	1a	2a	4a	4b	2b	2c	4c	4d	4e	4f	4g	2d	4h	4i
$\chi_1$	1	1	1	1	1	1	1	1	1	1	1	1	1	1
$\chi_2$	1	-1	-1	-1	1	1	1	1	1	-1	-1	1	-1	1
$\chi_3$	1	-1	-1	1	1	1	1	-1	-1	-1	1	1	1	-1
$\chi_4$	1	-1	1	-1	1	1	-1	1	-1	1	-1	1	1	-1
$\chi_5$	1	-1	1	1	1	1	-1	-1	1	1	1	1	-1	1
$\chi_6$	1	1	-1	-1	1	1	-1	-1	1	-1	-1	1	1	1
$\chi_7$	1	1	-1	1	1	1	-1	1	-1	-1	1	1	-1	-1
$\chi_8$	1	1	1	-1	1	1	1	-1	-1	1	-1	1	-1	-1
$\chi_9$	2	0	-2 * E(4)	0	2	-2	0	0	0	2 * E(4)	0	-2	0	0
$\chi_{10}$	2	0	2 * E(4)	0	2	-2	0	0	0	-2 * E(4)	0	-2	0	0
$\chi_{11}$	2	0	0	0	-2	-2	0	0	-2 * E(4)	0	0	2	0	2 * E(4)
$\chi_{12}$	2	0	0	0	-2	-2	0	0	2 * E(4)	0	0	2	0	-2*E(4)
$\chi_{13}$	2	0	0	-2 * E(4)	-2	2	0	0	0	0	2 * E(4)	-2	0	0
$\chi_{14}$	2	0	0	2 * E(4)	-2	2	0	0	0	0	-2 * E(4)	-2	0	0

Ordinary character table of  $G \cong (C4 \times C4) : C2$ :

Trivial source character table of $G \cong (C4 \times C4) : C2 \text{ at } p = 2$ :																													
Normalisers $N_i$	$N_1$	$N_2$	$N_3$	$V_4 \mid \Lambda$	$V_5 \mid N$	$_{6}$ $N$	$V_7 \mid N_8$	$N_9$	$N_{10}$	$N_{11}$	$N_{12}$	$N_{13}$	$N_{14}$	$N_{15}$			$N_{18}$	$N_{19}$	$N_{20}$				$N_{24}$	$N_{25}$	$N_{26}$	$N_{27}$	$N_{28}$	$N_{29}$	$\overline{N_{30}}$
p-subgroups of $G$ up to conjugacy in $G$	$P_1$	$P_2$	$P_3$	$P_4 \mid F$	$P_5 \mid P_6$	$P_6 \mid P$	$P_7 \mid P_8$	$P_9$	$P_{10}$	$P_{11}$	$P_{12}$	$P_{13}$	$P_{14}$	$P_{15}$	$P_{16}$	$P_{17}$	$P_{18}$	$P_{19}$	$P_{20}$	$P_{21}$	$P_{22}$	$P_{23}$	$P_{24}$	$P_{25}$	$P_{26}$	$P_{27}$	$P_{28}$	$P_{29}$	$P_{30}$
Representatives $n_j \in N_i$	1a	1a	1a	$a \mid 1$	$a \mid 1a$	$a \mid 1a$	$a \mid 1a$	1a	1 <i>a</i>	1 <i>a</i>	1a	1 <i>a</i>	1a																
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 2 \cdot \chi_{11} + 2 \cdot \chi_{12} + 2 \cdot \chi_{13} + 2 \cdot \chi_{14}$	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
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	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
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 2 \cdot \chi_{11} + 2 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	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
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 2 \cdot \chi_{13} + 2 \cdot \chi_{14}$	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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14}$	16	0	0	0 4	1 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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	8	0	0 (	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14}$	8	0	0	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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	0	8	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
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	0	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
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14}$	8	0	0	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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14}$	8	0	0	8 4	1 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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	8	0	0 4	1 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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	0	8	0 4	1 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
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4	4	4	4 4	4	0	0	0	0	0	0	4	4	4	4	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	4	0	0	0	0	0	4	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	4	0	0	0	0	0	4	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	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4	4	4	4 (	) 4	0	0	0	4	0	0	0	0	0	0	0	0	0	4	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	4	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	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2	2	2	$2 \mid 2$	$2 \mid 2$	2 0	0	2	2	0	0	2	2	2	2	0	0	2	2	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	$2 \mid 2$	$2 \mid 2$	2 0	) 2	0	0	2	0	2	2	2	2	2	0	0	0	0	2	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	$2 \mid 2$	$2 \mid 2$	2	2 0	0	0	0	2	2	2	2	2	0	2	0	0	2	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	0	2	0	2	0	0	0	0	0	2	0	2	0	2	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	2 0	0	2	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	0	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	2	0	2	2	0	0	0	0	2	2	2	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

