1,6,22)(2,11,14,23,4,8,15,21)(5,9,17,19)(6,10,18,20), (1,14,5,17,2,13,6,18)(3,15,4,1,6)(7,24,12,20)(8,23,11,19)(9,21)(10,22)
12269	18432	(1,11,3,7,2,12,4,8)(5,10,6,9)(13,22,16,24)(14,21,15,23)(17,20)(18,19), (1,15,3,18,2,16,4,17)(5,14,6,13)(7,19,10,23,8,20,9,24)(11,21,12,22)
20212	419904	(1,10,6,7,2,11,5,8)(3,12,4,9)(13,21,17,24,15,19,18,22)(14,20,16,23), (1,14,2,13)(3,15)(4,18,6,17)(5,16)(7,24,9,22,8,23)(10,19)(11,20)(12,21)
20218	419904	(1,4,3,6)(2,5)(7,11)(8,10,9,12)(13,17,15,16)(14,18)(19,24)(20,22,21,23), (1,24,9,15,3,22,8,14,2,23,7,13)(4,21,10,17,5,20,11,16,6,19,12,18)
20224	419904	(1,5,3,6)(2,4)(7,12,9,11)(8,10)(13,18)(14,17,15,16)(19,23,20,22)(21,24), (1,12,3,10,2,11)(4,7,5,8,6,9)(13,21)(14,20)(15,19)(16,22)(17,24)(18,23), (1,21,2,19)(3,20)(4,22)(5,23,6,24)(7,16,9,17,8,18)(10,15)(11,13)(12,14)

Nr.	Size	Generators
20227	419904	(1,7,3,8,2,9)(4,12)(5,11)(6,10)(13,23,15,22)(14,24)(16,20)(17,19,18,21), (1,11,3,10,2,12)(4,8,6,9,5,7)(13,21,14,20)(15,19)(16,24)(17,23,18,22), (1,22,2,24,3,23)(4,19,6,21,5,20)(7,14,8,13,9,15)(10,18)(11,17)(12,16)
20230	419904	(1,8,4,11,2,9,6,10)(3,7,5,12)(13,20,16,23,15,19,17,22)(14,21,18,24), (1,23)(2,24,3,22)(4,21,6,19)(5,20)(7,17,8,16,9,18)(10,13,11,15,12,14)
20235	419904	(1,5)(2,4,3,6)(7,1,0,8,12)(9,11)(13,20)(14,2,1,5,19)(16,24)(17,23,18,22), (1,19)(2,20)(3,21)(4,24,6,23,5,22)(7,1,6,8,17)(9,18)(10,14,11,15)(12,13)
20237	419904	(1,5)(2,4,3,6)(7,1,0)(8,12,9,11)(13,19)(14,21,15,20)(16,22,17,23)(18,24), (1,16,3,18,2,17)(4,13,5,15,6,14)(7,20,9,21)(8,19)(10,23)(11,22,12,24)
20244	419904	(1,11,4,8,3,10,5,9)(2,12,6,7)(13,20,17,22,15,21,18,24)(14,19,16,23), (1,17,4,14,3,18,6,15)(2,16,5,13)(7,24,11,20)(8,23,12,21,9,22,10,19)
20656	663552	(1,10,2,9)(3,8,6,12,4,7,5,11)(13,23,15,20,18,21)(14,24,16,19,17,22), (1,17)(2,18)(3,14,6,15)(4,13,5,16)(7,23,10,22,8,24,9,21)(11,19,12,20)
21163	839808	(1,10,7,6,3,11,9,4)(2,12,8,5)(13,22,15,23,14,24)(16,20)(17,19)(18,21), (1,22,9,18,3,24,8,17,2,23,7,16)(4,19,5,20)(6,21)(10,13)(11,15)(12,14)
21167	839808	(1,14,9,19,3,15,8,20,2,13,7,21)(4,24,5,22)(6,23)(10,18,11,16,12,17), (1,23,3,22,2,24)(4,19,12,14,6,21,10,13,5,20,11,15)(7,17,8,18)(9,16)
21168	839808	(1,12,9,5,3,11,7,4)(2,10,8,6)(13,22,19,16)(14,24,20,18,15,23,21,17), (1,18,3,16,2,17)(4,14,11,20,5,13,10,21,6,15,12,19)(7,24,9,23)(8,22)
21177	839808	(1,12)(2,11)(3,10)(4,9,5,7,6,8)(13,24,15,23)(14,22)(16,20,17,19)(18,21), (1,19,3,20)(2,21)(4,24,6,22,5,23)(7,13,9,14,8,15)(10,18,11,17)(12,16), (1,22)(2,23,3,24)(4,21)(5,19,6,20)(7,1,8,9,16,8,17)(10,13)(11,15)(12,14)
21178	839808	(1,7,2,8)(3,9)(4,11,5,12)(6,10)(13,21,14,19,15,20)(16,22,18,23,17,24), (1,14)(2,15,3,13)(4,17,5,18)(6,16)(7,21)(8,20,9,19)(10,22,12,23)(11,24), (1,18,2,16,3,17)(4,14,6,13)(5,15)(7,23,9,22,8,24)(10,19,11,21)(12,20)
21180	839808	(1,6,2,4,3,5)(7,12,9,11)(8,10)(13,17)(14,16)(15,18)(19,23,21,22)(20,24), (1,12,2,11)(3,10)(4,8)(5,9)(6,7)(13,23,14,22,15,24)(16,21,1,7,20)(18,19), (1,22)(2,23)(3,24)(4,19,5,21,6,20)(7,1,6,8,18)(9,17)(10,14,12,15)(11,13)
21183	839808	(1,9,2,8,3,7)(4,10,6,11)(5,12)(13,21,14,20,15,19)(16,23,17,24)(18,22), (1,14)(2,15)(3,13)(4,18,6,17,5,16)(7,21,8,19)(9,20)(10,22,11,24)(12,23), (1,22,2,24)(3,23)(4,21,6,20)(5,19)(7,17,9,18,8,16)(10,15,11,13,12,14)
21809	1327104	(1,13,7,19,4,14,5,18)(2,16,8,20,3,15,6,17)(9,22,10,21,12,24,11,23), (1,21,3,22,4,23,2,24)(5,18,12,13,8,19,9,14)(6,17,10,16,7,20,11,15)
21987	1679616	(1,16,2,18,3,17)(4,14,6,13)(5,15)(7,19,9,21)(8,20)(10,23,12,24,11,22), (1,23,6,20)(2,24,5,19)(3,22,4,21)(7,18,12,14,8,17,10,13,9,16,11,15)
21988	1679616	(1,14)(2,15,3,13)(4,18,6,16,5,17)(7,24,8,23)(9,22)(10,19,11,21,12,20), (1,20,5,22,3,19,4,24,2,21,6,23)(7,13,11,17,9,14,12,16,8,15,10,18)
