

$G \cong \text{PSL}(2,8) : \text{C}3, p = 7$

Normalizers		$N_1$							$N_2$						
$p$ -subgroups of $G$ up to conjugacy in $G$		$P_1$							$P_2$						
Representants $n_j$		(1, 2)(3, 5)(4, 6)(7, 9), (1, 4, 8)(2, 5, 9)(3, 7, 6), (1, 5, 6)(4, 9, 8), (1, 6, 5)(4, 8, 9), (1, 9)(2, 6, 8, 3, 4, 5), (1, 9)(2, 5, 4, 3, 8, 6), (1, 3, 5, 4, 7, 9, 8, 6, 2), (1, 5, 7, 8, 2, 3, 4, 9, 6), (1, 7, 8, 9, 2, 3, 4, 6, 5)							(1, 3)(2, 9)(4, 8)(5, 6), (1, 4, 3)(7, 9, 8), (1, 8, 3)(2, 7, 4), (1, 7, 2, 8, 9, 3)(5, 6), (1, 2, 4, 9, 7, 3)(5, 6)						
Representants $\bar{n}_j$		(1, 2)(3, 5)(4, 6)(7, 9), (1, 4, 8)(2, 5, 9)(3, 7, 6), (1, 5, 6)(4, 9, 8), (1, 6, 5)(4, 8, 9), (1, 9)(2, 6, 8, 3, 4, 5), (1, 9)(2, 5, 4, 3, 8, 6), (1, 3, 5, 4, 7, 9, 8, 6, 2), (1, 5, 7, 8, 2, 3, 4, 9, 6), (1, 7, 8, 9, 2, 3, 4, 6, 5)							(1, 5)(2, 6)(3, 4), (1, 2, 4)(3, 5, 6), (1, 4, 2)(3, 6, 5), (1, 3, 2, 5, 4, 6), (1, 6, 4, 5, 2, 3)						
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11}$	28	4	1	1	1	1	1	1	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11}$	28	4	1	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11}$	28	4	1	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	7	-1	-2	1	1	-1	1	1	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	7	-1	-2	$E(3)^{\wedge 2}$	$E(3)$	$-E(3)^{\wedge 2}$	$-E(3)$	$E(3)^{\wedge 2}$	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	7	-1	-2	$E(3)$	$E(3)^{\wedge 2}$	$-E(3)$	$-E(3)^{\wedge 2}$	$E(3)$	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11}$	35	3	-1	2	2	0	0	-1	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11}$	35	3	-1	$2 * E(3)^{\wedge 2}$	$2 * E(3)$	0	0	$-E(3)^{\wedge 2}$	$-E(3)$	-1	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11}$	35	3	-1	$2 * E(3)$	$2 * E(3)^{\wedge 2}$	0	0	$-E(3)$	$-E(3)^{\wedge 2}$	-1	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11}$	21	-3	3	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	8	0	-1	$2 * E(3)^{\wedge 2}$	$2 * E(3)$	0	0	$-E(3)^{\wedge 2}$	$-E(3)$	-1	1	-1	$E(3)^{\wedge 2}$	$E(3)$	$-E(3)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	8	0	-1	$2 * E(3)$	$2 * E(3)^{\wedge 2}$	0	0	$-E(3)$	$-E(3)^{\wedge 2}$	-1	1	-1	$E(3)$	$E(3)^{\wedge 2}$	$-E(3)^{\wedge 2}$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	8	0	-1	2	2	0	0	-1	-1	-1	1	-1	1	-1	-1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	1	1	1	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	1	1	1	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11}$	1	1	1	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$	$E(3)$	1	1	1	$E(3)^{\wedge 2}$	$E(3)$	$E(3)^{\wedge 2}$

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

$$P_2 = \text{Group}([(1, 9, 4, 7, 8, 2, 3)]) \cong \text{C}7$$

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

$$N_2 = \text{Group}([(1, 9, 4, 7, 8, 2, 3), (2, 7, 3)(4, 8, 9), (2, 9, 7, 4, 3, 8)(5, 6)]) \cong \text{C}7 : \text{C}6$$

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

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