- $P_2 = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C2(1,23)($
- $P_3 = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28)]) \cong C2$
- $P_4 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C2$
- $P_5 = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,32)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27)]) \cong \mathbb{C}^2$
- $P_8 = Group([(1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24,25,31)(19,28,29,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)]) \cong C4$  $P_9 = Group([(1,18,6,29)(2,12,10,25)(3,22,13,9)(4,32,15,27)(5,7,16,19)(8,31,21,23)(11,20,24,30)(14,28,26,17),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong \mathbf{C4}$

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

- $P_{21} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,32,5,28)(2,31,9,24)(3,20,12,8)(4,7,14,18)(6,27,16,17)(10,23,22,11)(13,30,25,21)(15,19,26,29)]) \cong C4 \times C2$
- $P_{23} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(5,12,6,13)(8,17,30,32)(9,18,10,19)(14,23,15,24)(20,27,21,28), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(5,12,6,13)(14,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(5,12,6,13)(14,25)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31)(28,32), \\ (1,3,16,25)(2,7,22,29)(4,11,26,31)(24,31$  $P_{24} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24,25,31)(19,28,29,32), (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24,25,31)(19,28,29,32), (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24,25,31)(19,28,29,32), (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,23)(13,24)(13,2$
- $P_{26} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,72,22)(4,11,26,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(2,23)(13,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(2,12)(2$  $P_{27} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(13,20)(13,24)(17,28$
- $P_{28} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,29)(2,13,9)(4,32,15,27)(5,7,16,19)(8,31)(12,23)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,4,5,14)(2,8,9,20)(3,11,12,23)(14,25)(13,24)(27,28)(1$
- $P_{30} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(13,29)(13,24)(27,28), (1,2,3)(13,29)(13,24)(27,28), (1,2,3)(13,29)(13,24)(27,28), (1,2,3)(13,29)($
- $N_1 = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,28)(12,28)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(14$  $N_2 = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,32)(13,29)(14,30)(16,22)(17,31)(19,28)(20,27,21,28), \\ (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(13,29)(20,30)(23,31)(27,32)] \\ \cong (C_4 \times C_4) : C_2 \times C_4 \times C_4 : C_4 \times C_4$
- $N_4 = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,23)(6,15,16,26)(7,72,29)(4,11,26,31)(13,24)(13,29)(14,20)(13,24)(13,29)(14,20)(13,24)(13,29)(14,20)(13,24)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(13,29)(14,20)(14,2$  $N_5 = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,32)(13,29)(14,30)(16,22)(7,31)(19,25)(20,26)(23,28)(24,27), \\ (1,9)(2,5)(3,7)(4,30)(6,22)(7,25)(9,16)(11,27)(12,19)(13,18)(14,20)(15,21)(17,23)(24,32)(26,30)(28,31)] \\ \cong C_2 \times C_2 \times C_2 \times C_3 \times C_4 \times$
- $N_6 = Grow([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(13,$
- $N_8 = Group([(1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24,25,31)(19,28,29,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,5)(29,32)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,5)(29,32)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,5)(29,32)(28,32), (1,5)(29,32)(28,32), (1,5)(29,32)(29,32), (1$
- $N_{11} = Group([(1,21,16,20)(2,15,22,14)(3,32,25,17)(4,9,26,10)(5,30,6,8)(7,31,29,11)(12,28,13,27)(18,24,19,23),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,28),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,23)(13,25)(14,26,27)$  $N_{12} = Group([(1,11,6,24)(2,17,10,28)(3,26,13,14)(4,12,15,25)(5,23,16,31)(7,30,19,20)(8,18,21,29)(9,27,22,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,29)(11,24)(12,25)(14,26)(17,28)(18,29)(12,2$

