Trivial source character table of $G \cong C4$. D8 = C4. (C4 x C2) at p = 2:

Trivial source character table of $G \cong C4$. $D8 = C4$. $(C4 \ge C2)$ at $p = 2$:															
Normalisers N_i	N_1	N_2	N_3	N_4	N_5	N_6	N_7	N_8	N_9	N_{10}	N_{11}	N_{12}	N_{13}	N_{14}	N_{15}
p-subgroups of G up to conjugacy in G	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	P_{12}	P_{13}	P_{14}	P_{15}
Representatives $n_j \in N_i$	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a	1a
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 2 \cdot \chi_{11} + 2 \cdot \chi_{12} + 2 \cdot \chi_{13} + 2 \cdot \chi_{14}$	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 2 \cdot \chi_9 + 2 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 2 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14}$	16	0	8	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 2 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	8	0	8	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	0	0	8	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 2 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	8	8	8	0	0	8	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4	4	0	0	4	0	0	4	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4	4	0	0	4	0	0	0	4	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	4	0	0	0	0	0	2	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	4	4	0	4	0	0	0	0	0	0	2	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14}$	2	2	2	2	2	2	2	2	2	0	0	2	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	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	2	2	0	0	0	2	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
$\begin{split} P_1 &= Group([())) \cong 1 \\ P_2 &= Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,27)(28,22)(9,21)(10,30)(11,25)(12,24)(13,31)(17,29)(18,28)(19,27)(18,28)(19,27)(18,28)(19,27)(11,28)(18,29)(20,30)(23,31)(27,27)(28,$	(32), (32) , (32)	$ \hat{)} \cong C (1,5, (1,4, (1,14) (1,4, (1,3, (1,12)), (1,2) $	$\begin{array}{c} 22 \\ 6,16 \\ 6,15 \\ 4)(2,2 \\ 6,15 \\ 4,11 \\ 2,15, \\ 2,5,9, \end{array}$	(2, 8, 20)(3, 20)(3, 3)(2, 8, 6, 13)(2, 8, 6, 13)(2, 8, 6, 13)(3, 6, 20)(2, 8, 6, 10)(3, 10)(3,	10, 21 23)(4 10, 21 , 15, 2 25, 4, 16, 21	1)(3, 1)(3, 1)(3, 1)(3, 1)(3, 1)(3, 1)(3, 1)(2	$egin{array}{c} 11,13\ 5,15)\ 11,13\ 7,8,1\ 7,18,2\ 17,12 \end{array}$	(5, 24)((6, 20))((6	(5, 14, 5)(7, 2)(5, 14, 5)(7, 2)(5, 14, 5)(7, 2)(5, 14, 5)(7, 2)(7, 10, 2)	16,2627)(8,216,261,28)(29,8,2',25,32)(7, 17)(22)(9, 0)(7, 17)(5, 12, 0)(7, 17)(5, 12, 0)(7, 17)(5, 12, 0)(3, 10)(2, 10)((7, 19, 28) (21)(10) (7, 19, 28) (14, 23, 4) (4, 24, 5) (1, 14, 3)	8)(9, 20, 30)(1) 8)(9, 20, 16, 25) 5, 13, 20, 15, 8	$egin{aligned} &0,22,3\ &1,25)\ &0,22,3\ &26,31\ &3,11,1\ &3,26,2\ \end{aligned}$	$\begin{array}{c} 30)(12,23,\\(12,24)(13)\\30)(12,23,\\1)(9,18,20)\\16)(7,20,2)\\20)(7,23,14)\end{array}$
$P_{12} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(23,21)$. ,														, , , ,
$P_{13} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(23,21)$															
$P_{14} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(23,23)$. ,							• • •	· ·		· · ·		, <u> </u>		, ()
$P_{15} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)$															
$\begin{split} N_1 &= Group([(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11), (1,3,1,2) \\ N_2 &= Group([(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11), (1,3,1,3) \\ N_3 &= Group([(1,14)(2,20)(3,23)(4,16)(5,15)(6,26)(7,27)(8,22)(9,21)(10,30)(11,25)(12,24)(13,31)(17,29)(18,28)(19,21)), (1,3,1)(17,29)(18,28)(19,21), (1,3,1)(17,29)(18,28)(19,28)(19,28)(19,28)(19,28)(19,28)(19,28),$	3, 4, 1 3, 4, 1	1, 6, 1 1, 6, 1 , (1, 3)	13,15 13,15 14,11	,24)(2),24)(2),6,13	2, 7, 8, 2, 7, 8, 2, 7, 8, 15, 2	(17, 1) (17, 1) (24)(2, 1)	0, 19, 0, 19, 0, 19, 7, 8, 100	21, 20 21, 20 17, 10	8)(5, 1) 8)(5, 1) 0, 19, 2	12, 14, 12, 14, 12, 14,	23, 16 23, 16 (5, 12,	,25,26 ,25,26 14,23,	(5,31)(9) (5,31)(9) (16,25)	0, 18, 2 0, 18, 2 , 26, 3	(20, 27, 22, 2) (20, 27, 22, 2) (1)(9, 18, 20)