21989	1679616	(1,8,6,10)(2,7,5,12,3,9,4,11)(13,22,18,19,15,23,17,20)(14,24,16,21), (1,14)(2,15,3,13)(4,18,6,17,5,16)(7,23)(8,22,9,24)(10,19,11,21,12,20)
21990	1679616	(1,6)(2,5)(3,4)(7,10,9,11,8,12)(13,18,15,17)(14,16)(19,23,21,24)(20,22), (1,18,9,21,3,17,7,19,2,16,8,20)(4,15,11,22,6,13,10,24)(5,14,12,23)
21991	1679616	(1,12)(2,10)(3,11)(4,8,5,7)(6,9)(13,21)(14,19,15,20)(16,24)(17,22)(18,23), (1,18,9,20)(2,17,8,21)(3,16,7,19)(4,14,12,22,6,13,10,24)(5,15,11,23)
22004	1679616	(1,13)(2,14)(3,15)(4,17,6,16)(5,18)(7,23,9,22,8,24)(10,21,12,20)(11,19), (1,22,2,24,3,23)(4,21)(5,20,6,19)(7,17)(8,16,9,18)(10,14,12,13,11,15)
22005	1679616	(1,9,6,11,2,7,5,12,3,8,4,10)(13,19,17,24)(14,21,18,23)(15,20,16,22), (1,17,3,1,6)(2,18)(4,15,5,13,6,14)(7,19,9,20,8,21)(10,23,11,24)(12,22)
22006	1679616	(1,10,3,11,2,12)(4,8,6,9,5,7)(13,16)(14,17,15,18)(19,24,20,22,21,23), (1,20,2,19,3,21)(4,22,5,24)(6,23)(7,16,8,18,9,17)(10,14)(11,15,12,13)
22007	1679616	(1,14,9,24,3,15,8,23)(2,13,7,22)(4,16,12,21,6,17,10,20,5,18,11,19), (1,18)(2,16)(3,17)(4,13)(5,15)(6,14)(7,19,8,20)(9,21)(10,24)(11,23,12,22)
22010	1679616	(1,16,4,13,3,18,6,14)(2,17,5,15)(7,23,10,19,8,22,11,21)(9,24,12,20), (1,22,6,19,3,24,5,20,2,23,4,21)(7,15,12,18)(8,14,10,16)(9,13,11,17)
22012	1679616	(1,16,4,15,3,17,6,13,2,18,5,14)(7,23,1,0,21,9,22,12,20,8,24,11,19), (1,20,6,23,3,19,4,22,2,21,5,24)(7,1,8,10,14,8,17,12,15,9,16,11,13)
22238	1679616	(1,11,4,9,2,12,5,7)(3,10,6,8)(13,19,14,21)(15,20)(16,24,17,23)(18,22), (1,21,6,22)(2,20,4,24)(3,19,5,23)(7,16,8,18)(9,17)(10,13)(11,14)(12,15)
22240	1679616	(1,9,5,12,3,7,4,11)(2,8,6,10)(13,20)(14,19,15,21)(16,22)(17,24,18,23), (1,18,4,13)(2,16,6,15,3,17,5,14)(7,22,10,21,9,23,11,19)(8,24,12,20)
22241	1679616	(1,10)(2,11)(3,12)(4,8,6,7,5,9)(13,19,17,24,15,20,18,23)(14,21,16,22), (1,14,2,15)(3,13)(4,18,6,16)(5,17)(7,19,8,21)(9,20)(10,24,11,23)(12,22)
22242	1679616	(1,16,4,13,2,17,5,14,3,18,6,15)(7,20,10,22,9,19,12,23,8,21,11,24), (1,19,4,23,2,20,5,24,3,21,6,22)(7,1,6,9,17)(8,18)(10,15)(11,14,12,13)
22243	1679616	(1,10,2,12)(3,11)(4,8,6,9,5,7)(13,19,18,22,15,20,17,23)(14,21,16,24), (1,16,6,15,3,18,4,14,2,17,5,13)(7,24,11,20)(8,23,10,21)(9,22,12,19)
22244	1679616	(1,15)(2,13,3,14)(4,18)(5,16,6,17)(7,21,9,19,8,20)(10,22,12,23,11,24), (1,21,4,24,3,20,6,22)(2,19,5,23)(7,17,9,18)(8,16)(10,14,12,15,11,13)

Nr.	Size	Generators
22245	1679616	(1,14,2,15,3,13)(4,17,6,16,5,18)(7,23,9,24,8,22)(10,20,12,21,11,19), (1,22,4,20,3,24,5,21)(2,23,6,19)(7,18,9,17,8,16)(10,13)(11,15,12,14)
23148	3981312	(1,10,4,11)(2,12,3,9)(5,7,6,8)(13,21,14,24)(15,23,16,22)(17,20,18,19), (1,23,12,17,2,21,9,18,3,22,10,20)(4,24,11,19)(5,14)(6,16,8,15)(7,13)
23149	3981312	(1,6,12,4,8,11)(2,5,10,3,7,9)(13,23,20)(14,24,18,15,21,17,16,22,19), (1,18,12,23,4,17,11,22,3,20,10,21)(2,19,9,24)(5,15,6,16,7,13,8,14)
23500	6718464	(1,15,2,13)(3,14)(4,16,5,17,6,18)(7,20)(8,19)(9,21)(10,24)(11,22,12,23), (1,19,2,20,3,21)(4,23)(5,24,6,22)(7,18,12,13,9,16,11,14)(8,17,10,15)
23502	6718464	(1,11,6,8,3,12,5,7)(2,10,4,9)(13,19,14,20)(15,21)(16,24)(17,23)(18,22), (1,16,4,15,3,17,5,14)(2,18,6,13)(7,24,11,19)(8,23,10,20,9,22,12,21)
23504	6718464	(1,7,5,10,3,9,4,12,2,8,6,11)(13,21)(14,20,15,19)(16,23,17,22)(18,24), (1,14,3,13,2,15)(4,17)(5,18,6,16)(7,24)(8,23,9,22)(10,20,12,19,11,21)
23506	6718464	(1,14,6,16)(2,15,4,18)(3,13,5,17)(7,24,10,19)(8,22,11,21)(9,23,12,20), (1,23)(2,22)(3,24)(4,21,5,20)(6,19)(7,14,10,16,8,15,11,17,9,13,12,18)
23508	6718464	(1,11)(2,12)(3,10)(4,8,6,7,5,9)(13,23,17,19)(14,22,18,20,15,24,16,21), (1,13,5,16,3,15,6,18,2,14,4,17)(7,19,10,22)(8,20,12,23)(9,21,11,24)
23510	6718464	(1,18,4,13)(2,16,5,15)(3,17,6,14)(7,23,11,20,8,24,12,19,9,22,10,21), (1,22,6,20)(2,23,5,21)(3,24,4,19)(7,13,8,14,9,15)(10,18,12,16)(11,17)
23649	6718464	(1,6,7,22,3,5,8,24)(2,4,9,23)(10,13,18,21,11,15,17,20,12,14,16,19), (1,19,2,21)(3,20)(4,12,6,10,5,11)(7,15)(8,14,9,13)(16,23)(17,22,18,24)
