The group G is isomorphic to the group $SL(2,9)$: C4. Ordinary character table of $G \cong SL(2,9)$: C4:

Trivial source character table of $G \cong SL(2,9)$: C4 at p = 5

p-subgroups of G up to conjugacy in G

 $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{21} + 0 \cdot \chi_{21} + 0 \cdot \chi_{22} \end{vmatrix} \ 10 \quad 10 \quad -2 \quad 1 \quad -10 \quad 2 \quad 2 * E(4) \quad -2 * E(4) \quad 1$ $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0 \cdot \chi_{22} \end{vmatrix} \ 10 \quad 10 \quad -2 \quad 1 \quad -10 \quad 2 \quad -2 * E(4) \quad 2 * E(4) \quad 1$

 $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 1 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0 \cdot \chi_{22} \end{vmatrix} \ 16 \quad 16 \quad 0 \quad -2 \quad 16 \quad 0 \quad 0 \quad -2 \quad 0$ $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 1 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0 \cdot \chi_{22} \end{vmatrix} \ 16 \quad 16 \quad 0 \quad -2 \quad -16 \quad 0 \quad 0 \quad -2 \quad -2 \quad 0$

 $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{21} + 0$

 $\left| \ 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} + 0 \cdot \chi_{21} +$

 $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0$

 $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 1 \cdot \chi_{19} + 1 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0$ $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0 \cdot \chi_{22} \end{vmatrix} \ 10 \quad 10 \quad -2 \quad 1 \quad -10 \quad 2 \quad 0 \quad 1$ $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{20} + 0 \cdot \chi_{21} + 0 \cdot \chi_{22} \end{vmatrix} \ 10 \quad 10 \quad 2 \quad 1 \quad 10 \quad 2 \quad 0 \quad 0 \quad 1$

 $\left| \ 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 1 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{21} + 0 \cdot \chi_{21}$

 $\begin{vmatrix} 0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12} + 0 \cdot \chi_{13} + 0 \cdot \chi_{14} + 0 \cdot \chi_{15} + 0 \cdot \chi_{16} + 0 \cdot \chi_{17} + 0 \cdot \chi_{18} + 0 \cdot \chi_{19} + 0$

0 0 3*E(4) -3*E(4) 0 0

 $0 \quad -3 * E(4) \quad 3 * E(4)$

 $0 \qquad \qquad 0 \qquad \qquad 2 \qquad \qquad 2 \qquad \qquad 0$

 $0 \qquad 0 \qquad -1 \qquad -1 \qquad E(8) - E(8) \widehat{} 3 \qquad -E(8) + E(8) \widehat{} 3 \qquad -E(8) + E(8) \widehat{} 3 \qquad E(8) - E(8) \widehat{} 3 \qquad 0 \qquad 0$

E(4) 0 0 0 0 0 0 0 0 0

-E(4) | 0 0 0 0 0 0 0 0 0 0

 $0 \qquad | \ 0 \quad 0$

 $0 \qquad | \ 0 \quad 0$

-1 1 -1 E(4) -E(4) E(4) E(4) E(4) E(4) E(4) E(4) E(4) E(4) E(4) $0 \qquad | \ 2 \ -2 \ 2 \ -2 \ 0 \qquad 0 \quad 0 \quad 0 \quad 0 \quad 0$ 0 | 2 2 -2 -2 0 0 0 0 0 0

E(4) | 1 -1 -1 1 -E(4) E(4) -1 1 E(4) -E(4) |

 $1 \quad 1 \quad 1 \quad 1$

-1 1 -1 0 0 -E(4) E(4)

-2 0 -1 -1 0 0

0 0 1 $-E(8) - E(8)^3 - E(8) - E(8)^3 - E(8) + E(8)^3 - E(8) + E(8)^3$

 $E(20) + E(20)^{\hat{}} 9 - E(20)^{\hat{}} 13 - E(20)^{\hat{}} 17 - E(20) - E(20)^{\hat{}} 9 + E(20)^{\hat{}} 13 + E(20)^{\hat{}} 17$

 $0 -E(20) - E(20)^{\hat{}} 9 + E(20)^{\hat{}} 13 + E(20)^{\hat{}} 17 E(20) + E(20)^{\hat{}} 9 - E(20)^{\hat{}} 13 - E(20)^{\hat{}} 17$

