

The group  $G$  is isomorphic to the group labelled by [ "could not identify G" ] in the Small Groups library.

Ordinary character table of  $G \cong \text{PSL}(3,3)$ :

	1a	2a	3a	3b	4a	6a	8a	8b	13a	13b	13c	13d
$\chi_1$	1	1	1	1	1	1	1	1	1	1	1	1
$\chi_2$	12	4	3	0	0	1	0	0	-1	-1	-1	-1
$\chi_3$	13	-3	4	1	1	0	-1	-1	0	0	0	0
$\chi_4$	16	0	-2	1	0	0	0	0	$E(13)^4 + E(13)^{10} + E(13)^{12}$	$E(13)^7 + E(13)^8 + E(13)^{11}$	$E(13) + E(13)^3 + E(13)^9$	$E(13)^2 + E(13)^5 + E(13)^6$
$\chi_5$	16	0	-2	1	0	0	0	0	$E(13)^7 + E(13)^8 + E(13)^{11}$	$E(13) + E(13)^3 + E(13)^9$	$E(13)^2 + E(13)^5 + E(13)^6$	$E(13)^4 + E(13)^{10} + E(13)^{12}$
$\chi_6$	16	0	-2	1	0	0	0	0	$E(13)^2 + E(13)^5 + E(13)^6$	$E(13)^4 + E(13)^{10} + E(13)^{12}$	$E(13)^7 + E(13)^8 + E(13)^{11}$	$E(13) + E(13)^3 + E(13)^9$
$\chi_7$	16	0	-2	1	0	0	0	0	$E(13) + E(13)^3 + E(13)^9$	$E(13)^2 + E(13)^5 + E(13)^6$	$E(13)^4 + E(13)^{10} + E(13)^{12}$	$E(13)^7 + E(13)^8 + E(13)^{11}$
$\chi_8$	26	2	-1	-1	2	-1	0	0	0	0	0	0
$\chi_9$	26	-2	-1	-1	0	1	$E(8) + E(8)^3$	$-E(8) - E(8)^3$	0	0	0	0
$\chi_{10}$	26	-2	-1	-1	0	1	$-E(8) - E(8)^3$	$E(8) + E(8)^3$	0	0	0	0
$\chi_{11}$	27	3	0	0	-1	0	-1	-1	1	1	1	1
$\chi_{12}$	39	-1	3	0	-1	-1	1	1	0	0	0	0

Trivial source character table of  $G \cong \text{PSL}(3,3)$  at  $p = 2$

<i>Normalisers</i> $N_i$													$N_2$	$N_3$	$N_4$	$N_5$	$N_6$	$N_7$	$N_8$
<i>p</i> - subgroups of $G$ up to conjugacy in $G$													$P_2$	$P_3$	$P_4$	$P_5$	$P_6$	$P_7$	$P_8$
<i>Representatives</i> $n_j \in N_i$	1a	3a	3b					13a					13c						
	1a	3a	3b					13a					13c						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	80	8	2					2					2						
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	64	10	1					-1					-1						
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	16	-2	1	$E(13) + E(13)^3 + E(13)^9$				$E(13)^2 + E(13)^5 + E(13)^6$				$E(13)^4 + E(13)^{10} + E(13)^{12}$				$E(13)^7 + E(13)^8 + E(13)^{11}$			
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	16	-2	1	$E(13)^2 + E(13)^5 + E(13)^6$				$E(13)^4 + E(13)^{10} + E(13)^{12}$				$E(13)^7 + E(13)^8 + E(13)^{11}$				$E(13) + E(13)^3 + E(13)^9$			
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	16	-2	1	$E(13)^4 + E(13)^{10} + E(13)^{12}$				$E(13)^7 + E(13)^8 + E(13)^{11}$				$E(13) + E(13)^3 + E(13)^9$				$E(13)^2 + E(13)^5 + E(13)^6$			
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	16	-2	1	$E(13)^7 + E(13)^8 + E(13)^{11}$				$E(13) + E(13)^3 + E(13)^9$				$E(13)^2 + E(13)^5 + E(13)^6$				$E(13)^4 + E(13)^{10} + E(13)^{12}$			
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	144	0	-3					1					1						
$1 \cdot \chi_1 + 2 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	104	14	2					0					0						
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	104	5	-1					0					0						
$1 \cdot \chi_1 + 2 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 2 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	156	12	0					0					0						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	28	1	1					2					2						
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	12	3	0					-1					-1						
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	26	8	2					0					0						
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	26	-1	-1					0					0						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	54	0	0					2					2						
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	78	6	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						

