

The group  $G$  is isomorphic to the group labelled by [ 240, 90 ] in the Small Groups library.

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

	1a	2a	4a	3a	6a	5a	10a	2b	8a	8b	6b	6c
$\chi_1$	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
$\chi_3$	6	6	-2	0	0	1	1	0	0	0	0	0
$\chi_4$	4	4	0	1	1	-1	-1	2	0	0	-1	-1
$\chi_5$	4	4	0	1	1	-1	-1	-2	0	0	1	1
$\chi_6$	5	5	1	-1	-1	0	0	1	-1	-1	1	1
$\chi_7$	5	5	1	-1	-1	0	0	-1	1	1	-1	-1
$\chi_8$	4	-4	0	-2	2	-1	1	0	0	0	0	0
$\chi_9$	4	-4	0	1	-1	-1	1	0	0	0	$E(3) - E(3)^2$	$-E(3) + E(3)^2$
$\chi_{10}$	4	-4	0	1	-1	-1	1	0	0	0	$-E(3) + E(3)^2$	$E(3) - E(3)^2$
$\chi_{11}$	6	-6	0	0	0	1	-1	0	$E(8) + E(8)^3$	$-E(8) - E(8)^3$	0	0
$\chi_{12}$	6	-6	0	0	0	1	-1	0	$-E(8) - E(8)^3$	$E(8) + E(8)^3$	0	0

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

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	2b	3a	8a	6b	4a	8b	6c	6a	2a	1a	8a	4b	2a	8d	8c	4a	8b
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	5	3	2	1	0	1	1	0	2	5	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	5	-3	2	-1	0	1	-1	0	2	5	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	10	2	1	0	-1	-2	0	-1	1	10	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	10	-2	1	0	1	-2	0	1	1	10	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	5	1	-1	-1	1	1	-1	1	-1	5	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	5	-1	-1	1	-1	1	1	-1	-1	5	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	10	0	-2	$E(8) + E(8)^3$	0	0	$-E(8) - E(8)^3$	0	2	-10	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	10	0	-2	$-E(8) - E(8)^3$	0	0	$E(8) + E(8)^3$	0	2	-10	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	10	0	1	$-E(8) - E(8)^3$	$E(3) - E(3)^2$	0	$E(8) + E(8)^3$	$-E(3) + E(3)^2$	-1	-10	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	10	0	1	$E(8) + E(8)^3$	$-E(3) + E(3)^2$	0	$-E(8) - E(8)^3$	$E(3) - E(3)^2$	-1	-10	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	-1	1	-1	-1	1	-1	-1	1	1	1	-1	1	-1	-1	1	-1	-1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	0	0	-2	0	0	0	6	1	$-E(4)$	-1	1	$E(4)$	$-E(4)$	-1	$E(4)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	0	0	-2	0	0	0	6	1	$E(4)$	-1	1	$-E(4)$	$E(4)$	-1	$-E(4)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	$E(8) + E(8)^3$	0	0	$-E(8) - E(8)^3$	0	0	-6	1	$E(8)^3$	$-E(4)$	-1	$E(8)$	$-E(8)^3$	$E(4)$	$-E(8)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	6	0	0	$-E(8) - E(8)^3$	0	0	$E(8) + E(8)^3$	0	0	-6	1	$-E(8)^3$	$-E(4)$	-1	$-E(8)$	$E(8)^3$	$E(4)$	$E(8)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	$E(8) + E(8)^3$	0	0	$-E(8) - E(8)^3$	0	0	-6	1	$E(8)$	$E(4)$	-1	$E(8)^3$	$-E(8)$	$-E(4)$	$-E(8)^3$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	6	0	0	$-E(8) - E(8)^3$	0	0	$E(8) + E(8)^3$	0	0	-6	1	$-E(8)$	$E(4)$	-1	$-E(8)^3$	$E(8)$	$-E(4)$	$E(8)^3$

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

$P_2 = \text{Group}([(1, 14, 15, 18, 27)(2, 26, 36, 22, 29)(3, 30, 25, 16, 8)(4, 34, 7, 20, 21)(5, 38, 23, 24, 32)(6, 40, 19, 37, 17)(9, 31, 39, 11, 13)(10, 12, 33, 35, 28)]) \cong \text{C}5$

$N_1 = \text{Group}([(2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 2, 5, 10, 19, 13, 7, 3)(4, 8, 15, 26, 24, 28, 17, 9)(6, 11, 21, 30, 18, 29, 23, 12)(14, 22, 32, 33, 37, 39, 34, 25)(16, 27, 36, 38, 35, 40, 31, 20)]) \cong \text{SL}(2,5) : \text{C}2$

$N_2 = \text{Group}([(1, 14, 15, 18, 27)(2, 26, 36, 22, 29)(3, 30, 25, 16, 8)(4, 34, 7, 20, 21)(5, 38, 23, 24, 32)(6, 40, 19, 37, 17)(9, 31, 39, 11, 13)(10, 12, 33, 35, 28), (1, 2, 5, 10, 19, 13, 7, 3)(4, 8, 15, 26, 24, 28, 17, 9)(6, 11, 21, 30, 18, 29, 23, 12)(14, 22, 32, 33, 37, 39, 34, 25)(16, 27, 36, 38, 35, 40, 31, 20)]) \cong \text{C}5 : \text{C}8$