23651	6718464	(1,7,2,8,3,9)(4,23,6,22)(5,24)(10,18,11,17,12,16)(13,21)(14,20,15,19), (1,15,2,13,3,14)(4,17)(5,16,6,18)(7,20)(8,19,9,21)(10,23,12,22,11,24),
23654	6718464	(1,24,3,23,2,22)(4,8,6,7)(5,9)(10,14,12,13)(11,15)(16,20)(17,21,18,19)
23655	6718464	(1,4,9,22)(2,5,8,24,3,6,7,23)(10,14,17,19,12,15,18,20)(11,13,16,21), (1,12,6,20,5,19)(7,17,9,16)(8,18)(13,23,14,22)(15,24)
23990	13436928	(1,5,9,23,2,6,7,24,3,4,8,22)(10,13,18,19)(11,15,16,21,12,14,17,20), (1,10,8,16,2,12,9,18,3,11,7,17)(4,19,23,14)(5,20,24,13,6,21,22,15)

Degree 26:

Nr.	Size	Generators
4	52	(1,3,5,7,9,12,14,16,18,20,22,24,25)(2,4,6,8,10,11,13,15,17,19,21,23,26), (1,10,24,15)(2,9,23,16)(3,19,22,6)(4,20,21,5)(7,13,18,11)(8,14,17,12)(25,26)
20	1352	(1,15,9,20,8,21,13,16)(2,14,4,25,7,22,5,24)(3,26,12,17,6,23,10,19)(11,18), (1,25,12,22,2,20,4,23)(3,15,9,24,13,17,7,21)(5,18,6,26,11,14,10,19)(8,16)
<u>39</u>	5616	(1,2)(3,23)(4,24)(5,6)(7,21)(8,22)(9,11)(10,12)(13,19)(14,20)(17,18)(25,26), (1,4,5,8,9,11,13,16,18,20,21,24,25)(2,3,6,7,10,12,14,15,17,19,22,23,26)
<u>42</u>	7800	(1,21,5,9,4,2,10,16,12,18,14,25,3)(6,23,7,24,17,11,8,20,26,15,22,19,13), (1,19,26,4,17,2,6,22,18,5,21,12,16)(3,8,7,14,23,13,24,10,25,9,11,15,20)
64	53248	(1,18,8,24,14,3,20,9,25,16,6,21,12)(2,17,7,23,13,4,19,10,26,15,5,22,11), (1,24,20,16,12,8,3,26,22,17,14,9,5)(2,23,19,15,11,7,4,25,21,18,13,10,6)

Degree 27:

Nr.	Size	Generators
19	81	(1,4,25)(2,5,26)(3,6,27)(7,8,9)(10,11,12)(13,14,15)(16,17,18)(19,20,21)(22,23,24), (1,10,21)(2,11,19)(3,12,20)(4,13,24)(5,14,22)(6,15,23)(7,18,25)(8,16,26)(9,17,27)
24	81	(1,4,7,2,5,8,3,6,9)(10,13,18,11,14,16,12,15,17)(19,23,25,20,24,26,21,22,27), (1,13,23)(2,14,24)(3,15,22)(4,16,25)(5,17,26)(6,18,27)(7,10,20)(8,11,21)(9,12,19)
25	81	(1,4,7,2,5,8,3,6,9)(10,13,18,11,14,16,12,15,17)(19,23,25,20,24,26,21,22,27), (1,13,22,3,15,24,2,14,23)(4,16,27,6,18,26,5,17,25)(7,10,19,9,12,21,8,11,20)
26	81	(1,4,7,2,5,8,3,6,9)(10,13,18,11,14,16,12,15,17)(19,22,26,20,23,27,21,24,25), (1,12,25)(2,10,26)(3,11,27)(4,13,20)(5,14,21)(6,15,19)(7,16,24)(8,17,22)(9,18,23)
234	729	(1,13,22,3,15,24,2,14,23)(4,27,7)(5,25,8)(6,26,9)(10,19,17,11,20,18,12,21,16), (1,26,12,3,25,11,2,27,10)(4,17,23)(5,18,24)(6,16,22)(7,20,14,8,21,15,9,19,13)
235	729	(1,15,12,3,14,11,2,13,10)(4,21,24,6,20,23,5,19,22)(7,27,17,9,26,16,8,25,18), (1,16,23,2,17,24,3,18,22)(4,14,8,5,15,9,6,13,7)(10,25,21,11,26,19,12,27,20)
240	729	(1,4,9)(2,5,7)(3,6,8)(10,14,16)(11,15,17)(12,13,18)(19,23,26)(20,24,27)(21,22,25), (1,14,22,2,15,23,3,13,24)(4,17,25)(5,18,26)(6,16,27)(7,10,19,9,12,21,8,11,20)
242	729	(1,4,9,3,6,8,2,5,7)(10,13,16,12,15,18,11,14,17)(19,23,26,21,22,25,20,24,27), (1,24,15)(2,22,13)(3,23,14)(4,26,16,5,27,17,6,25,18)(7,20,12,9,19,11,8,21,10)
246	729	(1,13,10)(2,14,11)(3,15,12)(4,21,22)(5,19,23)(6,20,24)(7,25,18)(8,26,16)(9,27,17), (1,23,17,2,24,18,3,22,16)(4,7,14,5,8,15,6,9,13)(10,20,25,11,21,26,12,19,27)
247	729	(1,4,20,2,5,21,3,6,19)(7,12,23)(8,10,24)(9,11,22)(13,27,18,15,26,17,14,25,16), (1,25,10)(2,26,11)(3,27,12)(4,16,24,5,17,22,6,18,23)(7,21,15,9,20,14,8,19,13)
252	729	(1,12,13)(2,10,14)(3,11,15)(4,23,19)(5,24,20)(6,22,21)(7,17,25)(8,18,26)(9,16,27), (1,16,22)(2,17,23)(3,18,24)(4,13,7)(5,14,8)(6,15,9)(10,27,20)(11,25,21)(12,26,19)
253	729	(1,4,9)(2,5,7)(3,6,8)(10,15,16)(11,13,17)(12,14,18)(19,22,26)(20,23,27)(21,24,25), (1,15,22,2,13,23,3,14,24)(4,16,25)(5,17,26)(6,18,27)(7,10,19,9,12,21,8,11,20)
254	729	(1,4,9,3,6,8,2,5,7)(10,14,16,12,13,18,11,15,17)(19,22,26,21,24,25,20,23,27), (1,13,22,2,14,23,3,15,24)(4,17,26)(5,18,27)(6,16,25)(7,10,19,9,12,21,8,11,20)
981	19683	(1,4,7)(2,5,8)(3,6,9)(10,13,16,11,14,17,12,15,18)(19,23,25,21,22,27,20,24,26), (1,14,22,3,13,24,2,15,23)(4,16,25)(5,17,26)(6,18,27)(7,10,19)(8,11,20)(9,12,21)