 $(23, 25, 31)(18, 27, 29, 32), (1, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 3, 4, 11, 6, 13, 15, 24)(2, 7, 8, 17, 10, 19, 21, 28, 25, 32)(4, 21, 14, 30, 15, 8, 26, 20)(7, 23, 18, 24, 19, 31, 29, 11)]) \cong C4 \cdot D8 = C4 \cdot (C4 \times C2)$ (29, 30, 32), (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, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 10, 13, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(12, 13, 12, 13, 12)(13, 12, 13, 12)(13, 12, 13, 12)(13, 12)(13,(2, 2), (2, 30, 32), (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, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), $(1, 6)(2, 10)(3, 13)(4, 15)(5, 16)(7, 19)(8, 21)(9, 22)(11, 24)(12, 25)(14, 26)(17, 28)(18, 29)(20, 30)(23, 31)(27, 32)] \cong C4 \cdot D8 = C4 \cdot (C4 \times C2)$ $20, 27, 22, 29, 30, 32), (1, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 6)(2, 10)(3, 13)(4, 15)(5, 16)(7, 19)(8, 21)(9, 22)(11, 24)(12, 25)(14, 26)(17, 28)(18, 29)(20, 30)(23, 31)(27, 32)]) \cong C8 \times C2$ $N_4 = Group([(1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(12,14,23,16,25,26,31)(9,18,20,27,22,29,30,32)]) \cong C4$ $N_5 = Group([(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11),(1,3,4,11,6,13,15,24)(2,7,8,17,10,19,21,28)(5,12,14,23,16,25,26,31)(9,18,20,27,22,29,30,32)]) \cong C4 . D8 = C4 . (C4 x C2)$ $N_{6} = Group([(1,14)(2,20)(3,23)(4,16)(5,15)(6,26)(7,27)(8,22)(9,21)(10,30)(11,25)(12,24)(13,31)(17,29)(18,28)(19,32),(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32),(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11),(1,3,4,11,6,13,15,24)(2,7,8,17,10,19,21,28)(5,12,14,23,16,25,26,31)(9,18,20,27,22,29,30,32)]) \cong C4 . D8 = C4 . (C4 x C2)$ $N_7 = Group([(1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,25)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,25)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,25)(2,8,10,21)(3,11,13,24)(2,12,13,25)(4,14,15,26)(7,12,12,13,25)(4,14,15,26)(7,12,12,13,25)(4,14,15,26)(7,12,12,13,25)(4,14,15,26)(7,12,12,13,25)(4,14,15,26)(7,12,12,12,13,25)(4,14,15,26)(7,12,12,12,13,25)(4,14,15,26)(7,12,12,12,13,25)(4,14,15,26)(7,12,12,12,13,25)(4,14,15,26)(7,12,12,12,13,25)(4,14,15,26)(7,12,12,12,12,13,25)(4,14,15,26)(7,12,12,12,12,12,12,12)(4,14,15,26)(7,12,12,12,12,12)(4,14,15,26)(7,12,12,12,12,12)(4,14,15,26)(7,12,12,12,12)(4,14,15,26)(7,12,12,12,12)(4,14,15,26)(7,12,12,12,12)(4,14,15,26)(7,12,12,12,12)(4,14,15,26)(7,12,12,12)(4,14,15,26)(7,12,12,12)(4,14,15,12)(4,1$ $N_8 = Group([(1,3,4,11,6,13,15,24)(2,7,8,17,10,19,21,28)(5,12,14,23,16,25,26,31)(9,18,29,27,22,29,30,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,21,23,16)(2,12,12,12)(11,24)(12,25)(14,26)(17,28)(18,29,27,22,29,30), (12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,22,23,10)(12,23,25,31)(18,27,29,32), (1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,16)(2,10)(3,13)(4,15)(5,16)(7,19,12,29), (12,12,12,12)(12,12,12)(12,12,12)(12,12,12)(12,12,12)(12,12,12)(12,12)$ $N_{9} = Group([(1,12,15,31,6,25,4,23)(2,18,21,32,10,29,8,27)(3,14,24,5,13,26,11,16)(7,20,28,9,19,30,17,22),(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2)$ $N_{10} = Group([(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11),(1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32)]) \\ \cong C8:C2$ $N_{11} = Group([(1,17,16,32,6,28,5,27)(2,23,22,11,10,31,9,24)(3,21,25,20,13,8,12,30)(4,7,26,29,15,19,14,18),(1,16,6,5)(2,22,10,9)(3,25,13,12)(4,26,15,14)(7,29,19,18)(8,30,21,20)(11,31,24,23)(17,32,28,27),(1,6)(2,10)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)$ $N_{12} = Group([(1,3,4,11,6,13,15,24)(2,7,8,17,10,19,21,28)(5,12,14,23,16,25,26,31)(9,18,27,29,32),(1,5,6,16)(2,9,10,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)]) \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)] \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)] \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)] \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)] \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11)] \cong C4 . D8 = C4 . (C4 x C2) (3,17,12,27,13,28,25,32)(4,21,14,30,15,24,23,12,12,12,12)(3,17,12,27,13,28,25,32)(4,21,14,30,15,24,23,12)(3,17,12,27,13,28,25,32)(4,21,14,30,15,24,23,12)(4,21,14,30,15,24,23,12)(4,21,23,12,23,12)(4,21,14,30,15,24,23,12)(4,21,14,30,15,24,23,12)(4,21,14,30,15,24,23,12)(4,21,23,12,23,12)(4,21,23,12,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23,12)(4,21,23$ $N_{13} = Group([(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11),(1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,25)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,25)(2,8,10,21)(3,11,13,24)(5,14,15,26)(7,11,13,24)(2,12,13,25)(4,14,15,26)(7,11,13,24)(2,12,13,25)(4,14,15,26)(7,11,13,24)(2,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,12,13,25)(4,14,15,26)(7,11,13,24)(2,13,13,12,13)(2,13,13,12,13)(2,13,13,13,13,12,13)(2,13,13,13,13)(2,13,13,13,13)(2,13,13,13)(2,13,13,13$ $N_{14} = Group([(1,17,16,32,6,28,5,27)(2,23,22,11,10,31,9,24)(3,21,25,20,13,8,12,20)(4,7,26,29,15,19,14,18),(1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,19,18,19,29)(8,20,21,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,19,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,19,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(18,27,29,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,19,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,17,19,28)(9,20,21,30)(11,23,24,31)(17,27,28,32),(1,4,6,15)(2,8,10,21)(3,11,13,24)(5,14,16,26)(7,19,18,29)(2,3,12,13,25)(4,14,15,26)(7,19,18,19,29)(3,12,12,13,25)(4,14,15,26)(7,19,18,19,19)(3,11,13,24)(3,12,13,12,12,13,12,12)(3,11,13,24)(3,12,13,12,12)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3,11,13,24)(3$ $N_{15} = Group([(1,2,5,9,6,10,16,22)(3,17,12,27,13,28,25,32)(4,21,14,30,15,8,26,20)(7,23,18,24,19,31,29,11),(1,3,4,11,6,13,15,24)(2,7,8,17,10,19,21,28)(3,12,13,25)(4,14,15,26)(7,17,19,28)(9,20,22,30)(12,23,25,31)(12,23,23,31$

