The group G is isomorphic to the group labelled by $[\ 32,\ 35\]$ in the Small Groups library.

Trivial source character table of $G \cong C4$: Q8 at p = 2:

Ordinary character table of $G \cong C4 : Q8$:

Figure 1. The state of the state of $G = G \cap G$ and $G = G \cap $				1		- I -							1	1		3.7			1									
Normalisers N_i	N_1 N_2	-	$N_4 \mid N_5$, ,	N_7	$N_8 \mid I$	$N_9 \mid N_{10}$	$0 \mid N_{11}$	N_{12}	N_{13}			N_{17}	N_{18}	N_{19}	N_{20}	$V_{21} \mid N_{22}$	$N_{22} \mid N_{23}$	N_{24}	N_{25}	N_{26}	N_{27}	$N_{28} \mid I$	$N_{29} \mid I$	$V_{30} \mid N$	N_3		N_{34}
p-subgroups of G up to conjugacy in G	P_1 P_2		$P_4 \mid P_5$	P_6	P_7	$P_8 \mid I$	$P_9 \mid P_{10}$	$_{0} \mid P_{11}$	P_{12}	P_{13}	P_{14}	$P_{15} \mid P_1$	P_{17}	P_{18}	P_{19}	P_{20}	$P_{21} \mid P_2$	$P_{22} \mid P_{23}$	P_{24}	P_{25}	P_{26}	P_{27}	$P_{28} \mid I$	$P_{29} \mid 1$	$P_{30} \mid P_{5}$	$P_{31} \mid P_{32}$		P_{34}
Representatives $n_j \in N_i$	$1a \mid 1a$	1a	$1a \mid 1a$	$i \mid 1a$	1a	$1a \mid 1$	$1a \mid 1a$	1a	1 <i>a</i>	1a	1a	1a $1a$	$a \mid 1a$	1a	1 <i>a</i>	1a	1a $1a$	$a \mid 1a$	1 <i>a</i>	1 <i>a</i>	1a	1a	1a	1a	$1a \mid 1a$	$a \mid 1a$	$a \mid 1a$	1 <i>a</i>
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 2 \cdot \chi_{11} + 2 \cdot \chi_{12} + 2 \cdot \chi_{13} + 2 \cdot \chi_{14}$	32 0	0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	16 16	0	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 2 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 2 \cdot \chi_{14}$	16 0	16	0 0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 2 \cdot \chi_{12} + 2 \cdot \chi_{13} + 0 \cdot \chi_{14}$	16 0	0	16 0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	8	8 8	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	0	0 0	4	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 2 \cdot \chi_{14}$	8 0	8	0 0	0	8	0	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 2 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 0	8	0 0	0	0	8	0 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	0	0 0	0	0	0	4 0	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	0	0 0	0	0	0	0 8	0	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 2 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	0	0 0	0	0	0	0 0	8	0	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	0	0 0	0	0	0	0 0	0	4	0	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 2 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 0	0	8 0	0	0	0	0 0	0	0	8	0	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 2 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 0	0	8 0	0	0	0	0 0	0	0	0	8	0 0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8 8	0	0 0	0	0	0	0 0	0	0	0	0	4 (0	0	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	0	0	0	0 0	0	0	0	0	4 4	. 0	0	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	0	0	0	0 0	0	4	0	0	0 0	4	0	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	0	0	0	0 0	0	0	4	4	0 0	0	4	0	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	0	0	0	4 0	0	0	0	0	0 0	0	0	4	0	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	0	0	0	0 4	4	0	0	0	0 0	0	0	0	4	0 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	4	0	0	0 0	0	0	0	0	0 0	0	0	0	0	4 0	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	4	4 4	0	4	4	0 0	0	0	0	0	0 0	0	0	0	0	0 4	0	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	0	0 0	2	0	0	0 0	4	2	0	0	0 0	0	0	0	0	0 0	2	0	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	0	0 0	2	0	0	0 4	0	2	0	0	0 0	0	0	0	0	0 0	0	2	0	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	0	0 0	0	0	0	2 4	0	0	0	0	2 (0	0	0	0	0 0	0	0	2	0	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4 4	0	0 0	0	0	0	2 0	4	0	0	0	2 (0	0	0	0	0 0	0	0	0	2	0	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	0	2	2	0 0	0	2	0	0	2 2	2	0	0	0	0 2	2 0	0	0	0	2	0	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	2	0	0	0 0	0	0	2	2	2 2	0	2	0	0	2 0	0	0	0	0	0	2	0	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	0	2	2	0 2	2	0	2	2	0 0	0	2	0	2	0 2	2 0	0	0	0	0	0	2	0 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	2	0	0	0 2	2	2	0	0	0 0	2	0	0	2	2 0) 2	2	0	0	0	0	0	2 (0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	0	0	0	2 2	2	0	0	0	2 2	0	0	2	2	0 0	0	0	2	2	0	0	0	0 2	2 0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	2	2	2	2 0	0	0	0	0	0 0	0	0	2	0	2 2	2 0	0	0	0	0	0	0	0 (1 2	2 0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2 2	2	2 2	0	0	0	2 0	0	2	2	2	0 0	2	2	2	0	0 0	0	0	0	0	0	0	0	0 (0) 2	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	1 1	1	1 1	1	1	1	1 1	1	1	1	1	1 1	1	1	1	1	1 1	. 1	1	1	1	1	1	1	1 1	. 1	1	1
												-		•					-									