988	19683	(1,4,7)(2,5,8)(3,6,9)(10,13,16)(11,14,17)(12,15,18)(19,23,25)(20,24,26)(21,22,27), (1,14,22,3,13,24,2,15,23)(4,17,25)(5,18,26)(6,16,27)(7,10,19)(8,11,20)(9,12,21)

Degree 28:

Nr.	Size	Generators
11	56	(3,4)(5,19)(6,20)(7,8)(9,24)(10,23)(11,26)(12,25)(13,27)(14,28)(17,18)(21,22), (1,5,9,14,18,22,26)(2,6,10,13,17,21,25)(3,7,11,16,20,24,27)(4,8,12,15,19,23,28)
20	112	(1,5,9,14,18,22,25)(2,6,10,13,17,21,26)(3,7,12,16,20,24,27)(4,8,11,15,19,23,28), (1,15)(2,16)(3,17)(4,18)(5,6)(7,21)(8,22)(9,10)(11,12)(13,14)(19,20)(23,24)(25,26)(27,28)
<u>32</u>	168	(1,13,28,18,22,6,10)(2,14,26,17,24,7,12)(3,16,25,19,23,8,11)(4,15,27,20,21,5,9), (1,14)(2,15)(3,16)(4,13)(5,28)(6,26)(7,25)(8,27)(11,12)(17,18)(19,20)(21,24)
35	196	(1,9)(2,10)(3,11)(4,12)(5,6)(7,8)(13,25)(14,26)(15,27)(16,28)(17,22)(18,21)(19,24)(20,23), (1,28,21,8)(2,27,22,7)(3,25,4,26)(5,24,18,11)(6,23,17,12)(9,20,14,15)(10,19,13,16)
<u>42</u>	336	(1,14,21,9,15,6,4)(2,13,22,10,16,5,3)(7,11,26,17,20,28,23)(8,12,25,18,19,27,24), (1,18,13,28,22,11,5,26)(2,17,14,27,21,12,6,25)(3,19,4,20)(7,9,23,16,8,10,24,15)
<u>43</u>	336	(1,4,11,6,9,18,25,8,14,16,20,22,28,24)(2,3,12,5,10,17,26,7,13,15,19,21,27,23), (1,18,3,8,28,13)(2,17,4,7,27,14)(5,16,21,19,11,10)(6,15,22,20,12,9)(23,26)(24,25)
48	392	(1,8,25,4)(2,7,26,3)(5,11,22,27)(6,12,21,28)(9,16,18,23)(10,15,17,24)(13,19)(14,20), (1,26,22,17,13,10,5,2,25,21,18,14,9,6)(3,23,15,8,28,19,12,4,24,16,7,27,20,11)
55	392	(1,7,25,11)(2,8,26,12)(3,21,15,5)(4,22,16,6)(9,27,17,19)(10,28,18,20)(13,23)(14,24), (1,24,17,8,5,20,21,4,9,16,25,28,13,12)(2,23,18,7,6,19,22,3,10,15,26,27,14,11)
56	392	(1,14,18,24,5,9,15,26)(2,11,19,28,4,12,21,22)(3,8,20,25)(6,13,16,23,7,10,17,27), (1,16,2,17)(3,18,7,15)(4,19,6,21)(5,20)(8,28,12,25)(9,22,11,24)(10,23)(13,26,14,27)
57	392	(1,12,7,8,6,11,5,14,4,10,3,13,2,9)(15,23,19,28,16,26,20,24,17,22,21,27,18,25), (1,27,4,22,7,24,3,26,6,28,2,23,5,25)(8,19,9,17,10,15,11,20,12,18,13,16,14,21)
58	392	(1,8,6,12)(2,13,5,14)(3,11,4,9)(7,10)(15,28,21,26)(16,23,20,24)(17,25,19,22)(18,27), (1,27,2,28)(3,22,7,26)(4,23,6,25)(5,24)(8,18)(9,16,14,20)(10,21,13,15)(11,19,12,17)
61	448	(1,9,28,5,16,20,22)(2,10,27,6,15,19,21)(3,11,26,7,14,18,24)(4,12,25,8,13,17,23), (1,26,15,22,9,8,17)(2,25,16,21,10,7,18)(3,27,13,24,11,5,20)(4,28,14,23,12,6,19)
66	448	(1,2)(3,17)(4,18)(5,6)(11,12)(13,28)(14,27)(15,16)(19,20)(25,26), (1,5,9,14,18,22,26)(2,6,10,13,17,21,25)(3,7,11,16,20,24,27)(4,8,12,15,19,23,28)
98	896	(1,12,6,13,10,7,4)(2,11,5,14,9,8,3)(15,19,25,28,22,17,24)(16,20,26,27,21,18,23), (1,18,2,17)(3,23,4,24)(5,28)(6,27)(7,16,8,15)(9,20)(10,19)(11,22)(12,21)(13,25,14,26)
105	896	(1,3)(2,4)(5,13,19,27)(6,14,20,28)(7,12,21,26)(8,11,22,25)(9,24)(10,23)(15,17)(16,18), (1,16)(2,15)(3,28,17,14)(4,27,18,13)(5,25,19,11)(6,26,20,12)(7,10)(8,9)(21,24)(22,23)
<u>120</u>	1092	(1,14,9,17,28,3,20)(2,13,10,18,27,4,19)(5,7,26,15,23,22,11)(6,8,25,16,24,21,12), (1,26,11,15,17,13,10)(2,25,12,16,18,14,9)(3,7,5,28,20,22,23)(4,8,6,27,19,21,24)
<u>152</u>	1344	(1,9,24)(2,10,23)(3,14,7)(4,13,8)(11,27,17)(12,28,18)(15,21,25)(16,22,26), (1,23,20,4,25,21,16)(2,24,19,3,26,22,15)(5,9,28,12,17,8,14)(6,10,27,11,18,7,13)
<u>153</u>	1344	(1,5,24)(2,6,23)(3,7)(4,8)(9,22,12,17,28,20)(10,21,11,18,27,19)(13,26,16)(14,25,15), (1,28,14,11)(2,27,13,12)(3,17,8,10)(4,18,7,9)(5,16)(6,15)(19,25,22,24)(20,26,21,23)
<u>200</u>	2184	(1,5,7,2,6,8)(3,4)(9,19,28,10,20,27)(11,14,17,12,13,18)(15,16)(21,25,23,22,26,24), (1,21,12,18,9,26,15,7,14,3,23,20,6)(2,22,11,17,10,25,16,8,13,4,24,19,5)
<u>201</u>	2184	(1,5,22,24,28,11,19,4,16,14,26,8,18,10)(2,6,21,23,27,12,20,3,15,13,25,7,17,9), (1,19,26,28,7,3,22)(2,20,25,27,8,4,21)(5,14,10,11,24,17,15)(6,13,9,12,23,18,16)
