

$J_2.2 \pmod{5}$

	blocks	defect	matrix
$G :$	1	2	16×12
	2	1	5×4
	3	0	$175_1 = \chi_{13,0}, \varphi_{8,0}$
	4	0	$175_2 = \chi_{13,1}, \varphi_{8,1}$
	5	0	$225_1 = \chi_{18,0}, \varphi_{10,0}$
	6	0	$225_2 = \chi_{18,1}, \varphi_{10,1}$

	blocks	defect	matrix
	7	0	$300_1 = \chi_{20,0}, \varphi_{11,0}$
	8	0	$300_2 = \chi_{20,1}, \varphi_{11,1}$
$2.G :$	9	2	16×12
	10	0	$100_1 = \chi_{25+}, \varphi_{14+}$
	11	0	$350_1 = \chi_{37,0}, \varphi_{20,0}$
	12	0	$350_2 = \chi_{37,1}, \varphi_{20,1}$

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{4,0}$	$\varphi_{4,1}$	$\varphi_{6,0}$	$\varphi_{6,1}$	$\varphi_{9,0}$	$\varphi_{9,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.	.	.	.	.	.	.
$28_1 = \chi_{2+}$	.	.	1	1	.	.	.	.	.	.	.	.
$42_1 = \chi_{4+}$	.	.	.	.	1	1	.	.	.	.	.	.
$36_1 = \chi_{6,0}$	1	.	1	.	1	.	.	.	.	.	.	.
$36_2 = \chi_{6,1}$	.	1	.	1	.	1	.	.	.	.	.	.
$63_1 = \chi_{7,0}$	1	.	.	.	1	.	1	.	.	.	.	.
$63_2 = \chi_{7,1}$	.	1	.	.	.	1	.	1	.	.	.	.
$126_1 = \chi_{11,0}$	.	.	.	.	.	.	1	.	.	1	.	.
$126_2 = \chi_{11,1}$	.	.	.	.	.	.	.	1	1	.	.	.
$378_1 = \chi_{14+}$	.	.	.	.	.	.	.	.	.	.	1	1
$448_1 = \chi_{16+}$	.	.	1	1	1	1	.	.	.	.	1	1
$288_1 = \chi_{19,0}$	.	.	1	.	.	.	.	.	1	.	1	.
$288_2 = \chi_{19,1}$	.	.	.	1	.	.	.	.	.	1	.	1
$336_1 = \chi_{21,0}$	.	.	.	.	1	.	1	.	.	1	.	1
$336_2 = \chi_{21,1}$	.	.	.	.	.	1	.	1	1	.	1	.

$$\begin{array}{ll}
\varphi_{1,0} = 1_1 & \varphi_{4,0} = 41_1 \\
\varphi_{1,1} = 1_2 & \varphi_{4,1} = 41_2 \\
\varphi_{2,0} = 14_1 & \varphi_{6,0} = 85_1 \\
\varphi_{2,1} = 14_2 & \varphi_{6,1} = 85_2 \\
\varphi_{3,0} = 21_1 & \varphi_{9,0} = 189_1 \\
\varphi_{3,1} = 21_2 & \varphi_{9,1} = 189_2
\end{array}$$

Block 2:	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{7,0}$	$\varphi_{7,1}$
$140_1 = \chi_{8+}$	1	1	.	.
$90_1 = \chi_{10,0}$	.	.	1	.
$90_2 = \chi_{10,1}$	.	.	.	1
$160_1 = \chi_{12,0}$	1	.	1	.
$160_2 = \chi_{12,1}$	.	1	.	1

$$\begin{array}{ll}
\varphi_{5,0} = 70_1 & \\
\varphi_{5,1} = 70_2 & \\
\varphi_{7,0} = 90_1 & \\
\varphi_{7,1} = 90_2 &
\end{array}$$

Block 9:	$\varphi_{12,0}$	$\varphi_{12,1}$	$\varphi_{13,0}$	$\varphi_{13,1}$	$\varphi_{16,0}$	$\varphi_{16,1}$	$\varphi_{17,0}$	$\varphi_{17,1}$	$\varphi_{18,0}$	$\varphi_{18,1}$	$\varphi_{19,0}$
$12_1 = \chi_{22+}$	1	1	.	.	.	.	.	.	.	.	.
$14_1 = \chi_{24,0}$	.	.	1	.	.	.	.	.	.	.	.
$14_2 = \chi_{24,1}$	.	.	.	1	.	.	.	.	.	.	.
$112_1 = \chi_{27+}$	.	.	.	.	1	1	.	.	.	.	.
$128_1 = \chi_{29+}$	.	.	.	.	.	.	1	1	.	.	.
$84_1 = \chi_{31,0}$	1	.	.	1	.	.	1	.	.	.	.
$84_2 = \chi_{31,1}$	.	1	1	.	.	.	.	1	.	.	.
$252_1 = \chi_{32+}$	1	1	.	.	1	1	1	1	.	.	.
$216_1 = \chi_{34,0}$	.	.	.	1	.	.	.	.	.	.	1
$216_2 = \chi_{34,1}$	.	.	1	.	.	.	.	.	.	.	.
$252_2 = \chi_{35,0}$	1	.	.	.	1	.	.	.	.	1	.
$252_3 = \chi_{35,1}$	.	1	.	.	.	1	.	.	1	.	.
$336_3 = \chi_{36,0}$	.	.	1	.	1	.	.	1	.	.	.
$336_4 = \chi_{36,1}$	.	.	.	1	.	1	1	.	.	.	1
$448_2 = \chi_{38,0}$	.	.	.	.	.	1	.	.	1	.	1
$448_3 = \chi_{38,1}$	.	.	.	.	1	.	.	.	.	1	.

(Block 9:)	$\varphi_{19,1}$		
$12_1 = \chi_{22+}$	.		
$14_1 = \chi_{24,0}$	.	$\varphi_{12,0} =$	6_1
$14_2 = \chi_{24,1}$	.	$\varphi_{12,1} =$	6_2
$112_1 = \chi_{27+}$	.	$\varphi_{13,0} =$	14_3
$128_1 = \chi_{29+}$	.	$\varphi_{13,1} =$	14_4
$84_1 = \chi_{31,0}$	.	$\varphi_{16,0} =$	56_1
$84_2 = \chi_{31,1}$	.	$\varphi_{16,1} =$	56_2
$252_1 = \chi_{32+}$	.	$\varphi_{17,0} =$	64_1
$216_1 = \chi_{34,0}$	.	$\varphi_{17,1} =$	64_2
$216_2 = \chi_{34,1}$	1	$\varphi_{18,0} =$	190_1
$252_2 = \chi_{35,0}$	.	$\varphi_{18,1} =$	190_2
$252_3 = \chi_{35,1}$	.	$\varphi_{19,0} =$	202_1
$336_3 = \chi_{36,0}$	1	$\varphi_{19,1} =$	202_2
$336_4 = \chi_{36,1}$	.		
$448_2 = \chi_{38,0}$	.		
$448_3 = \chi_{38,1}$	1		