

The group G is isomorphic to the group labelled by [504, 156] in the Small Groups library.

Ordinary character table of $G \cong \text{PSL}(2,8)$:

	1a	2a	3a	7a	7b	7c	9a	9b	9c
χ_1	1	1	1	1	1	1	1	1	1
χ_2	7	-1	-2	0	0	0	1	1	1
χ_3	7	-1	1	0	0	0	$E(9)^2 + E(9)^4 + E(9)^5 + E(9)^7$	$-E(9)^2 - E(9)^7$	$-E(9)^4 - E(9)^5$
χ_4	7	-1	1	0	0	0	$-E(9)^4 - E(9)^5$	$E(9)^2 + E(9)^4 + E(9)^5 + E(9)^7$	$-E(9)^2 - E(9)^7$
χ_5	7	-1	1	0	0	0	$-E(9)^2 - E(9)^7$	$-E(9)^4 - E(9)^5$	$E(9)^2 + E(9)^4 + E(9)^5 + E(9)^7$
χ_6	8	0	-1	1	1	1	-1	-1	-1
χ_7	9	1	0	$E(7) + E(7)^6$	$E(7)^2 + E(7)^5$	$E(7)^3 + E(7)^4$	0	0	0
χ_8	9	1	0	$E(7)^3 + E(7)^4$	$E(7) + E(7)^6$	$E(7)^2 + E(7)^5$	0	0	0
χ_9	9	1	0	$E(7)^2 + E(7)^5$	$E(7)^3 + E(7)^4$	$E(7) + E(7)^6$	0	0	0

Trivial source character table of $G \cong \text{PSL}(2,8)$ 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				9a	9c		9b	1a	2a
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9$	28	4	1				1	1		1	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9$	35	3	-1				-1	-1		-1	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	-1	-2				1	1		1	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	-1	1	$E(9)^2 + E(9)^4 + E(9)^5 + E(9)^7$			$-E(9)^4 - E(9)^5$		$-E(9)^2 - E(9)^7$		0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	-1	1	$-E(9)^2 - E(9)^7$			$E(9)^2 + E(9)^4 + E(9)^5 + E(9)^7$		$-E(9)^4 - E(9)^5$		0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	7	-1	1	$-E(9)^4 - E(9)^5$			$-E(9)^2 - E(9)^7$		$E(9)^2 + E(9)^4 + E(9)^5 + E(9)^7$		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
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	8	0	-1				-1		-1		1	-1

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

$$P_2 = \text{Group}([(3, 4, 6, 9, 5, 8, 7)]) \cong C7$$

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

$$N_2 = \text{Group}([(3, 4, 6, 9, 5, 8, 7), (1, 2)(4, 7)(5, 9)(6, 8)]) \cong D14$$