

The group G is isomorphic to the group labelled by [120, 5] in the Small Groups library.

Ordinary character table of $G \cong \text{SL}(2,5)$:

	1a	2a	4a	3a	6a	5a	10a	5b	10b
χ_1	1	1	1	1	1	1	1	1	1
χ_2	3	3	-1	0	0	$-E(5) - E(5)^4$	$-E(5) - E(5)^4$	$-E(5)^2 - E(5)^3$	$-E(5)^2 - E(5)^3$
χ_3	3	3	-1	0	0	$-E(5)^2 - E(5)^3$	$-E(5)^2 - E(5)^3$	$-E(5) - E(5)^4$	$-E(5) - E(5)^4$
χ_4	4	4	0	1	1	-1	-1	-1	-1
χ_5	5	5	1	-1	-1	0	0	0	0
χ_6	2	-2	0	-1	1	$E(5) + E(5)^4$	$-E(5) - E(5)^4$	$E(5)^2 + E(5)^3$	$-E(5)^2 - E(5)^3$
χ_7	2	-2	0	-1	1	$E(5)^2 + E(5)^3$	$-E(5)^2 - E(5)^3$	$E(5) + E(5)^4$	$-E(5) - E(5)^4$
χ_8	4	-4	0	1	-1	-1	1	-1	1
χ_9	6	-6	0	0	0	1	-1	1	-1

Trivial source character table of $G \cong \text{SL}(2,5)$ at $p = 5$:

Normalisers N_i	N_1					N_2			
	P_1					P_2			
Representatives $n_j \in N_i$	1a	3a	4a	6a	2a	1a	4a	2a	4b
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	5	2	1	2	5	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	10	1	-2	1	10	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	5	-1	1	-1	5	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9$	10	-2	0	2	-10	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9$	10	1	0	-1	-10	0	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
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	6	0	-2	0	6	1	-1	1	-1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9$	6	0	0	0	-6	1	$E(4)$	-1	$-E(4)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9$	6	0	0	0	-6	1	$-E(4)$	-1	$E(4)$

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

$$P_2 = \text{Group}([(2, 8, 11, 15, 7)(3, 9, 16, 6, 4)(10, 18, 23, 19, 14)(12, 17, 21, 20, 13)]) \cong C5$$

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

$$N_2 = \text{Group}([(2, 8, 11, 15, 7)(3, 9, 16, 6, 4)(10, 18, 23, 19, 14)(12, 17, 21, 20, 13), (1, 5)(2, 3, 11, 16, 7, 4, 8, 9, 15, 6)(10, 17, 23, 20, 14, 12, 18, 21, 19, 13)(22, 24), (1, 22, 5, 24)(2, 10, 4, 12)(3, 13, 8, 14)(6, 17, 7, 18)(9, 20, 11, 19)(15, 23, 16, 21)]) \cong C5 : C4$$