0 0 0 -1 $E(8) - E(8)^3 - E(8) + E(8)^3 - E(8) + E(8)^3 = E(8) - E(8)^3$

0 0 1 $E(8) + E(8)^3 = E(8) + E(8)^3 = -E(8) - E(8)^3 = -E(8) - E(8)^3 = 0$

0 0 -1 $-E(8) + E(8)^3 = E(8) - E(8)^3 = E(8) - E(8)^3 = -E(8) + E(8)^3 = 0$

0 0 2 3*E(4) -3*E(4)0 0 2 -3*E(4) 3*E(4)

1 1 -1 0 0

1 1 -1 0 0

0 0 1 -2

 $|\chi_{22}|$ 20 -20 0 2 0 0 0 0 0 -2 -2 * E(8) - 2 * E(8) 3 2 * E(8) + 2 * E(8) 3 0 0 0

-2 -2 0 1

 $0 \qquad \qquad 0 \qquad 1 \qquad \qquad 2 \qquad \qquad 2$ 0 0 -1 0 0

0 0 -1 0 0 0

 $|\chi_2|$ 1 1 1 1 1 1 -1 -1 1 1 $|\chi_4|$ 1 1 -1 1 -1 1 E(4) -E(4) 1 1 $|\chi_5| 8 - 8 0 - 1 0 0 0 0 - 2 1$

 $|\chi_7|$ 9 9 1 0 9 1 -1 -1 0

 $|\chi_8|$ 9 9 1 0 9 1 1 1 -1 0

 $|\chi_{10}| 9 9 -1 0 -9 1 E(4) -E(4) -1 0$

 $|\chi_{11}| 10 \quad 10 \quad 2 \quad 1 \quad 10 \quad 2 \quad 0 \quad 0 \quad 1$ $|\chi_{12}| 10 \quad 10 \quad -2 \quad 1 \quad -10 \quad 2 \quad 0 \quad 0 \quad 0 \quad 1$

 $|\chi_9| 9 9 -1 0 -9 1 -E(4) E(4) -1 0$

 $|\chi_{13}| 10 \quad 10 \quad -2 \quad 1 \quad 10 \quad -2 \quad 0 \quad 0 \quad 0 \quad 1$

 $|\chi_{16}| 10 \quad 10 \quad 2 \quad 1 \quad -10 \quad -2 \quad 0 \quad 0 \quad 0 \quad 1$

 $|\chi_{15}| 10 \quad 10 \quad -2 \quad 1 \quad 10 \quad -2 \quad 0 \quad 0 \quad 1$

 $|\chi_{14}| 10 \quad 10 \quad 2 \quad 1 \quad -10 \quad -2 \quad 0 \quad 0 \quad 0 \quad 1$

 $|\chi_{17}| 16 \quad 16 \quad 0 \quad -2 \quad 16 \quad 0 \quad 0 \quad 0 \quad 1 \quad -2 \quad 0$

 $|\chi_{18}| 16 \quad 16 \quad 0 \quad -2 \quad -16 \quad 0 \quad 0 \quad 0 \quad 1 \quad -2 \quad 0$

 $\chi_{19} \mid 16 - 16 \quad 0 \quad -2 \quad 0 \quad 0 \quad 0 \quad 1 \quad 2 \quad 0$

 $P_2 = Group([(1,48,46,38,8)(2,10,36,77,34)(3,73,52,55,23)(4,15,51,57,19)(5,30,49,27,75)(6,21,58,50,63)(7,25,70,35,28)(9,31,56,62,74)(11,45,68,66,53)(12,42,61,69,40)(13,44,76,33,47)(14,16,60,37,78)(17,65,32,18,71)(20,39,79,24,26)(22,64,80,59,67)(29,54,72,41,43)]) \cong C5$ $N_1 = Group([(1,38,31,12)(2,16,53,10)(3,55,44,4)(5,46,29,61)(6,43,75,21)(7,30,72,64)(8,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,78,25)(24,37,48,80)(28,63)(33,50,62,77)(34,67)(35,57,59,69)(39,68,56,41)(47,74),(1,50,53,67,25,23,66,32,37)(22,45,56,32,37)(22,45,32,37)(22,45,32,37)(22,45,32,37)(22,45,32,32)(22,45,32$



