

$G_2(4).2 \pmod{5}$

	blocks	defect	matrix		blocks	defect	matrix
$G :$	1	2	16×12		13	1	5×4
	2	1	5×4		14	0	$5850_1 = \chi_{17+}, \varphi_{14+}$
	3	0	$300_1 = \chi_{4,0}, \varphi_{4,0}$		15	0	$2925_1 = \chi_{19,0}, \varphi_{16,0}$
	4	0	$300_2 = \chi_{4,1}, \varphi_{4,1}$		16	0	$2925_2 = \chi_{19,1}, \varphi_{16,1}$
	$5 = \overline{3}$	0	$300_3 = \chi_{5,0}, \varphi_{5,0}$		17	0	$9450_1 = \chi_{30+}, \varphi_{19+}$
	$6 = \overline{4}$	0	$300_4 = \chi_{5,1}, \varphi_{5,1}$	$2.G :$	18	2	16×12
	7	0	$350_1 = \chi_{6,0}, \varphi_{6,0}$		19	1	5×4
	8	0	$350_2 = \chi_{6,1}, \varphi_{6,1}$		20	0	$3600_1 = \chi_{39+}, \varphi_{26+}$
	9	0	$650_1 = \chi_{10,0}, \varphi_{10,0}$		21	0	$3600_2 = \chi_{47,0}, \varphi_{31,0}$
	10	0	$650_2 = \chi_{10,1}, \varphi_{10,1}$		22 = $\overline{21}$	0	$3600_3 = \chi_{47,1}, \varphi_{31,1}$
	11	0	$1300_1 = \chi_{15,0}, \varphi_{11,0}$		23	0	$7800_1 = \chi_{50+}, \varphi_{32+}$
	12	0	$1300_2 = \chi_{15,1}, \varphi_{11,1}$				

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{7,0}$	$\varphi_{7,1}$	$\varphi_{8,0}$	$\varphi_{8,1}$	$\varphi_{9,0}$	$\varphi_{9,1}$	$\varphi_{13,0}$	$\varphi_{13,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.	.	.	.	.	.	.
$78_1 = \chi_{3,0}$	.	.	1	.	.	.	.	.	.	.	.	.
$78_2 = \chi_{3,1}$	.	.	.	1	.	.	.	.	.	.	.	.
$364_1 = \chi_{7,0}$	1	.	.	.	1	.	.	.	.	.	.	.
$364_2 = \chi_{7,1}$	.	1	.	.	.	1	.	.	.	.	.	.
$364_3 = \chi_{8,0}$	1	.	.	.	.	.	1	.	.	.	.	.
$364_4 = \chi_{8,1}$	.	1	.	.	.	.	.	1	.	.	.	.
$378_1 = \chi_{9,0}$	.	.	.	.	.	.	.	.	1	.	.	.
$378_2 = \chi_{9,1}$	.	.	.	.	.	.	.	.	.	1	.	.
$1638_1 = \chi_{11+}$	.	.	1	1	1	1	.	.	1	1	.	.
$1638_2 = \chi_{13+}$	.	.	1	1	.	.	1	1	1	1	.	.
$6552_1 = \chi_{20+}$	.	.	.	.	1	1	.	.	1	1	1	1
$6552_2 = \chi_{22+}$	.	.	.	.	.	.	1	1	1	1	1	1
$4096_1 = \chi_{28,0}$	1	.	1	.	1	.	1	.	1	1	1	.
$4096_2 = \chi_{28,1}$	.	1	.	1	.	1	.	1	1	1	.	1

$$\begin{array}{ll}
 \varphi_{1,0} & = 1_1 \\
 \varphi_{1,1} & = 1_2 \\
 \varphi_{3,0} & = 78_1 \\
 \varphi_{3,1} & = 78_2 \\
 \varphi_{7,0} & = 363_1 \\
 \varphi_{7,1} & = 363_2 \\
 \varphi_{8,0} & = 363_3 \\
 \varphi_{8,1} & = 363_4 \\
 \varphi_{9,0} & = 378_1 \\
 \varphi_{9,1} & = 378_2 \\
 \varphi_{13,0} & = 2535_1 \\
 \varphi_{13,1} & = 2535_2
 \end{array}$$

Block 2:	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{18,0}$	$\varphi_{18,1}$
$65_1 = \chi_{2,0}$	1	.	.	.
$65_2 = \chi_{2,1}$	.	1	.	.
$8190_2 = \chi_{26+}$	.	.	1	1
$4160_1 = \chi_{29,0}$	1	.	1	.
$4160_2 = \chi_{29,1}$	.	1	.	1

$$\begin{aligned}
\varphi_{2,0} &= 65_1 \\
\varphi_{2,1} &= 65_2 \\
\varphi_{18,0} &= 4095_3 \\
\varphi_{18,1} &= 4095_4
\end{aligned}$$