$P_1 = Group([()]) \cong 1$

 $P_2 = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C2$ $P_3 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C2$

 $P_4 = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28)]) \cong C2$

 $P_5 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C2 \times C2$ $P_6 = Group([(1,32,5,28)(2,24,9,31)(3,30,12,21)(4,29,14,19)(6,27,16,17)(7,15,18,26)(8,13,20,25)(10,11,22,23), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4$

 $P_7 = Group([(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C4$

 $P_8 = Group([(1,14,6,26)(2,20,10,30)(3,23,13,31)(4,16,15,5)(7,27,19,32)(8,22,21,9)(11,25,24,12)(17,29,28,18),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C4 \\ P_9 = Group([(1,18,5,7)(2,3,9,12)(4,32,14,28)(6,29,16,19)(8,24,20,31)(10,13,22,25)(11,30,23,21)(15,27,26,17),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4 \\ P_{10} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4 \\ P_{10} = Group([(1,3,5,12)(2,3,12)$

 $P_{11} = Group([(1,13,5,25)(2,19,9,29)(3,16,12,6)(4,24,14,31)(7,22,18,10)(8,28,20,32)(11,26,23,15)(17,30,27,21),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4$ $P_{12} = Group([(1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,22)(6,8,16,20)(7,24,18,31)(11,29,23,19)(13,27,25,17),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4$ $P_{13} = Group([(1,11,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(5,23,6,24)(7,20,29,21)(8,19,30,18)(9,27,10,28),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28)]) \cong C4$

 $P_{14} = Group([(1,23,16,24)(2,27,22,28)(3,4,25,26)(5,11,6,31)(7,8,29,30)(9,17,10,32)(12,14,13,15)(18,20,19,21),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28)]) \cong C4$ $P_{15} = Group([(1,25,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4$ $P_{16} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4$

 $P_{17} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,22)(6,8,16,20)(7,24,18,31)(11,29,23,19)(13,27,25,17)]) \cong C4 \times C2$ $P_{18} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,11,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(5,23,6,24)(7,20,29,21)(8,19,30,18)(9,27,10,28)]) \cong C4 \times C2$ $P_{19} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,11,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(5,23,6,24)(7,20,29,21)(8,19,30,18)(9,27,10,28)]) \cong C4 \times C2$ $P_{19} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,11,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(5,23,6,24)(7,20,29,21)(8,19,30,18)(9,27,10,28)]) \cong C4 \times C2$ $P_{19} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,23)(11,23)(13,25)(13,25)(13,23)(13,25)(13,23)$

 $P_{25} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32),(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong Q_{8} \\ P_{26} = Group([(1,3,5,12)(2,7,9,18)(4,14,14,32)(6,13,16,25)(2,19,9,29)(3,16,12,6)(4,24,14,31)(7,22,18,10)(8,28,20,32)(11,26,23,15)(17,30,27,21),(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong Q_{8} \\ P_{27} = Group([(1,3,5,12)(2,7,9,18)(4,14,16,16)(2,10)(3,13)(4,15)(5,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) = Q_{8} \\ P_{27} = Group([(1,3,5,12)(2,7,9,18)(4,14,16,16)(2,10)(3,13)(4,15)(5,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) = Q_{8} \\ P_{27} = Group([(1,3,5,12)(2,7,9,18)(4,14,16,16)(2,10)(3,13)(4,15)(5,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) = Q_{8} \\ P_{27} = Group([(1,3,5,12)(2,7,9,18)(4,14,16)(2,10)(3,13)(4,15)(5,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) = Q_{8} \\ P_{27} = Group([(1,3,5,12)(2,10)(3,13)(4,15)(5,16)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,10)(3,13)(4,15)(2,1$

 $P_{24} = Group([(1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,22)(6,8,16,20)(7,24,18,31)(11,29,23,19)(13,27,25,17),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \\ \cong Q_{24} = Group([(1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,22)(6,8,16,20)(7,24,18,31)(11,29,23,19)(13,27,25,17),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(15,26)(17,27)(19,29)(15,24,26,31)(11,29,23,19)(13,27,25,17),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(15,26)(17,27)(19,29)(15,24,26,31)(11,29,23,19)(13,27,25,17),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(15,26)(17,27)(19,29)(15,24,26,31)(11,29,23,19)(13,27,25,17),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(15,26)(17,27)(19,29)(13,27)(19,29)(11$

