# $L_2(13).2 \pmod{13}$

| | blocks | defect | matrix |
|---|---|---|---|
| $G:$ | 1 | 1 | $13 \times 12$ |
| | 2 | 0 | $13_1 = \chi_{7,0}, \varphi_{7,0}$ |
| | 3 | 0 | $13_2 = \chi_{7,1}, \varphi_{7,1}$ |
| $2.G:$ | 4 | 1 | $13 \times 12$ |

| **Block 1:** | $\varphi_{1,0}$ | $\varphi_{1,1}$ | $\varphi_{2,0}$ | $\varphi_{2,1}$ | $\varphi_{3,0}$ | $\varphi_{3,1}$ | $\varphi_{4,0}$ | $\varphi_{4,1}$ | $\varphi_{5,0}$ | $\varphi_{5,1}$ | $\varphi_{6,0}$ | $\varphi_{6,1}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $1_1 = \chi_{1,0}$ | 1 | . | . | . | . | . | . | . | . | . | . | . |
| $1_2 = \chi_{1,1}$ | . | 1 | . | . | . | . | . | . | . | . | . | . |
| $14_1 = \chi_{2+}$ | . | . | . | . | . | . | 1 | 1 | . | . | . | . |
| $12_1 = \chi_{4,0}$ | . | . | . | . | 1 | . | . | 1 | . | . | . | . |
| $12_2 = \chi_{4,1}$ | . | . | . | . | . | 1 | 1 | . | . | . | . | . |
| $12_3 = \chi_{5,0}$ | . | . | . | 1 | . | . | . | . | 1 | . | . | . |
| $12_4 = \chi_{5,1}$ | . | . | 1 | . | . | . | . | . | . | 1 | . | . |
| $12_5 = \chi_{6,0}$ | 1 | . | . | . | . | . | . | . | . | . | . | 1 |
| $12_6 = \chi_{6,1}$ | . | 1 | . | . | . | . | . | . | . | . | 1 | . |
| $14_2 = \chi_{8,0}$ | . | . | . | . | . | 1 | . | . | 1 | . | . | . |
| $14_3 = \chi_{8,1}$ | . | . | . | . | 1 | . | . | . | . | 1 | . | . |
| $14_4 = \chi_{9,0}$ | . | . | 1 | . | . | . | . | . | . | . | . | 1 |
| $14_5 = \chi_{9,1}$ | . | . | . | 1 | . | . | . | . | . | . | 1 | . |

$$\begin{aligned}
\varphi_{1,0} &= 1_1 & \qquad \varphi_{4,0} &= 7_1 \\
\varphi_{1,1} &= 1_2 & \qquad \varphi_{4,1} &= 7_2 \\
\varphi_{2,0} &= 3_1 & \qquad \varphi_{5,0} &= 9_1 \\
\varphi_{2,1} &= 3_2 & \qquad \varphi_{5,1} &= 9_2 \\
\varphi_{3,0} &= 5_1 & \qquad \varphi_{6,0} &= 11_1 \\
\varphi_{3,1} &= 5_2 & \qquad \varphi_{6,1} &= 11_2
\end{aligned}$$

| **Block 4:** | $\varphi_{8,0}$ | $\varphi_{8,1}$ | $\varphi_{9,0}$ | $\varphi_{9,1}$ | $\varphi_{10,0}$ | $\varphi_{10,1}$ | $\varphi_{11,0}$ | $\varphi_{11,1}$ | $\varphi_{12,0}$ | $\varphi_{12,1}$ | $\varphi_{13,0}$ | $\varphi_{13,1}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $12_7 = \chi_{10+}$ | . | . | . | . | 1 | 1 | . | . | . | . | . | . |
| $12_8 = \chi_{12,0}$ | . | . | . | . | . | . | . | . | . | . | 1 | . |
| $12_9 = \chi_{12,1}$ | . | . | . | . | . | . | . | . | . | . | . | 1 |
| $12_{10} = \chi_{13,0}$ | . | 1 | . | . | . | . | . | . | 1 | . | . | . |
| $12_{11} = \chi_{13,1}$ | 1 | . | . | . | . | . | . | . | . | 1 | . | . |
| $12_{12} = \chi_{14,0}$ | . | . | 1 | . | . | . | . | 1 | . | . | . | . |
| $12_{13} = \chi_{14,1}$ | . | . | . | 1 | . | . | 1 | . | . | . | . | . |
| $14_6 = \chi_{15,0}$ | . | . | 1 | . | . | . | . | . | . | 1 | . | . |
| $14_7 = \chi_{15,1}$ | . | . | . | 1 | . | . | . | . | 1 | . | . | . |
| $14_8 = \chi_{16,0}$ | . | 1 | . | . | . | . | . | . | . | . | 1 | . |
| $14_9 = \chi_{16,1}$ | 1 | . | . | . | . | . | . | . | . | . | . | 1 |
| $14_{10} = \chi_{17,0}$ | . | . | . | . | 1 | . | . | 1 | . | . | . | . |
| $14_{11} = \chi_{17,1}$ | . | . | . | . | . | 1 | 1 | . | . | . | . | . |

$$\begin{aligned}
\varphi_{8,0} &= 2_1 & \qquad \varphi_{11,0} &= 8_1 \\
\varphi_{8,1} &= 2_2 & \qquad \varphi_{11,1} &= 8_2 \\
\varphi_{9,0} &= 4_1 & \qquad \varphi_{12,0} &= 10_1 \\
\varphi_{9,1} &= 4_2 & \qquad \varphi_{12,1} &= 10_2 \\
\varphi_{10,0} &= 6_1 & \qquad \varphi_{13,0} &= 12_1 \\
\varphi_{10,1} &= 6_2 & \qquad \varphi_{13,1} &= 12_2
\end{aligned}$$