262	3584	(1,9,17,27,7,16,21)(2,10,18,28,8,15,22)(3,11,19,26,6,13,24)(4,12,20,25,5,14,23), (1,10,19,28,6,13,24)(2,9,20,27,5,14,23)(3,11,17,26,8,15,21)(4,12,18,25,7,16,22)
263	3584	(1,7,11,14,18,24,27)(2,8,12,13,17,23,28)(3,6,10,16,20,22,26)(4,5,9,15,19,21,25), (1,9,19,27,5,13,24)(2,10,20,28,6,14,23)(3,12,17,25,7,15,21)(4,11,18,26,8,16,22)
<u>371</u>	10752	(1,6,15,2,5,16)(3,7,14,4,8,13)(9,18,28)(10,17,27)(11,20,25)(12,19,26)(21,22)(23,24), (1,9,23,6)(2,10,24,5)(3,12,22,7)(4,11,21,8)(13,25,16,27,14,26,15,28)(17,20,18,19)
630	76832	(1,18,7,21,6,17,5,20,4,16,3,19,2,15)(8,22,13,28,11,27,9,26,14,25,12,24,10,23), (1,26,7,24,6,22,5,27,4,25,3,23,2,28)(8,15,13,17)(9,21,12,18)(10,20,11,19)(14,16)
1169	802816	(1,5,2,6)(3,4)(7,14)(8,13)(9,12)(10,11)(15,27,16,28)(17,26,18,25)(19,23,20,24)(21,22), (1,25,5,16)(2,26,6,15)(3,27)(4,28)(7,17,14,24)(8,18,13,23)(9,19,11,22)(10,20,12,21)
<u>795</u>	172032	(1,4)(2,3)(5,14,17,26,6,13,18,25)(7,16,20,28)(8,15,19,27)(9,22,11,23,10,21,12,24), (1,21,7,2,22,8)(3,24,5,4,23,6)(9,14,17)(10,13,18)(11,15,20)(12,16,19)(25,26)(27,28)

Degree 30:

Nr.	Size	Generators
1	30	(1,29,27,25,24,22,20,17,15,14,12,10,7,6,3,2,30,28,26,23,21,19,18,16,13,11,9,8,5,4)
2	30	(1,27,14,9,26,21,7,4,20,15)(2,28,13,10,25,22,8,3,19,16)(5,11,18,23,29,6,12,17,24,30), (1,22,12)(2,21,11)(3,24,14)(4,23,13)(5,26,16)(6,25,15)(7,28,18)(8,27,17)(9,30,19)(10,29,20)
3	30	(1,27)(2,28)(3,26)(4,25)(5,24)(6,23)(7,22)(8,21)(9,20)(10,19)(11,18)(12,17)(13,16)(14,15)(29,30), (1,10,18,26,4,12,20,28,6,14,22,29,8,16,24)(2,9,17,25,3,11,19,27,5,13,21,30,7,15,23)
4	30	(1,19,7,26,13)(2,20,8,25,14)(3,21,9,28,15)(4,22,10,27,16)(5,24,11,29,17)(6,23,12,30,18), (1,27,11,8,21,18)(2,28,12,7,22,17)(3,6,13,16,24,25)(4,5,14,15,23,26)(9,30,19,10,29,20)
6	60	(1,4,7,16)(2,3,8,15)(5,12,23,18)(6,11,24,17)(9,20)(10,19)(13,27,25,22)(14,28,26,21)(29,30), (1,28,23,19,15,11,7,3,29,25,21,17,13,9,5)(2,27,24,20,16,12,8,4,30,26,22,18,14,10,6)
7	60	(1,7,13,20,26)(2,8,14,19,25)(3,9,15,22,28)(4,10,16,21,27)(5,11,18,24,29)(6,12,17,23,30), (1,4,18,25,22,23,7,16,11,14,28,6)(2,3,17,26,21,24,8,15,12,13,27,5)(9,30,20,10,29,19)
9	60	(1,12,6,7,3)(2,11,5,8,4)(9,21,30,27,17)(10,22,29,28,18)(13,25,15,20,23)(14,26,16,19,24), (1,13,5)(2,14,6)(3,19,9)(4,20,10)(7,18,15)(8,17,16)(11,28,21)(12,27,22)(23,29,25)(24,30,26)
11	60	(1,20,29,10,17,28,7,15,25,5,14,23,4,11,21)(2,19,30,9,18,27,8,16,26,6,13,24,3,12,22), (1,2)(3,4)(5,6)(7,8)(9,10)(11,12)(13,14)(15,16)(17,18)(19,20)
<u>25</u>	120	(1,9,13,3,5)(2,10,14,4,6)(7,22,25,15,18)(8,21,26,16,17)(11,28,23,20,30)(12,27,24,19,29), (1,14,17,12)(2,13,18,11)(3,24,8,10)(4,23,7,9)(5,25)(6,26)(15,30,19,21)(16,29,20,22)(27,28)
<u>30</u>	120	(1,21,26,20,3,2,22,25,19,4)(5,27,29,7,11,6,28,30,8,12)(9,17,16,13,24,10,18,15,14,23), (1,25,5,2,26,6)(3,18,8,4,17,7)(9,19,30,10,20,29)(11,27,13,12,28,14)(15,24,22,16,23,21)
35	150	(3,10,15,21,27)(4,9,16,22,28)(5,29,23,17,11)(6,30,24,18,12), (1,18,22,8,11,27)(2,17,21,7,12,28)(3,25,24,16,14,5)(4,26,23,15,13,6)(9,20,29,10,19,30)
37	150	(1,11,22)(2,12,21)(3,13,23)(4,14,24)(5,15,26)(6,16,25)(7,17,27)(8,18,28)(9,19,30)(10,20,29), (1,4,25,10,19,15,13,21,7,28)(2,3,26,9,20,16,14,22,8,27)(5,17)(6,18)(11,12)(23,29)(24,30)
38	150	(1,12,22)(2,11,21)(3,13,24)(4,14,23)(5,15,26)(6,16,25)(7,18,27)(8,17,28)(9,20,30)(10,19,29), (1,27,8,3,14,10,20,15,25,21)(2,28,7,4,13,9,19,16,26,22)(5,30,24,17,11,6,29,23,18,12)
40	150	(1,16,5,2,15,6)(3,24,19,4,23,20)(7,22,11,8,21,12)(9,30,25,10,29,26)(13,27,18,14,28,17), (1,19,7,25,14)(2,20,8,26,13)(5,17,29,11,23)(6,18,30,12,24)
<u>45</u>	180	(1,7,15,30,18,2,8,13,28,16,3,9,14,29,17)(4,25,22,20,10,5,26,23,21,11,6,27,24,19,12), (1,8)(2,9)(3,7)(10,29)(11,30)(12,28)(13,25)(14,26)(15,27)(16,24)(17,22)(18,23)
