

The group G is isomorphic to the group labelled by [20, 3] in the Small Groups library.

Ordinary character table of $G \cong C5 : C4$:

	1a	5a	4a	2a	4b
χ_1	1	1	1	1	1
χ_2	1	1	$E(4)$	-1	$-E(4)$
χ_3	1	1	-1	1	-1
χ_4	1	1	$-E(4)$	-1	$E(4)$
χ_5	4	-1	0	0	0

Trivial source character table of $G \cong C5 : C4$ 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	4a	2a	4b	1a	4a	2a	4b
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5$	5	1	1	1	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5$	5	$E(4)$	-1	$-E(4)$	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5$	5	-1	1	-1	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5$	5	$-E(4)$	-1	$E(4)$	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	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	1	-1	1	-1	1	-1	1	-1
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$

$$P_1 = Group([(())]) \cong 1$$

$$P_2 = Group([(1, 4, 8, 12, 16)(2, 6, 10, 14, 18)(3, 7, 11, 15, 19)(5, 9, 13, 17, 20)]) \cong C5$$

$$N_1 = Group([(1, 2, 3, 5)(4, 10, 19, 17)(6, 11, 20, 12)(7, 13, 16, 14)(8, 18, 15, 9), (1, 3)(2, 5)(4, 19)(6, 20)(7, 16)(8, 15)(9, 18)(10, 17)(11, 12)(13, 14), (1, 4, 8, 12, 16)(2, 6, 10, 14, 18)(3, 7, 11, 15, 19)(5, 9, 13, 17, 20)]) \cong C5 : C4$$

$$N_2 = Group([(1, 4, 8, 12, 16)(2, 6, 10, 14, 18)(3, 7, 11, 15, 19)(5, 9, 13, 17, 20), (1, 2, 3, 5)(4, 10, 19, 17)(6, 11, 20, 12)(7, 13, 16, 14)(8, 18, 15, 9)]) \cong C5 : C4$$