 $(26, 29, 15, 19, 14, 18), (1, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32)]) \cong \mathbb{C}8$ $23, 25, 31)(18, 27, 29, 32), (1, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 3, 4, 11, 6, 13, 15, 24)(2, 7, 8, 17, 10, 19, 21, 28)(5, 12, 14, 23, 16, 25, 26, 31)(9, 18, 20, 27, 22, 29, 30, 32)]) \cong C8 \times C2$ $23, 25, 31)(18, 27, 29, 32), (1, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 2, 5, 9, 6, 10, 16, 22)(3, 17, 12, 27, 13, 28, 25, 32)(4, 21, 14, 30, 15, 8, 26, 20)(7, 23, 18, 24, 19, 31, 29, 11)]) \cong C8:C2$ $(23, 25, 31)(18, 27, 29, 32), (1, 5, 6, 16)(2, 9, 10, 22)(3, 12, 13, 25)(4, 14, 15, 26)(7, 18, 19, 29)(8, 20, 21, 30)(11, 23, 24, 31)(17, 27, 28, 32), (1, 17, 16, 32, 6, 28, 5, 27)(2, 23, 22, 11, 10, 31, 9, 24)(3, 21, 25, 20, 13, 8, 12, 30)(4, 7, 26, 29, 15, 19, 14, 18)]) \cong C8:C2$