46	180	(1,20,6,28)(2,21,5,30)(3,19,4,29)(7,22,15,27)(8,23,14,26)(9,24,13,25)(10,18,12,17)(11,16), (1,12,5,14,8,2,10,6,15,9,3,11,4,13,7)(16,25,20,30,23,18,27,19,29,22,17,26,21,28,24)
48	180	(1,26,3,25)(2,27)(4,23,6,22)(5,24)(7,20,9,19)(8,21)(10,17,12,16)(11,18)(13,29,15,28)(14,30), (1,8,15,4,11,3,7,14,6,10,2,9,13,5,12)(16,24,29,19,27,17,22,30,20,25,18,23,28,21,26)
49	180	(1,30,13,27,10,24,7,21,4,18)(2,29,15,25,11,23,9,19,5,17,3,28,14,26,12,22,8,20,6,16), (1,2,3)(4,5,6)(7,8,9)(10,11,12)(13,14,15)(16,18,17)(19,21,20)(22,24,23)(25,27,26)(28,30,29)
50	240	(7,8)(9,10)(11,12)(13,14)(15,16)(17,18)(19,20)(21,22), (1,18,21,25,15,3,12,10,19,7,6,30,27,13,23)(2,17,22,26,16,4,11,9,20,8,5,29,28,14,24)
52	240	(1,2)(3,4)(5,6)(19,20)(21,22)(23,24), (1,25,13,7,19,4,28,16,9,22,5,29,17,11,24)(2,26,14,8,20,3,27,15,10,21,6,30,18,12,23)
70	300	(1,11,27)(2,12,28)(3,13,30)(4,14,29)(5,16,21)(6,15,22)(7,18,24)(8,17,23)(9,19,26)(10,20,25), (1,7,3,9,6,2,8,4,10,5)(11,18,13,19,15,12,17,14,20,16)(21,29,28,26,24)(22,30,27,25,23)
71	300	(1,11,22)(2,12,21)(3,13,24)(4,14,23)(5,16,25)(6,15,26)(7,18,27)(8,17,28)(9,20,29)(10,19,30), (1,9,19,15)(2,10,20,16)(3,8,21,14)(4,7,22,13)(5,6)(11,18,30,24)(12,17,29,23)(25,27)(26,28)
78	300	(1,24,28,26,11,3,7,6,22,14,17,15)(2,23,27,25,12,4,8,5,21,13,18,16)(9,19,30,10,20,29), (1,25,19,13,7)(2,26,20,14,8)(5,11,17,23,29)(6,12,18,24,30)
126	600	(2,3,5,4)(7,9,10,8)(11,26)(12,29,15,28)(13,27,14,30)(16,21)(17,24,20,23)(18,22,19,25), (1,12,23)(2,14,21)(3,11,24)(4,13,22)(5,15,25)(6,30,16)(7,26,18)(8,27,20)(9,28,17)(10,29,19)
131	600	(1,2,3,4,5)(11,12,13,14,15)(16,18,20,17,19)(21,24,22,25,23)(26,30,29,28,27), (1,16,29,6,12,22,2,17,28,10,14,21,5,20,30,7,15,23,4,19,26,8,13,24)(3,18,27,9,11,25)
142	600	(1,10,15,22,19,29,7,16)(2,12,13,24,20,28,8,18)(3,11,14,23,21,30,9,17)(4,27)(5,26)(6,25), (1,3,2)(4,29,24,17,10,5,30,22,18,11,6,28,23,16,12)(7,9,8)(13,15,14)(19,21,20)(25,27,26)

Nr.	Size	Generators
143	600	(1,12,6)(2,11,7)(3,15,8)(4,14,9)(5,13,10)(16,22,30)(17,24,26)(18,21,27)(19,23,28)(20,25,29), (1,25)(2,21,4,23,5,24,3,22)(6,28,8,29,9,27,7,26)(10,30)(11,17,13,16,14,18,12,19)(15,20)
158	600	(1,30,21,10,13,18,25,4,3,29,20,12,15,17,27,6,2,28,19,11,14,16,26,5)(7,23,9,22,8,24), (1,7,15,19,25)(2,8,13,20,26)(3,9,14,21,27)(4,17,30,11,23)(5,18,28,12,24)(6,16,29,10,22)
<u>162</u>	720	(2,7,14)(3,10,6)(4,8,13)(9,15,12)(16,26,20)(17,24,19)(18,25,21)(22,30,23)(27,28,29), (1,28,6,18)(2,22,10,29)(3,17,12,20)(4,27,11,26)(5,24,13,30)(7,21)(8,16)(9,19,14,25)(15,23)
<u>171</u>	720	(1,9,13,8,2)(3,14,15,6,4)(5,12,7,11,10)(16,24,30,27,26)(17,28,29,25,19)(18,23,20,22,21), (1,23,8,21,14,26,12,25,4,30)(2,28,3,24,15,27,11,18,5,19)(6,16,9,17,13,29,7,20,10,22)
190	810	(5,25,15)(6,26,16)(9,19,29)(10,20,30), (1,28,13,9,26,22,7,4,20,15)(2,27,14,10,25,21,8,3,19,16)(5,12,18,23,29,6,11,17,24,30)
191	810	(1,7,13,19,26)(2,8,14,20,25)(3,9,16,21,27)(4,10,15,22,28)(5,12,18,24,30)(6,11,17,23,29), (1,8)(2,7)(3,25,13,5,23,15)(4,26,14,6,24,16)(9,30,19,10,29,20)(11,18)(12,17)(21,28)(22,27)
192	810	(1,7,14,19,26)(2,8,13,20,25)(3,10,15,22,28)(4,9,16,21,27)(5,12,18,23,30)(6,11,17,24,29), (1,28)(2,27)(3,16,13,6,23,26)(4,15,14,5,24,25)(7,22)(8,21)(9,30)(10,29)(11,18)(12,17)(19,20)
193	810	(1,23,16,27,19,2,24,15,28,20)(3,26,7,30,11,4,25,8,29,12)(5,17,9,21,13,6,18,10,22,14), (1,21,12)(2,22,11)(5,25,15)(6,26,16)(7,18,27)(8,17,28)(9,20,29)(10,19,30)
<u>216</u>	960	(1,15,23,13,4)(2,16,24,14,3)(5,18,8,21,9)(6,17,7,22,10)(11,20,26,30,27)(12,19,25,29,28), (1,25,24)(2,26,23)(3,11,7)(4,12,8)(5,21,16)(6,22,15)(9,29,20)(10,30,19)(13,18,27)(14,17,28)
<u>217</u>	960	(1,19,15,2,20,16)(3,21,18,4,22,17)(5,24,14,6,23,13)(7,10,11,8,9,12)(25,30,28)(26,29,27), (1,28,10)(2,27,9)(3,29,11)(4,30,12)(5,26,7)(6,25,8)(13,15,17)(14,16,18)(19,23,22)(20,24,21)
