	1a	4a	4b	2a	2b	2c	4c	4d	4e	4f	4g	2d	2e	2f	4h	4i	4j	4k	2g	4l
χ_1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
χ_2	1	-1	-1	-1	1	1	1	1	-1	1	-1	-1	-1	1	-1	1	1	1	-1	-1
<i>X</i> 3	1	-1	-1	1	1	1	1	-1	-1	-1	-1	1	1	1	1	1	-1	-1	1	1
χ_4	1	-1	1	-1	1	1	-1	1	-1	-1	1	-1	-1	1	1	-1	1	-1	-1	1
χ_5	1	-1	1	1	1	1	-1	-1	-1	1	1	1	1	1	-1	-1	-1	1	1	-1
χ_6	1	1	-1	-1	1	1	-1	-1	1	1	-1	-1	-1	1	1	-1	-1	1	-1	1
χ_7	1	1	-1	1	1	1	-1	1	1	-1	-1	1	1	1	-1	-1	1	-1	1	-1
χ_8	1	1	1	-1	1	1	1	-1	1	-1	1	-1	-1	1	-1	1	-1	-1	-1	-1
χ_9	1	-E(4)	-1	-1	1	-1	E(4)	E(4)	E(4)	1	1	-1	1	-1	-E(4)	-E(4)	-E(4)	-1	1	E(4)
χ_{10}	1	E(4)	-1	-1	1	-1	-E(4)	-E(4)	-E(4)	1	1	-1	1	-1	E(4)	E(4)	E(4)	-1	1	-E(4)
χ_{11}	1	-E(4)	-1	1	1	-1	E(4)	-E(4)	E(4)	-1	1	1	-1	-1	E(4)	-E(4)	E(4)	1	-1	-E(4)
χ_{12}	1	E(4)	-1	1	1	-1	-E(4)	E(4)	-E(4)	-1	1	1	-1	-1	-E(4)	E(4)	-E(4)	1	-1	E(4)
χ_{13}	1	-E(4)	1	-1	1	-1	-E(4)	E(4)	E(4)	-1	-1	-1	1	-1	E(4)	E(4)	-E(4)	1	1	-E(4)
χ_{14}	1	E(4)	1	-1	1	-1	E(4)	-E(4)	-E(4)	-1	-1	-1	1	-1	-E(4)	-E(4)	E(4)	1	1	E(4)
χ_{15}	1	-E(4)	1	1	1	-1	-E(4)	-E(4)	E(4)	1	-1	1	-1	-1	-E(4)	E(4)	E(4)	-1	-1	E(4)
χ_{16}	1	E(4)	1	1	1	-1	E(4)	E(4)	-E(4)	1	-1	1	-1	-1	E(4)	-E(4)	-E(4)	-1	-1	-E(4)
χ_{17}	2	0	0	-2	-2	-2	0	0	0	0	0	2	2	2	0	0	0	0	-2	0
χ ₁₈	2	0	0	-2	-2	2	0	0	0	0	0	2	-2	-2	0	0	0	0	2	0
χ_{19}	2	0	0	2	-2	-2	0	0	0	0	0	-2	-2	2	0	0	0	0	2	0
χ_{20}	2	0	0	2	-2	2	0	0	0	0	0	-2	2	-2	0	0	0	0	-2	0

Trivial source character table of $G \cong C2 \times (C4 : C4)$ at $p = 2$:																										
Normalisers N_i	$N_1 \mid N_2 \mid N_3$	N_4 N	$V_5 \mid N_6 $	$V_7 \mid N_8 \mid I$	$N_9 \mid N_{10} \mid$	N_{11} N_{12}	$_{2}$ N_{13} I	$N_{14} \mid N_{15}$	N_{16} N	$V_{17} \mid N_{18}$	N ₁₉ N ₂	N_{21}	$N_{22} \mid N_{23}$	N_{24} N	$V_{25} N_{26} $	N_{27} N_{27}	$_{8} \mid N_{29} \mid$	N_{30}	$N_{31} N_{32} $	N_{33}	$N_{34} \mid N_{35} \mid N_{36}$	$N_{37} \mid N_{38} \mid N_{38}$	N_{40}	$N_{41} N_{42} $	N_{43} N_{44}	N_{45} N_{46}
p-subgroups of G up to conjugacy in G	P_1 P_2 P_3	P_4 P_4	P_5 P_6 I	P_7 P_8	P_9 P_{10}	P_{11} P_{12}	P_{13}	$P_{14} P_{15}$	P_{16} P	$P_{17} P_{18}$	P_{19} P_{2}	$0 P_{21}$	$P_{22} P_{23}$	P_{24} P	$P_{25} P_{26} $	P_{27} P_{2}	$_{8}$ P_{29}	P_{30}	$P_{31} P_{32}$	P_{33}	P_{34} P_{35} P_{36}	P_{37} P_{38} P_{3}	$_{9}$ P_{40} .	P_{41} P_{42}	P_{43} P_{44}	P_{45} P_{46}
Representatives $n_i \in N_i$	1a $1a$ $1a$	1a 1a	a 1 a 1	a $1a$	1a $1a$	1a 1a	1a	1a 1a	1a 1	a 1a	1a 1a	1a	1a 1a	1a 1	a $1a$	1a 1	1 1a	1a	1a 1a	1 <i>a</i>	1a 1a 1a	1a 1a 1a	1 1a	1a 1a	1a 1a	1a $1a$
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 2 \cdot \chi_{17} + 2 \cdot \chi_{18} + 2 \cdot \chi_{19} + 2 \cdot \chi_{20} \right)$	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 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 2 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20}$	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 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	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 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 2 \cdot \chi_{17} + 0 \cdot \chi_{18} + 2 \cdot \chi_{19} + 0 \cdot \chi_{20}$	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 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 2 \cdot \chi_{19} + 2 \cdot \chi_{20}$	16 0 0	0 10	6 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 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 2 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20}$	16 0 0	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 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 2 \cdot \chi_{17} + 2 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	16 0 0	0 0	0 1	6 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	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 2 \cdot \chi_{18} + 2 \cdot \chi_{19} + 0 \cdot \chi_{20}$	16 0 0	0 0	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	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 2 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 8 0	0 0	0 0	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	