 $P_{27} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(2),30)(23,31)(27,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,23,31)(18,27,29,32),(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31)])\\ = C4:C4\\ P_{28} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,5,16)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,11,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(5,23,6,24)(7,20,29,21)(8,19,30,18)(9,27,10,28),(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31)])\\ = C4:C4\\ P_{29} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,4,6,15)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,4,6,15)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,4,6,15)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(27,9,18)(4,11,14,23)(6,13,16,25)(17,27)(19,29)(21,30)(24,31)(28,32),(1,3,5,12)(27,9,18)(4,11,14,23)(6,14,16,16)(17,18)(13,14,16,16)(17,18)(13,14,16,16)(17,1$

 $P_{33} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,1,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(5,23,6,24)(7,20,29,21)(8,19,30,12)(24,31)(28,32), (1,1,16,31)(2,17,22,32)(3,14,25,15)(4,13,26,12)(24,24,27,31)] \\ = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(13,24)(13,$

$$\begin{split} N_1 &= Group([1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,32,8)(13,29,25,19)(17,24,27,31), (1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,4,6,15)(2,8,10,21)(2,13,32)(13,23)(2,13,23)(13,23)(13,23)$$

 $N_{14} = Group([(1,23,16,24)(2,27,22,28)(3,4,25,26)(5,11,6,31)(7,8,29,30)(9,17,10,32)(12,14,13,15)(18,20,19,21),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,29,29)(15,24,26,31)(21,28,30,32)]) \cong C4: Q8$ $N_{15} = Group([(1,25,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,29,25)($

 $N_{16} = Group([(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,32,23,28)(13,29,25,19)(17,24,27,31),(1,5)(2,9)(3,12)(4,14)(6,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(13,24)(24,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(12,25)(14,26)(17,28)(13,29)(13,24)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,2,29)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,22)(11,24)(21,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12,23)(13,23)(12$

 $N_{19} = Group([(1,18,5),7)(2,3,9,12](1,32)(2,7,9,12)(1,32)(1,32)(2,7,9)(1,32)(2,7,9)(1,32)(2,32)(1,32)(2,7,9)(1,32)(2,7,9)(1,32)(2,32)(1,32)(3,32)($

 $N_{23} = Group([(1,13,5,25)(2,19,9,29)(3,16,12,5)(2,19,9,29)(3,16,12,5)(4,14,16,16)(7,22,18,10)(8,28,20,32)(11,26,23,15)(17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32)) = C2 \times Q8$ $N_{24} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,27,25)(11,29,23,19)(13,27,25)(11,29,23,19)(13,27,25)(11,29,23,19)(13,27,25)(11,29,23,19)(13,27,25)(11,29,23,19)(13,27,25)(13,29,29)(13,29,$

 $N_{24} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,21,5,30)(2,26,9,15)(3,32,12,28)(4,10,14,22)(6,8,16,20)(7,24,18,31)(11,29,23,19)(13,27,25,17), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)]) \\ = C_2 \times Q_8$ $N_{25} = Group([(1,2,5,9)(3,12)(4,21,14,30)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)]) \\ = C_2 \times Q_8$

 $N_{25} = Group([(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(17,27)(19,29)(21,30)(24,31)(28,32), (1,5)(2,7)(19,29)(21,30)(24,31)(27,32)]) \cong C2 \times Q8$ $N_{26} = Group([(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(17,24,27,31), (1,35,25)(2,79,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(27,32)]) \cong C2 \times Q8$ $N_{26} = Group([(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,10,16,22)(8,26,20,15)(11,26,23,15)(17,24,27,31), (1,35,25)(2,19,9,29)(3,16,12,6)(17,27)(19,29)(21,30)(24,31)(28,32), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(17,24,27,31), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(17,28,30,32), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(17,28,30,32), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(17,28,30,32), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,12,14,26)(17,28)(11,28,30,32), (1,35,25)(13,29,25,19)(17,24,27,31), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,12,14,26)(17,28)(11,28,30,32), (1,35,25)(13,29,25,19)(17,24,27,31), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(8,12,14,26)(17,28)(13,29,25,19)(17,24,27,31), (1,35,25)(27,9,18)(4,11,14,23)(6,13,16,25)(17,28,18)(17,28,1$

 $N_{27} = Group([(1,2,5,9)(3,18,12,7)(4,21,14,30)(6,13,16,25)(8,27,21,14,30)(6,13,16,25)(8,27,21,14,30)(6,13,16,25)(8,27,21,14,30)(6,13,16,25)(8,17,22)(11,24)(12,25)(14,26)(17,27)(19,29)(13,24)(12,25)(14,26)(17,28)(13,24)(12,25)(14,26)(17,28)(13,24)(13,$