

The group  $G$  is isomorphic to the group labelled by [ 720, 765 ] in the Small Groups library.

Ordinary character table of  $G \cong A6 \cdot C2$ :

	1a	2a	3a	4a	4b	5a	8a	8b
$\chi_1$	1	1	1	1	1	1	1	1
$\chi_2$	1	1	1	1	-1	1	-1	-1
$\chi_3$	9	1	0	1	-1	-1	1	1
$\chi_4$	9	1	0	1	1	-1	-1	-1
$\chi_5$	10	2	1	-2	0	0	0	0
$\chi_6$	10	-2	1	0	0	0	$E(8) + E(8)^{\wedge} 3$	$-E(8) - E(8)^{\wedge} 3$
$\chi_7$	10	-2	1	0	0	0	$-E(8) - E(8)^{\wedge} 3$	$E(8) + E(8)^{\wedge} 3$
$\chi_8$	16	0	-2	0	0	1	0	0

Trivial source character table of  $G \cong A6 \cdot C2$  at  $p = 2$

<i>Normalisers</i> $N_i$	$N_1$		$N_2$	$N_3$	$N_4$	$N_5$		$N_6$	$N_7$	$N_8$	$N_9$
<i>p</i> - subgroups of $G$ up to conjugacy in $G$	$P_1$		$P_2$	$P_3$	$P_4$	$P_5$		$P_6$	$P_7$	$P_8$	$P_9$
<i>Representatives</i> $n_j \in N_i$	1a	3a	5a	1a	1a	1a	3a	1a	1a	1a	1a
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5 + 2 \cdot \chi_6 + 2 \cdot \chi_7 + 0 \cdot \chi_8$	80	8	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8$	48	3	-2	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8$	16	-2	1	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 2 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	40	4	0	8	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	20	2	0	4	2	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	20	2	0	4	0	4	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	12	3	2	4	0	0	2	2	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	28	1	-2	4	0	0	2	-1	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	10	1	0	2	2	2	0	0	2	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	10	1	0	2	0	2	0	0	0	2	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	2	2	2	2	0	2	2	2	0	0	2
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8$	1	1	1	1	1	1	1	1	1	1	1

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

$$P_2 = \text{Group}([(1, 8)(2, 3)(4, 7)(9, 10)]) \cong C2$$

$$P_3 = \text{Group}([(1, 3, 8, 2)(4, 10, 7, 9), (1, 8)(2, 3)(4, 7)(9, 10)]) \cong C4$$

$$P_4 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (1, 8)(2, 3)(4, 7)(9, 10)]) \cong C4$$

$$P_5 = \text{Group}([(1, 8)(2, 3)(4, 7)(9, 10), (1, 8)(2, 7)(3, 4)(5, 6)]) \cong C2 \times C2$$

$$P_6 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (1, 3, 8, 2)(4, 10, 7, 9), (1, 8)(2, 3)(4, 7)(9, 10)]) \cong Q8$$

$$P_7 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (1, 8)(2, 3)(4, 7)(9, 10), (1, 4, 10, 2, 8, 7, 9, 3)(5, 6)]) \cong C8$$

$$P_8 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (1, 8)(2, 3)(4, 7)(9, 10), (1, 8)(2, 7)(3, 4)(5, 6)]) \cong D8$$

$$P_9 = \text{Group}([(1, 3, 8, 2)(4, 10, 7, 9), (1, 8)(2, 3)(4, 7)(9, 10), (1, 8)(2, 7)(3, 4)(5, 6), (1, 10, 8, 9)(2, 7, 3, 4)]) \cong QD16$$

$$N_1 = \text{Group}([(2, 3)(4, 6)(5, 7)(8, 9), (1, 2)(3, 4, 7, 9, 10, 8, 6, 5)]) \cong A6 \cdot C2$$

$$N_2 = \text{Group}([(2, 4)(3, 7)(5, 6)(9, 10), (1, 8)(2, 3)(4, 7)(9, 10), (1, 2, 8, 3)(4, 9, 7, 10), (1, 10, 8, 9)(2, 7, 3, 4)]) \cong QD16$$

$$N_3 = \text{Group}([(1, 3, 8, 2)(4, 10, 7, 9), (1, 8)(2, 3)(4, 7)(9, 10), (1, 10, 8, 9)(2, 7, 3, 4)]) \cong Q8$$

$$N_4 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (2, 4)(3, 7)(5, 6)(9, 10), (1, 8)(2, 3)(4, 7)(9, 10), (1, 7, 8, 4)(2, 9, 3, 10)]) \cong QD16$$

$$N_5 = \text{Group}([(1, 8)(2, 3)(4, 7)(9, 10), (1, 6)(3, 4)(5, 8)(9, 10), (1, 10)(4, 7)(5, 6)(8, 9), (1, 8)(2, 7)(3, 4)(5, 6)]) \cong S4$$

$$N_6 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (2, 4)(3, 7)(5, 6)(9, 10), (1, 3, 8, 2)(4, 10, 7, 9), (1, 8)(2, 3)(4, 7)(9, 10)]) \cong QD16$$

$$N_7 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (2, 4)(3, 7)(5, 6)(9, 10), (1, 8)(2, 3)(4, 7)(9, 10), (1, 4, 10, 2, 8, 7, 9, 3)(5, 6)]) \cong QD16$$

$$N_8 = \text{Group}([(1, 9, 8, 10)(2, 4, 3, 7), (2, 4)(3, 7)(5, 6)(9, 10), (1, 8)(2, 3)(4, 7)(9, 10), (1, 7, 10, 3, 8, 4, 9, 2)(5, 6), (1, 8)(2, 7)(3, 4)(5, 6)]) \cong QD16$$

$$N_9 = \text{Group}([(2, 4)(3, 7)(5, 6)(9, 10), (1, 3, 8, 2)(4, 10, 7, 9), (1, 8)(2, 3)(4, 7)(9, 10), (1, 8)(2, 7)(3, 4)(5, 6), (1, 10, 8, 9)(2, 7, 3, 4)]) \cong QD16$$