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 8 8	8 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 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}$	8 8 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	0 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 2 \cdot \chi_{20}$	8 8 0	0 8	8	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	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 8	0 8	3 0	8 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 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 8	0 0) 8	0 8	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 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 2 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 0	8 8	3 0	0 8	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	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 2 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 0	8 0) 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	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}$	8 8 0	0 0	0	0 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 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 8	0 0	0 0	0 0	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 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 8	0 0	0	0 0	0 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	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}$	8 8 0	0 0	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	0 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 8	0 0	0 0	0 0	0 0	0 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 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	8 0 8	0 0	0	0 0	0 0	0 0	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	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}$	8 8 0	0 0	0	0 0	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 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 0	0	0 0	0 4	0 0	0	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 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 0	0	0 0	0 4	0 0	0	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 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 0	0	0 0	0 4	0 0	0	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	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 0 4	0 4	1 0	4 0	0 0	0 0	4	0 0	0 (0 4	0 0	4	0 0	0	0 0	4 (0	0	0 0	0	0 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 0	0	0 0	0 4	0 0	0	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 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 0	0	0 0	0 4	4 0	0	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 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 4	4	4 4	4 4	0 4	4	4 4	4 (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
$1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 1 \cdot \chi_{3} + 0 \cdot \chi_{4} + 0 \cdot \chi_{5} + 0 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 0	0 0	0	4 4	4 0	2 0	0	0 0	0 5	2 0	0 0	0	0 0	0	0 0	0 (0	0	2 0	0	0 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}$	4 4 0	0 4	4	0 0	0 0	2 4	0	0 0	0 5	2 0	0 0	0	0 0	0	0 0	0 0	0	0	0 2	0	0 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 1 \cdot \chi_{5} + 0 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 1 \cdot \chi_{9} + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 0 4	0 0) 4	0 4	0 0	0 0	0	4 0	0 (0 0	4 0	4	0 0	0	0 0	0 (0	0	0 0	4	0 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 1 \cdot \chi_{20}$	4 4 0	0 4	4	0 0	0 0	0 4	0	0 0	0 (0 0	0 2	0	0 2	0	0 0	0 (0	0	0 0	0	2 0 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 0	0 0	0 0	4 4	4 0	0 0	0	0 0	0 (0 0	0 2	0	0 2	0	0 0	0 0	0	0	0 0	0	0 2 0	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 0 4	0 0) 4	0 4	0 0	0 0	0	4 0	0 (0 4	0 0	0	4 0	0	0 0	0 (0	0	0 0	0	0 0 4	0 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 0 4	0 4	1 0	4 0	0 0	0 0	4	0 0	0 (0 0	4 0	0	4 0	0	0 0	0 (0	0	0 0	0	0 0 0	4 0 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	4 4 4	4 0	0	0 0	0 4	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 0	0 4 0	0	0 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	2 2 2	2 2	2 2	2 2	2 2	0 2	2	2 2	2 (0 2	2 0	2	2 0	0	0 2	2 2	0	2	0 0	2	0 0 2	2 0 2	0	0 0	0 0	0 0