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

$$P_2 = \text{Group}([(2, 6)(5, 9)(7, 12)(8, 11)]) \cong C2$$

$$P_3 = \text{Group}([(2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11)]) \cong C4$$

$$P_4 = \text{Group}([(2, 6)(5, 9)(7, 12)(8, 11), (3, 13)(5, 7)(8, 11)(9, 12)]) \cong C2 \times C2$$

$$P_5 = \text{Group}([(2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11), (2, 9, 6, 5)(3, 10)(4, 13)(7, 11, 12, 8)]) \cong Q8$$

$$P_6 = \text{Group}([(2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11), (3, 13)(5, 7)(8, 11)(9, 12)]) \cong D8$$

$$P_7 = \text{Group}([(2, 9, 8, 12, 6, 5, 11, 7)(3, 4, 13, 10), (2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11)]) \cong C8$$

$$P_8 = \text{Group}([(2, 9, 8, 12, 6, 5, 11, 7)(3, 4, 13, 10), (2, 6)(5, 9)(7, 12)(8, 11), (2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(3, 13)(5, 12)(7, 9)]) \cong \text{QD16}$$

$$N_1 = \text{Group}([(2, 4)(3, 5)(6, 8)(10, 11), (1, 2, 3)(5, 6, 7)(8, 9, 10)(11, 12, 13)]) \cong \text{PSL}(3,3)$$

$$N_2 = \text{Group}([(2, 9)(3, 10)(5, 6)(8, 11), (2, 6)(5, 9)(7, 12)(8, 11), (3, 4)(5, 11)(7, 12)(8, 9), (4, 13)(5, 9)(7, 8)(11, 12)]) \cong \text{GL}(2,3)$$

$$N_3 = \text{Group}([(2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11), (3, 13)(5, 7)(8, 11)(9, 12), (2, 7, 6, 12)(3, 4)(5, 11, 9, 8)(10, 13)]) \cong \text{QD16}$$

$$N_4 = \text{Group}([(1, 10)(3, 8)(9, 12)(11, 13), (2, 6)(5, 9)(7, 12)(8, 11), (1, 4)(2, 13)(3, 6)(7, 9), (3, 13)(5, 7)(8, 11)(9, 12)]) \cong S4$$

$$N_5 = \text{Group}([(2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11), (3, 4)(5, 11)(7, 12)(8, 9), (2, 9, 6, 5)(3, 10)(4, 13)(7, 11, 12, 8), (4, 13)(5, 9)(7, 8)(11, 12)]) \cong \text{GL}(2,3)$$

$$N_6 = \text{Group}([(2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11), (3, 13)(5, 7)(8, 11)(9, 12), (2, 7, 6, 12)(3, 4)(5, 11, 9, 8)(10, 13)]) \cong \text{QD16}$$

$$N_7 = \text{Group}([(2, 9, 8, 12, 6, 5, 11, 7)(3, 4, 13, 10), (2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(5, 9)(7, 12)(8, 11), (3, 13)(5, 7)(8, 11)(9, 12)]) \cong \text{QD16}$$

$$N_8 = \text{Group}([(2, 9, 8, 12, 6, 5, 11, 7)(3, 4, 13, 10), (2, 6)(5, 9)(7, 12)(8, 11), (2, 11, 6, 8)(3, 13)(4, 10)(5, 12, 9, 7), (2, 6)(3, 13)(5, 12)(7, 9), (3, 13)(5, 7)(8, 11)(9, 12)]) \cong \text{QD16}$$