- $N_{15} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,12)(8,13)(14,12)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,12)(8,13)(14,12)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,12)(8,12)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,12)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,12)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,12)(13,29)(14,30)(16,22)(17,31)(19,25)(19,29$
- $N_{16} = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,32)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(13,24)(27,28), \\ (1,4,5)(1,2,3)(1,4,12)(1,2,3)(1,4,12)(1,2,3)(1,4,12)(1,2,3)(1,2,3)(1,2,3)(1,2,3)(1,3,2)(1,3,$
- $N_{17} = Group([(1,21,16,20)(2,15,22,14)(3,32,25,17)(4,9,26,10)(5,30,6,8)(7,31,29,11)(12,28,13,27)(18,24,19,23)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32)(17,31)(19,25)(20,26)(23,28)(24,27)(18,24,19,23)(18,29)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(19,29)(21,30)(24,31)(28,32)(21,32)(2$  $N_{18} = Group([(1,11,6,24)(2,17,10,28)(3,26,13,14)(4,12,15,25)(5,23,16,31)(7,30,18)(4,21)(5,9)(6,10)(7,12)(8,15)(11,32)(13,24)(27,21,28)(1,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,21,28)(1,13)(14,15)(17,32)(18,19)(20,21)(23,24)(27,21,28)(13,25)(13,24)(20,27,21,28)(20,27,21,28)(20,$
- $N_{19} = Group([(1,18,6,29)(2,12,10,25)(3,22,13,9)(4,32,15,27)(5,7,16,19)(8,31,21,23)(11,20,24,30)(14,28,26,17),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(13,24)(27,28),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,25)(15,26)(17,27)(19,29)(21,30)(24,31)(12,23)(13,25)(15,26)(17,27)(19,29)(21,30)(14,28,26,17),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(13,24)(27,28),(1,16)(2,22)(3,25)(4,26)(17,27)(19,29)(21,30)(14,28,26,17),(1,5)(2,23)(13,24)(27,28),(1,16)(2,22)(3,24)(27,28),(1,16)(27,28)(27,28),(1,16)(27,28)(27,28),(1,16)(27,28)(27,28),(1,16)(27,28)(27,28),(1,16)(27,28)(27,28),(1,16)(27,28)(27,28),(1,16)(27,28),(1,16)(27,28),(1,16)(27,28),(1,16)(27,28),(1,16)(27,28),(1,1$
- $N_{20} = Group([(1,3,16,25)(2,7,22,29)(4,11,26,31)(5,12,6,13)(13,29)(14,30)(15,26)(17,27)(19,29)(21,30)(24,31)(13,25)(15,26)(17,32)(13,29)(14,30)(15,26)(17,32)(13,29)(14,30)(15,26)(17,32)(17,32)(1$
- $N_{21} = Group([(1,32,5,28)(2,31,9,24)(3,20,12,3)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,16)(2,22)(3,25)(4,26)(23,28)(24,27),(1,3,16)(23,22)(13,24)(27,28),(1,26)(21,23)(24,27)(24,24)(27,28),(1,26)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,27)(24,24)(24,$
- $N_{22} = Group([(1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24)(27,28),(1,2)(3,29)(4,10,23)(13,29)(14,30)(16,22)(17,31)(19,28,29,32),(1,5)(2,9)(3,12)(4,10,12,23)(13,29)(14,30)(16,22)(17,31)(19,28,29,32),(1,5)(2,9)(3,12)(4,13)(13,29)(14,30)(16,22)(17,31)(19,28,29,32),(1,5)(2,9)(3,12)(4,13)(13,29)(14,30)(16,22)(17,31)(19,28,29,32),(1,5)(2,9)(3,12)(4,13)(13,29)(14,30)(16,22)(17,31)(19,28,29,32),(1,5)(2,9)(3,12)(4,13)(13,29)(14,30)(16,22)(17,31)(19,28,29,32),(1,5)(2,9)(2,13)(14,13)$  $N_{23} = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,32)(13,29)(14,30)(15,29)(14,30)(15,29)(14,30)(15,29)(14,30)(15,29)(14,30)(15,29)(14,30)(15,29)(14,30)(15,29)(14,30)(15,29)$
- $N_{24} = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,32)(11,23)(13,29)(14,30)(16,22)(17,31)(19,28)(24,27), (1,4,5,14)(2,8,9,20)(3,11,12,23)(6,15,16,26)(7,17,18,27)(10,21,22,30)(13,24)(27,28), (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), (1,16)(2,22)(3,24)(27,28), (1,16)(2,22)(27,28), (1,16)(2,22)(27,28), (1,16)(2,22)(27,28), (1,16)(2,22)(27,28), (1,16)(2,22)(27,$  $N_{25} = Group([(1,2)(3,18)(4,21)(5,9)(6,10)(7,12)(8,31)(1,2)(13,29)(14,30)(16,22)(17,31)(19,25)(20,26)(23,28)(24,27), \\ (1,11,6,24)(2,17,10,28)(3,26,13,14)(4,12,15,25)(5,23,16,31)(7,30,12)(14,20)(14,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10,11,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,13)(14,25)(17,27)(19,29)(11,30)(14,21)(17,27)(19,29)(11,30)(11,$
- $N_{29} = Group([(1,21,16,20)(2,15,22,14)(3,32,25,17)(4,9,26,10)(5,30,6,8)(7,31,29,11)(12,28,13,27)(18,29)(2,13,26)(17,31)(19,25)(20,26)(23,28)(24,27)] \\ = (C_4 \times C_4) \times (C_4 \times C_4) \times (C_4 \times C_4) \times (C_5 \times C_4) \times$