$\left[1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 0 \cdot \chi_{5} + 1 \cdot \chi_{6} + 0 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}\right]$	2 2 2	2 0	0	0 0	0 2	2 0	0	0 0	0 (0 0	0 0	2	2 2	2	0 2	0 (2	0	0 0	0	0 0 0	0 0 0	2	0 0	0 0	0 0
$\left[1 \cdot \chi_{1} + 0 \cdot \chi_{2} + 0 \cdot \chi_{3} + 0 \cdot \chi_{4} + 0 \cdot \chi_{5} + 0 \cdot \chi_{6} + 1 \cdot \chi_{7} + 0 \cdot \chi_{8} + 0 \cdot \chi_{9} + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}\right]$	2 2 2	2 2	2 2	2 2	2 2	0 2	2	2 2	2 (0 0	0 2	0	0 2	2	2 0	0 (0	2	0 0	0	2 2 0	0 0 0	0	2 0	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	2 2 2	2 0	0	$0 \mid 0$	0 2	2 0	0	0 0	0 (0 2	2 2	0	0 0	0	2 0	0 2	2	0	0 0	0	0 0 0	0 0 0	0	0 2	0 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	$2 \mid 2 \mid 2$	2 2	2 2	2 2	2 2	$2 \overline{2}$	2	2 2	2	2 0	0 0	0	0 0	0	0 0	0 0	2	2	2 2	0	0 0 0	$0 \boxed{2} \boxed{0}$	0	0 0	2 0	0 0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	2 2 2	2 0	0	0 0	0 2	0 0	0	0 0	0 :	$2 \overline{2}$	2 0	0	0 2	2	0 0	0 2	0	0	0 0	0	0 0 0	0 2 0	0	0 0	0 2	0 0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	2 2 2				0 2	0 0	0	0 0	0	$\begin{array}{c c} 2 & 0 \end{array}$	0 2	2	2 0	0	2 2	0 (0	0	0 0	0	0 0 0	$0 \boxed{2} \boxed{0}$	0		1 1	
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20}$	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	1	1 1 1	1 1 1	1	1 1	1 1	1 1

```
P_1 = Group([()]) \cong 1
P_2 = 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(3,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,32)(12,
P_3 = 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_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([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32)]) \cong C2
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 $P_6 = Group([(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29)]) \cong C2$ $P_7 = Group([(1,14)(2,20)(3,23)(4,5)(6,26)(7,27)(8,9)(10,30)(11,12)(13,31)(15,16)(17,18)(19,32)(21,22)(24,25)(28,29)]) \cong C2$ $P_8 = Group([(1,26)(2,30)(3,31)(4,16)(5,15)(6,14)(7,32)(8,22)(9,21)(10,20)(11,25)(12,24)(13,23)(17,29)(18,28)(19,27)]) \cong \mathbb{C}^2$

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

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

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

 $P_{34} = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(4,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(4,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(4,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(4,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(4,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(4,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)(3,18,12,28)(4,18,12,28), \\ (1,2,6,10)($

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

 $P_{43} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(18,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(18,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(18,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(18,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(18,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(18,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(18,29)(12,28)$ $P_{44} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(27,32)(17,28)(19,29)(11,24)(12,25)(14,26)(17,28)(19,28)$ $P_{45} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,28)(13,26)(17,27)(19,29)(21,30)(24,31)(27,32)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,22)(11,24)(12,25)(14,26)(17,28)(19,24)(11,24)(12,25)(14,24)$ $P_{46} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,26)(17,27)(19,29)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,26)(17,27)(19,29)(11,24)(12,25)(14,26)(12,25)(14,26)(12,25)(14,26)(12,25)(14,26)(12,25)(14,26)(12,25)(14,26)(12,25)(14,26)$

