

The group  $G$  is isomorphic to the alternating group A7.

Ordinary character table of  $G \cong \text{A7}$ :

	1a	2a	3a	3b	4a	5a	6a	7a	7b
$\chi_1$	1	1	1	1	1	1	1	1	1
$\chi_2$	6	2	3	0	0	1	-1	-1	-1
$\chi_3$	10	-2	1	1	0	0	1	$E(7) + E(7)^2 + E(7)^4$	$E(7)^3 + E(7)^5 + E(7)^6$
$\chi_4$	10	-2	1	1	0	0	1	$E(7)^3 + E(7)^5 + E(7)^6$	$E(7) + E(7)^2 + E(7)^4$
$\chi_5$	14	2	2	-1	0	-1	2	0	0
$\chi_6$	14	2	-1	2	0	-1	-1	0	0
$\chi_7$	15	-1	3	0	-1	0	-1	1	1
$\chi_8$	21	1	-3	0	-1	1	1	0	0
$\chi_9$	35	-1	-1	-1	1	0	-1	0	0

Trivial source character table of  $G \cong \text{A7}$  at  $p = 7$ :

Normalisers $N_i$	$N_1$							$N_2$		
$p$ -subgroups of $G$ up to conjugacy in $G$	$P_1$							$P_2$		
Representatives $n_j \in N_i$	1a	2a	3a	6a	3b	4a	5a	1a	3a	3b
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	21	1	6	-2	0	-1	1	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	3	4	0	1	1	2	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	14	2	2	2	-1	0	-1	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	35	-5	5	1	2	-1	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9$	35	-1	-1	-1	-1	1	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	14	2	-1	-1	2	0	-1	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$	21	1	-3	1	0	-1	1	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	1	1	1	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	15	-1	3	-1	0	-1	0	1	$E(3)^2$	$E(3)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	15	-1	3	-1	0	-1	0	1	$E(3)$	$E(3)^2$

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

$$P_2 = \text{Group}([(1, 4, 7, 6, 2, 5, 3)]) \cong \text{C7}$$

$$N_1 = \text{AlternatingGroup}([1..7]) \cong \text{A7}$$

$$N_2 = \text{Group}([(1, 4, 7, 6, 2, 5, 3), (2, 4, 7)(3, 5, 6)]) \cong \text{C7} : \text{C3}$$