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

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

 $(13, 31)(17, 29)(18, 28)(19, 32)]) \cong C2 \ge C2$

 $(3, 25, 31)(18, 27, 29, 32)) \cong C4$

1,31)(17,	27, 28	$(32)]) \cong 0$	C4

	1a	8a	8b	4a	4b	2a	8c	8d	8e	8f	2b	4c	8g	8h
χ_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
χ_3	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
χ_5	1	-E(4)	-1	1	-1	1	E(4)	E(4)	1	-1	-1	-1	-E(4)	1
χ_6	1	E(4)	-1	1	-1	1	-E(4)	-E(4)	1	-1	-1	-1	E(4)	1
χ_7	1	-E(4)	1	1	-1	1	-E(4)	E(4)	-1	1	-1	-1	E(4)	-1
χ_8	1	E(4)	1	1	-1	1	E(4)	-E(4)	-1	1	-1	-1	-E(4)	-1
χ_9	2	0	0	-2	-2	2	0	0	0	0	2	-2	0	0
χ_{10}	2	0	0	-2	2	2	0	0	0	0	-2	2	0	0
χ_{11}	2	0	$-E(8) - E(8)^3$	0	-2 * E(4)	-2	0	0	$-E(8) + E(8)^3$	$E(8) + E(8)^3$	0	2 * E(4)	0	$E(8) - E(8)^3$
χ_{12}	2	0	$-E(8) - E(8)^3$	0	2 * E(4)	-2	0	0	$E(8) - E(8)^3$	$E(8) + E(8)^3$	0	-2 * E(4)	0	$-E(8) + E(8)^3$
χ_{13}	2	0	$E(8) + E(8)^3$	0	-2 * E(4)	-2	0	0	$E(8) - E(8)^3$	$-E(8) - E(8)^3$	0	2 * E(4)	0	$-E(8) + E(8)^3$
χ_{14}	2	0	$E(8) + E(8)^3$	0	2 * E(4)	-2	0	0	$-E(8) + E(8)^3$	$-E(8) - E(8)^3$	0	-2 * E(4)	0	$E(8) - E(8)^3$