 $N_1 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20)(25,31)(29,32)(15,24,26,31)(21,28,30,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32)] \\ \cong C_2 \times (C4:C4)(17,28)(13,28)(17,$ $N_3 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,20)(25,31)(27,32)(14,20)(15,24)($ $N_4 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,20,26,30)(17,31,28,23), \\ (1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(25,31)(27,32)] \\ \cong C_2 \times (C_4 : C_4)(17,28)(13,24)(16,26)(17,27)(19,29)(11,24)(12,25)(14,26)(12,25)(14,26)(12,25)(14,26)($ $N_5 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20)(25,31)(27,29)(15,24,26,31)(27,29)(15,24,26,31)(27,32)(14,20)(17,20)(17,$ $N_6 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,20)(25,31)(27,32)(14,20)(15,24)($ $N_7 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32)]) \\ \cong C2 \times (C4:C4)(17,27)(19,29)(11,24)(12,25)(14,26)(12,25)$ $N_8 = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), (1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32)]) \\ \cong C2 \times (C4:C4)(17,27)(19,29)(11,24)(12,25)(14,26)(12,25)(14,26)(14,26)$ $N_9 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(13,29)(24,25)(24$ $N_{10} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,2,6,10)(3,13)(4,15)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32), \\ (1,2,6,10)(3,13)(4,15)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(19,23)(11,24)(19,23)(19$ $N_{11} = Group([(1,27,6,32)(2,31,10,23)(3,20,13,30)(4,18,15,29)(5,17,16,28)(7,26,19,14)(8,25,21,12)(9,24,22,11),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(2,30)(23,31)(27,32),(1,2)(1,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32),(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32),(1,4)(28,32)(28,31)(27,32),(1,4)(28,32)($

 $N_{12} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,22)(11,24)(12,25)(14,26)(17,28)(18,27)(19,28)(19,22)(11,24)(19,28)(19,21)(19,29)(19,21)(19,29$ $N_{13} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,12)(11,23)(13,24)(16,26)(17,27)(19,29)(15,24,26,31)(21,28,30,32)] \\ \cong C_{12} \times (C_{13} \times C_{13} \times C_{13}$ $N_{14} = Group([(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32), \\ (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23), \\ (1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,28)(11,23)(14,16)(17,19)(18,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,18,13,29)(4,8,15,21)(2,21)(3,24)(4,6)(5,26)(7,28)(14,20,26)(17,28)(18,28)$ $N_{15} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,33)(13,24)(16,26)(18,27)(19,28)(23,30)(25,31)(29,32)(13,24)(27,28)(27,28)$ $N_{16} = Group([(1,16)(2,22)(3,25)(4,26)(5,6)(7,29)(8,30)(9,10)(11,31)(12,31)(14,16)(17,32)(18,19)(20,21)(23,24)(27,28), (1,15)(2,21)(3,24)(27,28), (1,15)(27,28), (1,$ $N_{18} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32), (1,5)(2,9)(3,12)(4,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32)]) \\ \cong C2 \times (C4:C4) \times (C4:C4$ $N_{19} = Group([(1,13,5,25)(2,19,9,29)(3,16,12,6)(4,24,14,31)(7,22,18,10)(8,28,20,32)(11,26,23,15)(17,30,27,21),(1,5)(2,9)(3,12)(4,14)(6,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,2,6,10)(3,12)(4,14)(6,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,2,6,10)(3,12)(4,14)(6,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,2,6,10)(3,12)(4,14)(6,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,2,6,10)(3,12)(4,14)(6,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,26,20)(21,30)(21,$ $N_{21} = Group([(1,11,5,23)(2,17,9,27)(3,14,12,4)(6,24,16,31)(7,20,18,8)(10,28,22,32)(13,26,25,15)(19,30,29,21),(1,5)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32)] \\ \cong C_{2} \times (C_{4}:C_{$ $N_{22} = Group([(1,24,5,31)(2,28,9,32)(3,26,12,15)(4,13,14,25)(6,11,16,23)(7,30,18,21)(8,19,20,29)(10,17,22,27),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23),(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,23,12,23),(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)(15,26)(17,27)(19,29)(11,23)(13,25)$