271	1500	(1,2)(3,15)(4,16)(7,8)(9,10)(11,30)(12,29)(13,14)(17,23)(18,24)(19,20)(21,27)(22,28)(25,26), (1,18,22,8,24,27,14,29,3,20,5,10,25,12,16)(2,17,21,7,23,28,13,30,4,19,6,9,26,11,15)
277	1500	(1,7)(2,8)(5,23)(6,24)(11,18)(12,17)(13,25)(14,26)(19,20)(29,30), (1,12,22,8,18,27,14,24,3,20,29,10,25,5,16)(2,11,21,7,17,28,13,23,4,19,30,9,26,6,15)
279	1500	(1,10)(2,6)(3,7)(4,8)(5,9)(11,29)(12,28)(13,27)(14,26)(15,30)(16,20)(17,19)(21,25)(22,24), (1,28,21)(2,27,22)(3,26,23)(4,30,24)(5,29,25)(6,14,18,7,13,17,8,12,16,9,11,20,10,15,19)
281	1500	(1,10)(2,8)(3,6)(4,9)(5,7)(11,25)(12,21)(13,22)(14,23)(15,24)(16,19)(17,18)(26,28)(29,30), (1,23,30,2,21,28,3,24,26,4,22,29,5,25,27)(6,11,20,10,12,19,9,13,18,8,14,17,7,15,16)
293	1620	(1,4,7,20,10)(2,5,9,19,11)(3,6,8,21,12)(13,24,17,28,27)(14,23,18,29,25)(15,22,16,30,26), (1,27)(2,25,3,26)(4,29,6,28)(5,30)(7,18,9,16)(8,17)(10,13)(11,14,12,15)(19,24)(20,22,21,23)
295	1620	(1,7,13,20,26)(2,8,14,19,25)(3,10,16,21,27)(4,9,15,22,28)(5,12,18,24,29)(6,11,17,23,30), (1,2)(3,15,30,28)(4,16,29,27)(5,20,18,23)(6,19,17,24)(7,14,26,9)(8,13,25,10)(11,12)(21,22)
296	1620	(1,7,13,20,26)(2,8,14,19,25)(3,10,16,21,27)(4,9,15,22,28)(5,12,18,24,29)(6,11,17,23,30), (1,22)(2,21)(3,25,30,28,13,15,10,18,23,5,20,8)(4,26,29,27,14,16,9,17,24,6,19,7)(11,12)
298	1620	(1,17,23,6,30)(2,16,22,4,28)(3,18,24,5,29)(7,27,19,11,15)(8,25,21,10,13)(9,26,20,12,14), (1,26,3,27)(2,25)(4,9,23,21)(5,8,24,20)(6,7,22,19)(10,16,14,28,12,18,13,30,11,17,15,29)
299	1620	(1,18,23,5,30)(2,17,22,6,28)(3,16,24,4,29)(7,27,21,12,13)(8,25,20,11,14)(9,26,19,10,15), (1,15,22,9,2,13,23,8,3,14,24,7)(4,10,28,26,5,12,30,25,6,11,29,27)(16,20,17,21)(18,19)
300	1620	(1,22,7,28,26,5,19,13,18,10,2,24,9,29,25,6,20,14,16,12)(3,23,8,30,27,4,21,15,17,11), (1,2,3)(4,5,6)(10,12,11)(13,14,15)(19,20,21)(22,23,24)
302	1620	(1,30,4,14)(2,28,5,15)(3,29,6,13)(7,16,12,22,8,18,11,23,9,17,10,24)(19,27,21,25,20,26), (1,19,4,10,8)(2,21,5,11,7)(3,20,6,12,9)(13,29,23,27,16)(14,30,22,25,17)(15,28,24,26,18)
321	1800	(1,29,15,16,5,27,9,22)(2,30,14,18,6,25,8,24)(3,28,13,17,4,26,7,23)(10,20,11,21)(12,19), (1,9,15,5,12)(2,7,13,6,10)(3,8,14,4,11)(16,28,25,22,21,17,29,26,23,19,18,30,27,24,20)
<u>549</u>	4860	(1,6,9,30,22)(2,4,8,29,23)(3,5,7,28,24)(10,16,20,13,27)(11,18,19,15,26)(12,17,21,14,25), (1,20)(2,21)(3,19)(4,26)(5,27)(6,25)(10,17)(11,16)(12,18)(13,28)(14,30)(15,29)
<u>558</u>	4860	(1,15,18)(2,13,16)(3,14,17)(4,9,27)(5,8,25)(6,7,26)(10,28,19)(11,29,21)(12,30,20), (1,24,21,2,22,19,3,23,20)(4,13,11,6,15,12,5,14,10)(7,9,8)(16,30,27,18,28,26,17,29,25)
588	6000	(1,2)(5,6)(7,13,25,19)(8,14,26,20)(11,23,29,17)(12,24,30,18), (1,5,3,7,11,9,14,18,16,20,24,22,25,29,27)(2,6,4,8,12,10,13,17,15,19,23,21,26,30,28)
589	6000	(1,2)(3,4)(7,8)(9,15,27,21)(10,16,28,22)(11,24,29,18)(12,23,30,17)(13,14)(19,20)(25,26), (1,5,3,7,11,9,14,18,16,20,24,22,25,29,27)(2,6,4,8,12,10,13,17,15,19,23,21,26,30,28)

Nr.	Size	Generators
629	6480	(1,11,26,21,14)(2,12,25,22,13)(3,8,27,24,16)(4,7,28,23,15)(5,10,29,19,18)(6,9,30,20,17), (7,12,10,8,11,9)(19,24,21,20,23,22)(25,30,27)(26,29,28)
<u>817</u>	14400	(4,8,10,24,18)(5,9,11,22,16)(6,7,12,23,17), (1,23,2,22)(3,24)(4,14,7,25)(5,13,9,26)(6,15,8,27)(10,19,11,21)(12,20)(16,29,18,30)(17,28)
866	15000	(1,14,16,3,12,18,5,15,20,2,13,17,4,11,19)(6,23,30,7,21,26,8,24,27,9,22,28,10,25,29), (1,9,4,6)(2,8,3,7)(5,10)(11,22,15,21)(12,23,14,25)(13,24)(16,18,17,20)(26,30,27,28)
908	19440	(3,13)(4,14)(7,8)(15,26)(16,25)(17,18)(23,24)(27,28), (1,7,23,9,5,12,18,3,20,16,21,27,14,29,25)(2,8,24,10,6,11,17,4,19,15,22,28,13,30,26)
909	19440	(3,13)(4,14)(5,6)(15,25)(16,26)(23,24), (1,7,23,29,5,12,18,3,9,16,21,27,14,20,25)(2,8,24,30,6,11,17,4,10,15,22,28,13,19,26)
911	19440	(1,2)(3,4)(7,27)(8,28)(11,12)(13,14)(15,25)(16,26)(21,22)(23,24), (1,18,4,19,15,11,28,14,29,25,21,8,24,9,5)(2,17,3,20,16,12,27,13,30,26,22,7,23,10,6)
