

The group G is isomorphic to the group labelled by [336, 208] in the Small Groups library.

Ordinary character table of $G \cong \text{PSL}(3,2) : \text{C2}$:

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

Trivial source character table of $G \cong \text{PSL}(3,2) : \text{C2}$ at $p = 2$:

| Normalisers N_i | N_1 | | N_2 | N_3 | | N_4 | N_5 | N_6 | | N_7 | N_8 | N_9 | N_{10} |
|--|-------|----|-------|-------|----|-------|-------|-------|----|-------|-------|-------|----------|
| 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 | P_{10} |
| Representatives $n_j \in N_i$ | 1a | 3a | 7a | 1a | 1a | 3a | 1a | 1a | 1a | 3a | 1a | 1a | 1a |
| $1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 16 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 32 | 2 | -3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9$ | 16 | -2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 2 \cdot \chi_4 + 2 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 40 | 4 | -2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 8 | 2 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$ | 8 | -1 | 1 | 0 | 2 | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 20 | 2 | -1 | 4 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| $1 \cdot \chi_1 + 1 \cdot \chi_2 + 2 \cdot \chi_3 + 2 \cdot \chi_4 + 2 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 52 | 4 | -4 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| $1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 28 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 |
| $0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 12 | 0 | -2 | 4 | 0 | 0 | 0 | 0 | 2 | -1 | 0 | 0 | 0 |
| $1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 26 | 2 | -2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 0 |
| $1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 26 | 2 | -2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 |
| $1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 2 |
| $1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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

$$P_2 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8)]) \cong \text{C2}$$

$$P_3 = \text{Group}([(2, 8)(3, 4)(5, 6)]) \cong \text{C2}$$

$$P_4 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (2, 8)(3, 4)(5, 6)]) \cong \text{C2} \times \text{C2}$$

$$P_5 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 3, 7, 4)(2, 5, 6, 8)]) \cong \text{C4}$$

$$P_6 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 6)(2, 7)(3, 5)(4, 8)]) \cong \text{C2} \times \text{C2}$$

$$P_7 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 4)(2, 6)(3, 7), (2, 8)(3, 4)(5, 6)]) \cong \text{D8}$$

$$P_8 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 2, 3, 5, 7, 6, 4, 8), (1, 3, 7, 4)(2, 5, 6, 8)]) \cong \text{C8}$$

$$P_9 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 8)(2, 4)(3, 6)(5, 7), (1, 3, 7, 4)(2, 5, 6, 8)]) \cong \text{D8}$$

$$P_{10} = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 4)(2, 6)(3, 7), (2, 8)(3, 4)(5, 6), (1, 2, 3, 5, 7, 6, 4, 8)]) \cong \text{D16}$$

$$N_1 = \text{Group}([(2, 4)(3, 5)(7, 8), (1, 2, 3)(4, 6, 7)]) \cong \text{PSL}(3,2) : \text{C2}$$

$$N_2 = \text{Group}([(1, 7)(2, 6)(3, 4)(5, 8), (1, 3)(4, 7)(5, 8), (1, 8, 4, 6, 7, 5, 3, 2)]) \cong \text{D16}$$

$$N_3 = \text{Group}([(2, 8)(3, 4)(5, 6), (1, 7)(3, 5)(4, 6), (1, 7)(2, 3)(4, 8)]) \cong \text{D12}$$

$$N_4 = \text{Group}([(2, 8)(3, 4)(5, 6), (1, 7)(2, 6)(3, 4)(5, 8), (1, 3)(4, 7)(5, 8)]) \cong \text{D8}$$

$$N_5 = \text{Group}([(1, 3, 7, 4)(2, 5, 6, 8), (1, 7)(2, 6)(3, 4)(5, 8), (2, 8)(3, 4)(5, 6), (1, 2)(3, 8)(4, 5)(6, 7)]) \cong \text{D16}$$

$$N_6 = \text{Group}([(1, 6)(2, 7)(3, 5)(4, 8), (1, 7)(2, 6)(3, 4)(5, 8), (2, 6, 7)(3, 4, 5), (1, 3, 7, 4)(2, 5, 6, 8)]) \cong \text{S4}$$

$$N_7 = \text{Group}([(2, 8)(3, 4)(5, 6), (1, 4)(2, 6)(3, 7), (1, 7)(2, 6)(3, 4)(5, 8), (1, 2)(3, 8)(4, 5)(6, 7)]) \cong \text{D16}$$

$$N_8 = \text{Group}([(1, 2, 3, 5, 7, 6, 4, 8), (1, 3, 7, 4)(2, 5, 6, 8), (1, 7)(2, 6)(3, 4)(5, 8), (2, 8)(3, 4)(5, 6)]) \cong \text{D16}$$

$$N_9 = \text{Group}([(1, 3, 7, 4)(2, 5, 6, 8), (1, 8)(2, 4)(3, 6)(5, 7), (1, 7)(2, 6)(3, 4)(5, 8), (2, 8)(3, 4)(5, 6)]) \cong \text{D16}$$

$$N_{10} = \text{Group}([(1, 2, 3, 5, 7, 6, 4, 8), (2, 8)(3, 4)(5, 6), (1, 4)(2, 6)(3, 7), (1, 7)(2, 6)(3, 4)(5, 8)]) \cong \text{D16}$$