

The group  $G$  is isomorphic to the group labelled by [ 46, 1 ] in the Small Groups library.

Ordinary character table of  $G \cong \text{D46}$ :

	1a	2a	23a	23b	23c	23d	23e	23f	23g	23h	23i	23j	23k
$\chi_1$	1	1	1	1	1	1	1	1	1	1	1	1	1
$\chi_2$	1	-1	1	1	1	1	1	1	1	1	1	1	1
$\chi_3$	2	0	$E(23)^3 + E(23)^{20}$	$E(23)^6 + E(23)^{17}$	$E(23)^9 + E(23)^{14}$	$E(23)^{11} + E(23)^{12}$	$E(23)^8 + E(23)^{15}$	$E(23)^5 + E(23)^{18}$	$E(23)^2 + E(23)^{21}$	$E(23) + E(23)^{22}$	$E(23)^4 + E(23)^{19}$	$E(23)^7 + E(23)^{16}$	$E(23)^{10} + E(23)^{13}$
$\chi_4$	2	0	$E(23)^4 + E(23)^{19}$	$E(23)^8 + E(23)^{15}$	$E(23)^{11} + E(23)^{12}$	$E(23)^7 + E(23)^{16}$	$E(23)^3 + E(23)^{20}$	$E(23) + E(23)^{22}$	$E(23)^5 + E(23)^{18}$	$E(23)^9 + E(23)^{14}$	$E(23)^{10} + E(23)^{13}$	$E(23)^6 + E(23)^{17}$	$E(23)^2 + E(23)^{21}$
$\chi_5$	2	0	$E(23)^2 + E(23)^{21}$	$E(23)^4 + E(23)^{19}$	$E(23)^6 + E(23)^{17}$	$E(23)^8 + E(23)^{15}$	$E(23)^{10} + E(23)^{13}$	$E(23)^{11} + E(23)^{12}$	$E(23)^9 + E(23)^{14}$	$E(23)^7 + E(23)^{16}$	$E(23)^5 + E(23)^{18}$	$E(23)^3 + E(23)^{20}$	$E(23) + E(23)^{22}$
$\chi_6$	2	0	$E(23)^6 + E(23)^{17}$	$E(23)^{11} + E(23)^{12}$	$E(23)^5 + E(23)^{18}$	$E(23) + E(23)^{22}$	$E(23)^7 + E(23)^{16}$	$E(23)^{10} + E(23)^{13}$	$E(23)^4 + E(23)^{19}$	$E(23)^2 + E(23)^{21}$	$E(23)^8 + E(23)^{15}$	$E(23)^9 + E(23)^{14}$	$E(23)^3 + E(23)^{20}$
$\chi_7$	2	0	$E(23)^{11} + E(23)^{12}$	$E(23) + E(23)^{22}$	$E(23)^{10} + E(23)^{13}$	$E(23)^2 + E(23)^{21}$	$E(23)^9 + E(23)^{14}$	$E(23)^3 + E(23)^{20}$	$E(23)^8 + E(23)^{15}$	$E(23)^4 + E(23)^{19}$	$E(23)^7 + E(23)^{16}$	$E(23)^5 + E(23)^{18}$	$E(23)^6 + E(23)^{17}$
$\chi_8$	2	0	$E(23) + E(23)^{22}$	$E(23)^2 + E(23)^{21}$	$E(23)^3 + E(23)^{20}$	$E(23)^4 + E(23)^{19}$	$E(23)^5 + E(23)^{18}$	$E(23)^6 + E(23)^{17}$	$E(23)^7 + E(23)^{16}$	$E(23)^8 + E(23)^{15}$	$E(23)^9 + E(23)^{14}$	$E(23)^{10} + E(23)^{13}$	$E(23)^{11} + E(23)^{12}$
$\chi_9$	2	0	$E(23)^7 + E(23)^{16}$	$E(23)^9 + E(23)^{14}$	$E(23)^2 + E(23)^{21}$	$E(23)^5 + E(23)^{18}$	$E(23)^{11} + E(23)^{12}$	$E(23)^4 + E(23)^{19}$	$E(23)^3 + E(23)^{20}$	$E(23)^{10} + E(23)^{13}$	$E(23)^6 + E(23)^{17}$	$E(23) + E(23)^{22}$	$E(23)^8 + E(23)^{15}$
$\chi_{10}$	2	0	$E(23)^9 + E(23)^{14}$	$E(23)^5 + E(23)^{18}$	$E(23)^4 + E(23)^{19}$	$E(23)^{10} + E(23)^{13}$	$E(23) + E(23)^{22}$	$E(23)^8 + E(23)^{15}$	$E(23)^6 + E(23)^{17}$	$E(23)^3 + E(23)^{20}$	$E(23)^{11} + E(23)^{12}$	$E(23)^2 + E(23)^{21}$	$E(23)^7 + E(23)^{16}$
$\chi_{11}$	2	0	$E(23)^5 + E(23)^{18}$	$E(23)^{10} + E(23)^{13}$	$E(23)^8 + E(23)^{15}$	$E(23)^3 + E(23)^{20}$	$E(23)^2 + E(23)^{21}$	$E(23)^7 + E(23)^{16}$	$E(23)^{11} + E(23)^{12}$	$E(23)^6 + E(23)^{17}$	$E(23) + E(23)^{22}$	$E(23)^4 + E(23)^{19}$	$E(23)^9 + E(23)^{14}$
$\chi_{12}$	2	0	$E(23)^8 + E(23)^{15}$	$E(23)^7 + E(23)^{16}$	$E(23) + E(23)^{22}$	$E(23)^9 + E(23)^{14}$	$E(23)^6 + E(23)^{17}$	$E(23)^2 + E(23)^{21}$	$E(23)^{10} + E(23)^{13}$	$E(23)^5 + E(23)^{18}$	$E(23)^3 + E(23)^{20}$	$E(23)^{11} + E(23)^{12}$	$E(23)^4 + E(23)^{19}$
$\chi_{13}$	2	0	$E(23)^{10} + E(23)^{13}$	$E(23)^3 + E(23)^{20}$	$E(23)^7 + E(23)^{16}$	$E(23)^6 + E(23)^{17}$	$E(23)^4 + E(23)^{19}$	$E(23)^9 + E(23)^{14}$	$E(23) + E(23)^{22}$	$E(23)^{11} + E(23)^{12}$	$E(23)^2 + E(23)^{21}$	$E(23)^8 + E(23)^{15}$	$E(23)^5 + E(23)^{18}$