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

 $N_{33} = Group([(1,13,5,25)(2,19,9,29)(3,16,12,6)(4,24,14,31)(7,22,18,10)(8,28,20,32)(11,26,23,15)(17,30,27,21),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29),(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23)] \\ = C2 \times (C4 : C4) + (C4 : C4)$ $N_{34} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,24)(12,25)(14,26)(17,28)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32), \\ (1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,26)(17,27)(19,29)(11,24)(12,25)(14,26)(12,25)(12,26)(12$ $N_{36} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,19,22,29)(15,24,26,31)(21,28,30,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,25)(15,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,5)(29,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(12,28)(14,20,26)(14,20)(1$ $N_{37} = Group([(1,13,5,25)(2,19,9,29)(3,16,12,6)(4,24,14,31)(7,22,18,10)(8,28,20,32)(11,26,23,15)(17,30,27,21),(1,5)(2,9)(3,12)(4,14)(6,16)(7,18)(8,20)(10,22)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(28,32),(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(14,20,26,30)(17,31,28,23)]) \\ \cong C2 \times (C4:C4) \times ($ $N_{38} = Group([(1,18,6,29)(2,25,10,12)(3,9,13,22)(4,27,15,32)(5,7,16,19)(8,21)(2,25)(14,26)(17,27)(19,29)(21,30)(24,31)(25,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,20,26,30)(17,31,28,23), \\ (1,2,6,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(27,32)(14,20,26,30)(17,31,28)(17,27)(19,29)(11,24)(12,25)(14,26)(17,27)(19,29)(11,24)(12,25)(13,24)(14,26)(14,$

 $N_{39} = Group([(1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(8,17,20,27)(10,29)(21,30)(25,31)(27,32),(1,5)(2,9)(3,12)(4,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(21,30)(24,31)(25,31)(27,32),(1,26,10)(3,13)(4,15)(5,16)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(17,27)(19,29)(11,24)(12,25)(14,26)(17,27)(19,29)(11,24)(12,25)(11,24)(12,25)(12$ $N_{40} = Group([(1,2,6,10)(3,18,13,29)(4,815,21)(5,9,16,22)(7,25,19,12)(11,27,24,32)(13,26,25,15)(19,29)(21,30)(24,31)(27,32)(13,26,25,15)(19,30,29,21), \\ (1,5)(2,9)(3,12)(4,12,25)(14,20)(1,23)(13,25)(15,24)(13,25)(14,20)(13,25)(14,20)(14,23)(13,25)(15,24)(15$ $N_{41} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,24)(12,25)(14,26)(17,28)(13,24)(16,25)(14,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(13,24)(16,26)(17,28)(18,29)(21,30)(21,31)(21,28)(21,29)(21,32)(21,3$ $N_{42} = Group([(1,8,6,21)(2,15,10,4)(3,27,13,32)(5,20,16,30)(7,31,19,23)(5,20,16,30)(7,31,19,23)(9,26,22,14)(11,18,24,29)(12,17,25,28), \\ (1,3,5,12)(2,7,9,18)(4,11,14,23)(6,13,16,25)(14,20,16,20)(17,27)(19,29)(11,24)(12,25)(14,20)(17,27)(19,29)(17,24,26,31)(17,27,24,32)(14,20,26,30)(17,31,28,23)] \\ \cong C_{2} \times (C_{4}:C_{4}) \times (C_{4$ $N_{43} = Group([(1,18,6,29)(2,25,10,12)(3,9,13,22)(4,27,15,32)(5,7,16,19)(8,21)(2,30)(25,31)(29,32)(1,29,(23,31)(27,23)(1,29,(23,31)(27,23)(1,29,(23,31)(27,23)(1,29$ $N_{44} = Group([(1,2,6,10)(3,18,13,29)(4,815,21)(5,9,16,22)(7,25,19,12)(11,24)(12,25)(14,26)(17,27)(19,29)(21,30)(24,31)(27,32)(13,24)(16,26)(17,27)(19,29)(15,24,26,31)(27,32)(14,20,26,30)(27,31)(27,32)(17,28)(27,32)(17,28)(18,29)(27,31)(27,32)(18,29)(27,31)(27,32)(18,29)(27,31)(28,31)(27,32)(18,29)(28,31)(28,31)(27,32)(18,29)(28,31)(28,31)(28,32)(18,29)(28,31)(28,32)($ $N_{45} = Group([(1,8,6,21)(2,15,10,4)(3,27,13,32)(5,20,16,30)(7,31,19,23)(9,26,22,14)(11,18,24,29)(12,25)(14,20)(13,26,25,15)(19,20)(19,20)$

 $N_{46} = Group([(1,2,6,10)(3,18,13,29)(4,8,15,21)(5,9,16,22)(7,25,19,12)(11,23)(13,24)(16,26)(17,27)(19,29)(21,30)(23,31)(27,32)(13,24)(16,26)(17,27)(19,29)(15,24,26,31)(21,28,30,32)(14,20,26,30)(17,31,28,23)(14,20,26,26,26,26)(14,20,26,26,26,26)(14,20,26,26,26)(14,20,26,26,26)(14,20,26,26,26)(14,20,26,26,26)(14,20,26,26,26)(14,20,26,26,26,26)(14,20,26,26,26)(14,20,26,26)(14,20,26,26)(14,20,26,26)(14,20,26,26)(14,20,26,26)(14,20$