

The group G is isomorphic to the group labelled by [240, 90] in the Small Groups library.
 Ordinary character table of $G \cong \text{SL}(2,5) : \text{C}2$:

	$1a$	$2a$	$4a$	$3a$	$6a$	$5a$	$10a$	$2b$	$8a$	$8b$	$6b$	$6c$
χ_1	1	1	1	1	1	1	1	1	1	1	1	1
χ_2	1	1	1	1	1	1	1	-1	-1	-1	-1	-1
χ_3	6	6	-2	0	0	1	1	0	0	0	0	0
χ_4	4	4	0	1	1	-1	-1	2	0	0	-1	-1
χ_5	4	4	0	1	1	-1	-1	-2	0	0	1	1
χ_6	5	5	1	-1	-1	0	0	1	-1	-1	1	1
χ_7	5	5	1	-1	-1	0	0	-1	1	1	-1	-1
χ_8	4	-4	0	-2	2	-1	1	0	0	0	0	0
χ_9	4	-4	0	1	-1	-1	1	0	0	0	$E(3) - E(3)^2$	$-E(3) + E(3)^2$
χ_{10}	4	-4	0	1	-1	-1	1	0	0	0	$-E(3) + E(3)^2$	$E(3) - E(3)^2$
χ_{11}	6	-6	0	0	0	1	-1	0	$E(8) + E(8)^3$	$-E(8) - E(8)^3$	0	0
χ_{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 $p = 2$:

Normalisers N_i	N_1		N_2		N_3			N_4	N_5	N_6	N_7	N_8	N_9
p -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
Representatives $n_j \in N_i$	$1a$	$3a$	$5a$	$1a$	$3a$	$5a$	$1a$	$3a$	$1a$	$3a$	$1a$	$3a$	$1a$
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 2 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 2 \cdot \chi_{11} + 2 \cdot \chi_{12}$	48	0	8	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	32	-4	2	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	16	4	-4	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 2 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	24	0	4	24	0	4	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	16	-2	1	16	-2	1	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	2	-2	8	2	-2	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	24	0	4	0	0	0	2	2	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	2	-2	0	0	0	2	$2 * E(3)$	$2 * E(3)^2$	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	2	-2	0	0	0	2	$2 * E(3)^2$	$2 * E(3)$	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	12	0	2	12	0	2	2	2	2	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	1	-1	4	1	-1	2	-1	2	-1	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	12	0	2	12	0	2	0	0	4	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	1	6	0	1	2	2	2	2	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	2	2	2	2	2	0	0	2	0	2	2	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	10	-2	0	10	-2	0	0	0	2	0	2	-1	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	1	6	0	1	0	0	2	0	0	2	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

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

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

$P_3 = \text{Group}(\{(2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34)\}) \cong \text{C}2$

$P_4 = \text{Group}(\{(1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34)\}) \cong \text{C}2 \times \text{C}2$

$P_5 = \text{Group}(\{(1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 32, 19, 34)(2, 28, 13, 8)(3, 29, 10, 11)(4, 14, 24, 37)(5, 40, 7, 27)(6, 20, 18, 38)(9, 16, 26, 35)(12, 39, 30, 22)(15, 23, 17, 21)(25, 36, 33, 31)\}) \cong \text{C}4$

$P_6 = \text{Group}(\{(1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 34)(2, 37)(3, 38)(4, 8)(5, 40)(6, 11)(7, 27)(10, 20)(12, 30)(13, 14)(15, 17)(16, 35)(18, 29)(19, 32)(24, 28)(25, 36)(31, 33), (2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34)\}) \cong \text{D}8$

$P_7 = \text{Group}(\{(1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 26, 19, 9)(2, 3, 13, 10)(4, 38, 24, 20)(5, 30, 7, 12)(6, 14, 18, 37)(8, 29, 28, 11)(15, 25, 17, 33)(16, 34, 35, 32)(21, 36, 23, 31)(22, 40, 39, 27), (1, 32, 19, 34)(2, 28, 13, 8)(3, 29, 10, 11)(4, 14, 24, 37)(5, 40, 7, 27)(6, 20, 18, 38)(9, 16, 26, 35)(12, 39, 30, 22)(15, 23, 17, 21)(25, 36, 33, 31)\}) \cong \text{Q}8$