Trivial source character table of  $G \cong \text{D46}$  at  $p = 23$ :

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	2a	1a	2a
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13}$	23	-1	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12} + 1 \cdot \chi_{13}$	23	1	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13}$	1	1	1	1
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13}$	1	-1	1	-1

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

$$P_2 = \text{Group}([(1, 39, 31, 23, 15, 7, 45, 37, 29, 21, 13, 5, 43, 35, 27, 19, 11, 3, 41, 33, 25, 17, 9)(2, 40, 32, 24, 16, 8, 46, 38, 30, 22, 14, 6, 44, 36, 28, 20, 12, 4, 42, 34, 26, 18, 10)]) \cong \text{C23}$$

$$N_1 = \text{Group}([(1, 2)(3, 46)(4, 45)(5, 44)(6, 43)(7, 42)(8, 41)(9, 40)(10, 39)(11, 38)(12, 37)(13, 36)(14, 35)(15, 34)(16, 33)(17, 32)(18, 31)(19, 30)(20, 29)(21, 28)(22, 27)(23, 26)(24, 25), (1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45)(2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46)]) \cong \text{D46}$$

$$N_2 = \text{Group}([(1, 39, 31, 23, 15, 7, 45, 37, 29, 21, 13, 5, 43, 35, 27, 19, 11, 3, 41, 33, 25, 17, 9)(2, 40, 32, 24, 16, 8, 46, 38, 30, 22, 14, 6, 44, 36, 28, 20, 12, 4, 42, 34, 26, 18, 10), (1, 2)(3, 46)(4, 45)(5, 44)(6, 43)(7, 42)(8, 41)(9, 40)(10, 39)(11, 38)(12, 37)(13, 36)(14, 35)(15, 34)(16, 33)(17, 32)(18, 31)(19, 30)(20, 29)(21, 28)(22, 27)(23, 26)(24, 25)]) \cong \text{D46}$$