Block 13:	$\varphi_{12,0}$	$\varphi_{12,1}$	$\varphi_{17,0}$	$\varphi_{17,1}$
$1365_1 = \chi_{16,0}$	1	.	.	.
$1365_2 = \chi_{16,1}$	.	1	.	.
$8190_1 = \chi_{24+}$	.	.	1	1
$5460_1 = \chi_{32,0}$	1	.	1	.
$5460_2 = \chi_{32,1}$	.	1	.	1

$$\begin{aligned}
\varphi_{12,0} &= 1365_1 \\
\varphi_{12,1} &= 1365_2 \\
\varphi_{17,0} &= 4095_1 \\
\varphi_{17,1} &= 4095_2
\end{aligned}$$

Block 18:	$\varphi_{21,0}$	$\varphi_{21,1}$	$\varphi_{22,0}$	$\varphi_{22,1}$	$\varphi_{23,0}$	$\varphi_{23,1}$	$\varphi_{28,0}$	$\varphi_{28,1}$	$\varphi_{29,0}$	$\varphi_{29,1}$	$\varphi_{30,0}$
$12_1 = \chi_{33,0}$	1	.	.	.	.	.	.	.	.	.	.
$12_2 = \chi_{33,1}$	.	1	.	.	.	.	.	.	.	.	.
$208_1 = \chi_{34+}$	1	1	1	1	.	.	.	.	.	.	.
$364_5 = \chi_{36,0}$	.	.	.	.	1	.	.	.	.	.	.
$364_6 = \chi_{36,1}$	.	.	.	.	.	1	.	.	.	.	.
$2016_1 = \chi_{43,0}$	.	.	1	.	.	.	1	.	.	.	.
$2016_2 = \chi_{43,1}$	.	.	.	1	.	.	.	1	.	.	.
$4368_1 = \chi_{44+}$	1	1	.	.	.	.	.	.	1	1	.
$3276_1 = \chi_{46,0}$	.	.	.	.	.	.	.	.	.	.	1
$3276_2 = \chi_{46,1}$	.	.	.	.	.	.	.	.	.	.	.
$7488_1 = \chi_{48+}$	1	1	1	1	1	1	.	.	.	.	1
$4096_3 = \chi_{52,0}$	.	.	.	.	.	.	1	.	.	1	.
$4096_4 = \chi_{52,1}$	.	.	.	.	.	.	.	1	1	.	.
$11648_1 = \chi_{53+}$	1	1	.	.	1	1	.	.	1	1	1
$7488_2 = \chi_{55,0}$	1	1	1	.	.	.	1	.	.	1	.
$7488_3 = \chi_{55,1}$	1	1	.	1	.	.	.	1	1	.	1

(Block 18:)	$\varphi_{30,1}$		
$12_1 = \chi_{33,0}$	.		
$12_2 = \chi_{33,1}$	.	$\varphi_{21,0} =$	12_1
$208_1 = \chi_{34+}$	.	$\varphi_{21,1} =$	12_2
$364_5 = \chi_{36,0}$	.	$\varphi_{22,0} =$	92_1
$364_6 = \chi_{36,1}$	.	$\varphi_{22,1} =$	92_2
$2016_1 = \chi_{43,0}$	.	$\varphi_{23,0} =$	364_1
$2016_2 = \chi_{43,1}$	.	$\varphi_{23,1} =$	364_2
$4368_1 = \chi_{44+}$	.	$\varphi_{28,0} =$	1924_1
$3276_1 = \chi_{46,0}$	.	$\varphi_{28,1} =$	1924_2
$3276_2 = \chi_{46,1}$	1	$\varphi_{29,0} =$	2172_1
$7488_1 = \chi_{48+}$	1	$\varphi_{29,1} =$	2172_2
$4096_3 = \chi_{52,0}$	.	$\varphi_{30,0} =$	3276_1
$4096_4 = \chi_{52,1}$	.	$\varphi_{30,1} =$	3276_2
$11648_1 = \chi_{53+}$	1		
$7488_2 = \chi_{55,0}$	1		
$7488_3 = \chi_{55,1}$	.		

Block 19:	$\varphi_{24,0}$	$\varphi_{24,1}$	$\varphi_{25,0}$	$\varphi_{25,1}$		
$560_1 = \chi_{37,0}$	1	.	.	.	$\varphi_{24,0} =$	560_1
$560_2 = \chi_{37,1}$	.	1	.	.	$\varphi_{24,1} =$	560_2
$1260_1 = \chi_{38,0}$	.	.	1	.	$\varphi_{25,0} =$	1260_1
$1260_2 = \chi_{38,1}$	.	.	.	1	$\varphi_{25,1} =$	1260_2
$3640_1 = \chi_{41+}$	1	1	1	1		