912	19440	(1,2)(3,4)(5,6)(7,8)(11,12)(13,14)(15,26)(16,25)(17,18)(19,29)(20,30)(21,22)(23,24)(27,28), (1,7,24,9,5,11,17,4,19,15,21,27,14,29,25)(2,8,23,10,6,12,18,3,20,16,22,28,13,30,26)
920	19440	(1,15,25,20,9,2,13,26,21,7,3,14,27,19,8)(4,17,30,23,11)(5,18,28,22,10)(6,16,29,24,12), (1,2)(4,6)(8,9)(11,12)(13,17)(14,18)(15,16)(19,21)(22,23)(25,30)(26,29)(27,28)
924	19440	(1,22)(2,21)(3,13)(4,14)(11,12)(15,26)(16,25)(19,30)(20,29)(23,24), (1,7,23,9,5,12,18,3,20,16,21,27,14,29,25)(2,8,24,10,6,11,17,4,19,15,22,28,13,30,26)
933	22500	(1,18,15,22,5,19,11,23,4,20,12,24,3,16,13,25,2,17,14,21)(6,30,7,26,8,27,9,28,10,29), (1,7,15)(2,8,14)(3,9,13)(4,10,12)(5,6,11)(16,25,28)(17,21,27)(18,22,26)(19,23,30)(20,24,29)
935	22500	(1,22,6,26,3,21,9,30,5,25,7,29,2,24,10,28,4,23,8,27)(11,19,12,17)(13,20,15,16)(14,18), (1,11,8)(2,15,9)(3,14,10)(4,13,6)(5,12,7)(16,24,30)(17,25,29)(18,21,28)(19,22,27)(20,23,26)
<u>1168</u>	43740	(1,23,5,21,28)(2,22,6,19,30)(3,24,4,20,29)(7,12,16,25,15,8,10,18,26,14,9,11,17,27,13), (1,25,3,27,2,26)(4,21,6,20,5,19)(7,29)(8,30)(9,28)(10,24)(11,22)(12,23)(13,14)(16,17)
1180	45000	(1,14,10)(2,13,6)(3,12,7)(4,11,8)(5,15,9)(16,25,29)(17,21,28)(18,22,27)(19,23,26)(20,24,30), (1,21,10,28,3,24,9,27)(2,25,7,30)(4,23,6,29,5,22,8,26)(11,19,14,17,15,18,12,20)(13,16)
1705	307200	(1,4,6,8,9)(2,3,5,7,10)(21,30,28,26,24)(22,29,27,25,23), (1,19,27,2,20,28)(3,11,30,4,12,29)(5,13,22)(6,14,21)(7,16,23)(8,15,24)(9,17,26)(10,18,25)
1801	414720	(1,20,29,13,8)(2,19,30,14,7)(3,21,26,16,9,4,22,25,15,10)(5,23,28,18,12,6,24,27,17,11), (1,3,6)(2,4,5)(7,9,12)(8,10,11)(13,17,16)(14,18,15)(19,23,22)(20,24,21)
2104	1312200	(1,17,3,16)(2,18)(4,22,9,29,13,26,11,20)(5,23,8,30,15,27,10,19)(6,24,7,28,14,25,12,21), (16,21,24,25,29)(17,19,22,26,28)(18,20,23,27,30)
2107	1312200	(1,19,10,18,13,26,4,30,3,21,12,17,14,25,6,28,2,20,11,16,15,27,5,29)(7,24,8,22,9,23), (1,10,5,14,8)(2,11,6,13,9)(3,12,4,15,7)(16,26,21,30,22)(17,27,19,29,23)(18,25,20,28,24)
2165	1500000	(1,15,25,5,13,24,4,11,23,3,14,22,2,12,21)(6,16,28)(7,18,29)(8,20,30)(9,17,26)(10,19,27), (1,10)(2,6)(3,7)(4,8)(5,9)(11,15,12,13)(16,18,17,20)(21,29)(22,27)(23,30)(24,28)(25,26)
2191	1500000	(1,24,16,5,21,19,4,23,17,3,25,20,2,22,18)(6,30,15)(7,27,13)(8,29,11)(9,26,14)(10,28,12), (1,10,5,9)(2,6,4,8)(3,7)(11,17)(12,16)(13,20)(14,19)(15,18)(26,28)(29,30)
2420	3000000	(1,6,4,8,3,9,5,7)(2,10)(11,18,12,17,14,20,13,16)(15,19), (1,16,30,2,18,26,3,20,27,4,17,28,5,19,29)(6,11,21,7,13,23,8,15,25,9,12,22,10,14,24)
2763	6000000	(1,12,25,2,15,21,3,13,22,4,11,23,5,14,24)(6,19,27)(7,20,30)(8,16,28)(9,17,26)(10,18,29), (1,6,2,7,4,9,3,8)(5,10)(11,19,15,16,12,17,13,20)(14,18)(22,23,25,24)(26,29,28,30)
3141	12000000	(1,9,3,7,2,8,5,10)(4,6)(11,20)(12,17)(13,19)(14,16)(15,18)(21,25,22,23), (1,28,15)(2,26,14)(3,29,13)(4,27,12)(5,30,11)(6,24,17,7,23,19,8,22,16,9,21,18,10,25,20)
4096	75582720	(1,11,17,23,28)(2,10,18,22,29)(3,12,16,24,30)(4,8,14,19,25,5,7,13,21,26,6,9,15,20,27), (1,6)(2,5)(3,4)(7,11,9,10)(8,12)(13,15)(17,18)(19,23)(20,22,21,24)(25,30)(26,28)(27,29)
4105	75582720	(1,27,19,15,11,2,25,21,14,12,3,26,20,13,10)(4,29,22,18,8,5,30,23,16,7,6,28,24,17,9), (1,5,3,4)(2,6)(19,23)(20,24,21,22)
4370	151165440	(1,5)(2,6)(3,4)(7,10)(8,12)(9,11)(19,23,20,22)(21,24)(25,29,27,28)(26,30), (1,28,10,24,14,2,29,11,23,15,3,30,12,22,13)(4,27,7,19,17,5,26,8,20,18,6,25,9,21,16)
4376	151165440	(1,18,24,9,27,3,17,22,8,26,2,16,23,7,25)(4,15,19,12,28,6,13,20,11,29,5,14,21,10,30), (1,3)(7,8)(10,12)(13,16)(14,17)(15,18)(19,22)(20,23)(21,24)(25,27)
4378	151165440	(1,21,30,16,12,3,19,29,18,11,2,20,28,17,10)(4,23,26,15,9,5,24,27,14,8,6,22,25,13,7), (5,6)(7,11)(8,10)(9,12)(13,16)(14,18)(15,17)(19,22,21,24)(20,23)(25,30)(26,28)(27,29)