

The group  $G$  is isomorphic to the group labelled by [ 16, 2 ] in the Small Groups library.

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

	1a	4a	2a	4b	4c	4d	4e	4f	2b	4g	2c	4h	4i	4j	4k	4l
$\chi_1$	1	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	1	-1
$\chi_3$	1	1	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	-1	1
$\chi_5$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$
$\chi_6$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$
$\chi_7$	1	$E(4)$	-1	$-E(4)$	-1	$-E(4)$	1	$E(4)$	1	$E(4)$	-1	$-E(4)$	-1	$-E(4)$	1	$E(4)$
$\chi_8$	1	$-E(4)$	-1	$E(4)$	-1	$E(4)$	1	$-E(4)$	1	$-E(4)$	-1	$E(4)$	-1	$E(4)$	1	$-E(4)$
$\chi_9$	1	1	1	1	$E(4)$	$E(4)$	$E(4)$	$E(4)$	-1	-1	-1	-1	$-E(4)$	$-E(4)$	$-E(4)$	$-E(4)$
$\chi_{10}$	1	-1	1	-1	$E(4)$	$-E(4)$	$E(4)$	$-E(4)$	-1	1	-1	1	$-E(4)$	$E(4)$	$-E(4)$	$E(4)$
$\chi_{11}$	1	1	1	1	$-E(4)$	$-E(4)$	$-E(4)$	$-E(4)$	-1	-1	-1	-1	$E(4)$	$E(4)$	$E(4)$	$E(4)$
$\chi_{12}$	1	-1	1	-1	$-E(4)$	$E(4)$	$-E(4)$	$E(4)$	-1	1	-1	1	$E(4)$	$-E(4)$	$E(4)$	$-E(4)$
$\chi_{13}$	1	$E(4)$	-1	$-E(4)$	$E(4)$	-1	$-E(4)$	1	-1	$-E(4)$	1	$E(4)$	$-E(4)$	1	$E(4)$	-1
$\chi_{14}$	1	$-E(4)$	-1	$E(4)$	$E(4)$	1	$-E(4)$	-1	-1	$E(4)$	1	$-E(4)$	$-E(4)$	-1	$E(4)$	1
$\chi_{15}$	1	$E(4)$	-1	$-E(4)$	$-E(4)$	1	$E(4)$	-1	-1	$-E(4)$	1	$E(4)$	$E(4)$	-1	$-E(4)$	1
$\chi_{16}$	1	$-E(4)$	-1	$E(4)$	$-E(4)$	-1	$E(4)$	1	-1	$E(4)$	1	$-E(4)$	$E(4)$	1	$-E(4)$	-1

Trivial source character table of  $G \cong C4 \times C4$  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
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16}$	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	8	0	8	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 1 \cdot \chi_{16}$	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	4	0	4	0	0	4	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	4	0	4	0	0	0	4	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	4	4	0	0	0	0	0	4	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	4	4	0	0	0	0	0	0	4	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 1 \cdot \chi_{14} + 1 \cdot \chi_{15} + 0 \cdot \chi_{16}$	4	0	0	4	0	0	0	0	0	4	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 1 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 1 \cdot \chi_{16}$	4	0	0	4	0	0	0	0	0	0	4	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	2	2	2	2	2	2	2	0	0	0	0	2	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	2	2	2	2	2	0	0	2	2	0	0	0	2	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	2	2	2	2	2	0	0	0	0	2	2	0	0	2	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16}$	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

$$P_1 = \text{Group}([()]) \cong 1$$

$$P_2 = \text{Group}([(1, 3)(2, 4)]) \cong C2$$

$$P_3 = \text{Group}([(5, 7)(6, 8)]) \cong C2$$

$$P_4 = \text{Group}([(1, 3)(2, 4)(5, 7)(6, 8)]) \cong C2$$

$$P_5 = \text{Group}([(5, 7)(6, 8), (1, 3)(2, 4)]) \cong C2 \times C2$$

$$P_6 = \text{Group}([(5, 6, 7, 8), (5, 7)(6, 8)]) \cong C4$$

$$P_7 = \text{Group}([(1, 3)(2, 4)(5, 6, 7, 8), (5, 7)(6, 8)]) \cong C4$$

$$P_8 = \text{Group}([(1, 2, 3, 4), (1, 3)(2, 4)]) \cong C4$$

$$P_9 = \text{Group}([(1, 2, 3, 4)(5, 7)(6, 8), (1, 3)(2, 4)]) \cong C4$$

$$P_{10} = \text{Group}([(1, 2, 3, 4)(5, 6, 7, 8), (1, 3)(2, 4)(5, 7)(6, 8)]) \cong C4$$

$$P_{11} = \text{Group}([(1, 4, 3, 2)(5, 6, 7, 8), (1, 3)(2, 4)(5, 7)(6, 8)]) \cong C4$$

$$P_{12} = \text{Group}([(5, 7)(6, 8), (1, 3)(2, 4), (5, 6, 7, 8)]) \cong C4 \times C2$$

$$P_{13} = \text{Group}([(5, 7)(6, 8), (1, 3)(2, 4), (1, 2, 3, 4)]) \cong C4 \times C2$$

$$P_{14} = \text{Group}([(5, 7)(6, 8), (1, 3)(2, 4), (1, 2, 3, 4)(5, 6, 7, 8)]) \cong C4 \times C2$$

$$P_{15} = \text{Group}([(5, 7)(6, 8), (1, 3)(2, 4), (5, 6, 7, 8), (1, 2, 3, 4)]) \cong C4 \times C4$$

$$N_1 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_2 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_3 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_4 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_5 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_6 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_7 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_8 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_9 = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_{10} = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_{11} = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_{12} = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_{13} = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_{14} = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$

$$N_{15} = \text{Group}([(1, 2, 3, 4), (5, 6, 7, 8)]) \cong C4 \times C4$$