$P_8 = \text{Group}(\{(1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 35, 34, 26, 19, 16, 32, 9)(2, 6, 8, 38, 13, 18, 28, 20)(3, 24, 11, 14, 10, 4, 29, 37)(5, 39, 27, 12, 7, 22, 40, 30)(15, 33, 21, 36, 17, 25, 23, 31), (1, 32, 19, 34)(2, 28, 13, 8)(3, 29, 10, 11)(4, 14, 24, 37)(5, 40, 7, 27)(6, 20, 18, 38)(9, 16, 26, 35)(12, 39, 30, 22)(15, 23, 17, 21)(25, 36, 33, 31)\}) \cong \text{C}8$

$P_9 = \text{Group}(\{(1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 34)(2, 37)(3, 38)(4, 8)(5, 40)(6, 11)(7, 27)(10, 20)(12, 30)(13, 14)(15, 17)(16, 35)(18, 29)(19, 32)(24, 28)(25, 36)(31, 33), (2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 26, 19, 9)(2, 3, 13, 10)(4, 38, 24, 20)(5, 30, 7, 12)(6, 14, 18, 37)(8, 29, 28, 11)(15, 25, 17, 33)(16, 34, 35, 32)(21, 36, 23, 31)(22, 40, 39, 27)\}) \cong \text{QD}16$

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

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

$N_3 = \text{Group}(\{(2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 27, 36, 19, 40, 31)(2, 28, 35, 24, 14, 9)(3, 11, 22, 18, 38, 30)(4, 37, 26, 13, 8, 16)(5, 34, 25)(6, 20, 12, 10, 29, 39)(7, 32, 33)(15, 23)(17, 21)\}) \cong \text{C}6 \times \text{C}2$

$N_4 = \text{Group}(\{(2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 7)(3, 10)(4, 24)(5, 19)(8, 9)(11, 30)(12, 29)(14, 35)(16, 37)(20, 22)(21, 23)(25, 27)(26, 28)(31, 34)(32, 36)(33, 40)(38, 39), (1, 40, 36)(2, 8, 35, 4, 14, 26)(3, 29, 22, 6, 38, 12)(5, 32, 25, 7, 34, 33)(9, 13, 28, 16, 24, 37)(10, 11, 39, 18, 20, 30)(15, 21)(17, 23)(19, 27, 31)\}) \cong (\text{C}6 \times \text{C}2) : \text{C}2$

$N_5 = \text{Group}(\{(1, 32, 19, 34)(2, 28, 13, 8)(3, 29, 10, 11)(4, 14, 24, 37)(5, 40, 7, 27)(6, 20, 18, 38)(9, 16, 26, 35)(12, 39, 30, 22)(15, 23, 17, 21)(25, 36, 33, 31), (1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 9, 19, 26)(2, 10, 13, 3)(4, 20, 24, 38)(5, 12, 7, 30)(6, 37, 18, 14)(8, 11, 28, 29)(15, 33, 17, 25)(16, 32, 35, 34)(21, 31, 23, 36)(22, 27, 39, 40)\}) \cong \text{QD}16$

$N_6 = \text{Group}(\{(2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 34)(2, 37)(3, 38)(4, 8)(5, 40)(6, 11)(7, 27)(10, 20)(12, 30)(13, 14)(15, 17)(16, 35)(18, 29)(19, 32)(24, 28)(25, 36)(31, 33), (1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (1, 26, 19, 9)(2, 3, 13, 10)(4, 38, 24, 20)(5, 30, 7, 12)(6, 14, 18, 37)(8, 29, 28, 11)(15, 25, 17, 33)(16, 34, 35, 32)(21, 36, 23, 31)(22, 40, 39, 27), (1, 19)(2, 13)(3, 10)(4, 24)(5, 7)(6, 18)(8, 28)(9, 26)(11, 29)(12, 30)(14, 37)(15, 17)(16, 35)(20, 38)(21, 23)(22, 39)(25, 33)(27, 40)(31, 36)(32, 34), (2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (2, 10)(3, 13)(4, 17)(5, 7)(6, 21)(9, 26)(11, 29)(14, 31)(15, 24)(16, 34)(18, 23)(20, 33)(22, 27)(25, 38)(32, 35)(36, 37)(39, 40)\}) \cong \text{GL}(2, 3)$

$N_8 = \text{Group}(\{(1, 35, 34, 26, 19, 16, 32, 9)(2, 6, 8, 38, 13, 18, 28, 20)(3, 24, 11, 14, 10, 4, 29, 37)(5, 39, 27, 12, 7, 22, 40, 30)(15, 33, 21, 36, 17, 25, 23, 31), (1, 34, 19,$