

The group  $G$  is isomorphic to the group labelled by [ 24, 11 ] in the Small Groups library. Ordinary character table of  $G \cong C_2 \times Q_8$ :

$1a$	$4a$	$4b$	$3a$	$2a$	$4c$	$12a$	$12b$	$3b$	$6a$	$12c$	$12d$	$12e$	$6b$	$12f$
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	1	1	-1	1	-1	1	1	-1	1	-1	1	-1
1	-1	-1	$E(3)^2$	1	1	$-E(3)^2$	$-E(3)^2$	$E(3)$	$E(3)^2$	$E(3)^2$	$-E(3)$	$-E(3)$	$E(3)$	$E(3)$
1	-1	-1	$E(3)$	1	1	$-E(3)$	$-E(3)$	$E(3)^2$	$E(3)$	$E(3)$	$-E(3)^2$	$-E(3)^2$	$E(3)^2$	$E(3)^2$
1	-1	1	$E(3)^2$	1	-1	$-E(3)^2$	$E(3)^2$	$E(3)$	$E(3)^2$	$-E(3)^2$	$-E(3)$	$E(3)$	$E(3)$	$-E(3)$
1	-1	1	$E(3)$	1	-1	$-E(3)$	$E(3)$	$E(3)^2$	$E(3)$	$-E(3)$	$-E(3)^2$	$E(3)^2$	$E(3)^2$	$-E(3)^2$
1	1	-1	$E(3)^2$	1	-1	$E(3)^2$	$-E(3)^2$	$E(3)$	$E(3)^2$	$-E(3)^2$	$E(3)$	$-E(3)$	$E(3)$	$-E(3)$
1	1	-1	$E(3)$	1	-1	$E(3)$	$-E(3)$	$E(3)^2$	$E(3)$	$-E(3)$	$E(3)^2$	$-E(3)^2$	$E(3)^2$	$-E(3)^2$
1	1	1	$E(3)^2$	1	1	$E(3)^2$	$E(3)^2$	$E(3)$	$E(3)^2$	$E(3)^2$	$E(3)$	$E(3)$	$E(3)$	$E(3)$
1	1	1	$E(3)$	1	1	$E(3)$	$E(3)$	$E(3)^2$	$E(3)$	$E(3)$	$E(3)^2$	$E(3)^2$	$E(3)^2$	$E(3)^2$
2	0	0	2	-2	0	0	0	2	-2	0	0	0	-2	0
2	0	0	$2 * E(3)^2$	-2	0	0	0	$2 * E(3)$	$-2 * E(3)^2$	0	0	0	$-2 * E(3)$	0
2	0	0	$2 * E(3)$	-2	0	0	0	$2 * E(3)^2$	$-2 * E(3)$	0	0	0	$-2 * E(3)^2$	0

Trivial source character table of  $G \cong C_3 \times Q_8$  at  $p = 2$ :

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

$$P_2 = \text{Group}([(1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24)]) \cong C_2$$

$$P_3 = \text{Group}([(1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24)]) \cong 0$$

$$P_4 = Group([(1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20)]) \cong C_4$$

$$P_5 = Group([(1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 14, 5, 6)(2, 3, 8, 10)(4, 21, 12, 13)(7, 9, 16, 18)(11, 24, 19, 20)(15, 17, 22, 23)]) \cong C4$$

$$P_6 = Group([(1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24), (1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20)]) \cong Q_8$$

$$N_1 = \text{Group}([(1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20), (1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24), (1, 4, 11)(2, 7, 15)(3, 9, 17)(5, 12, 19)(6, 13, 20)(8, 16, 22)(10, 18, 23)(14, 21, 24), (1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24)]) \cong C_3 \times Q_8$$

$$N_2 = \text{Group}([(1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20), (1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24), (1, 4, 11)(2, 7, 15)(3, 9, 17)(5, 12, 19)(6, 13, 20)(8, 16, 22)(10, 18, 23)(14, 21, 24), (1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24)]) \cong C_3 \times Q_8$$

$$N_3 = Group([(1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24), (1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20), (1, 4, 11)(2, 7, 15)(3, 9, 17)(5, 12, 19)(6, 13, 20)(8, 16, 22)(10, 18, 23)(14, 21, 24)]) \cong C3 \times Q8$$

$$N_4 = Group([(1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20), (1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24)], (1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24), (1, 4, 11)(2, 7, 15)(3, 9, 17)(5, 12, 19)(6, 13, 20)(8, 16, 22)(10, 18, 23)(14, 21, 24)]) \cong C3 \times Q8$$

$$N_5 = Group([(1, 14, 5, 6)(2, 3, 8, 10)(4, 21, 12, 13)(7, 9, 16, 18)(11, 24, 19, 20)(15, 17, 22, 23), (1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(7, 16)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20), (1, 4, 11)(2, 7, 15)(3, 9, 17)(5, 12, 19)(6, 13, 20)(8, 16, 22)(10, 18, 23)(14, 21, 24)]) \cong C3 \times Q8$$

$$N_6 = Group([(1, 2, 5, 8)(3, 14, 10, 6)(4, 7, 12, 16)(9, 21, 18, 13)(11, 15, 19, 22)(17, 24, 23, 20), (1, 3, 5, 10)(2, 6, 8, 14)(4, 9, 12, 18)(7, 13, 16, 21)(11, 17, 19, 23)(15, 20, 22, 24), (1, 5)(2, 8)(3, 10)(4, 12)(6, 14)(9, 18)(11, 19)(13, 21)(15, 22)(17, 23)(20, 24), (1, 4, 11)(2, 7, 15)(3, 9, 17)(5, 12, 19)(6, 13, 20)(8, 16, 22)(10, 18, 23)(14, 21, 24)]) \cong C3 \times Q8$$