

$S_9 \pmod{3}$

	blocks	defect	matrix
$G :$	1	4	22×10
	2	1	3×2
	3	1	3×2
	4	0	$162_1 = \chi_{15,0}, \varphi_{7,0}$
	5	0	$162_2 = \chi_{15,1}, \varphi_{7,1}$
$2.G :$	6	4	12×6

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{6,0}$	$\varphi_{6,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.	.	.	.	.
$8_1 = \chi_{2,0}$	1	.	1	.	.	.	.	.	.	.
$8_2 = \chi_{2,1}$	.	1	.	1	.	.	.	.	.	.
$42_1 = \chi_{3+}$	.	.	.	.	1	1	.	.	.	.
$28_1 = \chi_{6,0}$	.	.	1	.	1	.	.	.	.	.
$28_2 = \chi_{6,1}$	.	.	.	1	.	1	.	.	.	.
$70_1 = \chi_{7+}$	.	.	.	.	.	.	1	1	.	.
$42_2 = \chi_{9,0}$	.	1	.	.	.	.	.	.	1	.
$42_3 = \chi_{9,1}$	1	.	.	.	.	.	.	.	.	1
$48_1 = \chi_{10,0}$	.	.	1	.	.	.	.	.	1	.
$48_2 = \chi_{10,1}$	.	.	.	1	.	.	.	.	.	1
$56_1 = \chi_{11,0}$	.	.	.	.	1	.	1	.	.	.
$56_2 = \chi_{11,1}$	.	.	.	.	.	1	.	1	.	.
$84_1 = \chi_{12,0}$	.	1	.	1	.	.	1	.	1	.
$84_2 = \chi_{12,1}$	1	.	1	.	.	.	.	1	.	1
$105_1 = \chi_{13,0}$	1	.	1	.	1	.	1	.	1	.
$105_2 = \chi_{13,1}$	.	1	.	1	.	1	.	1	.	1
$120_1 = \chi_{14,0}$	1	1	1	.	.	.	1	1	1	.
$120_2 = \chi_{14,1}$	1	1	.	1	.	.	1	1	.	1
$168_1 = \chi_{16,0}$	.	1	1	1	1	1	1	1	1	.
$168_2 = \chi_{16,1}$	1	.	1	1	1	1	1	1	.	1

$$\begin{array}{ll}
\varphi_{1,0} = 1_1 & \varphi_{3,1} = 21_2 \\
\varphi_{1,1} = 1_2 & \varphi_{5,0} = 35_1 \\
\varphi_{2,0} = 7_1 & \varphi_{5,1} = 35_2 \\
\varphi_{2,1} = 7_2 & \varphi_{6,0} = 41_1 \\
\varphi_{3,0} = 21_1 & \varphi_{6,1} = 41_2
\end{array}$$

Block 2:	$\varphi_{4,0}$	$\varphi_{8,1}$		
$27_1 = \chi_{5,0}$	1	.	$\varphi_{4,0} =$	27_1
$189_2 = \chi_{17,1}$	.	1	$\varphi_{8,1} =$	189_2
$216_2 = \chi_{18,1}$	1	1		

Block 3:	$\varphi_{4,1}$	$\varphi_{8,0}$		
$27_2 = \chi_{5,1}$	1	.	$\varphi_{4,1} =$	27_2
$189_1 = \chi_{17,0}$	.	1	$\varphi_{8,0} =$	189_1
$216_1 = \chi_{18,0}$	1	1		

Block 6:	$\varphi_{9,0}$	$\varphi_{9,1}$	$\varphi_{10,0}$	$\varphi_{10,1}$	$\varphi_{11,0}$	$\varphi_{11,1}$		
$16_1 = \chi_{19+}$	1	1	.	.	.	.		
$96_1 = \chi_{21+}$	.	.	1	1	.	.		
$56_3 = \chi_{23,0}$	1	.	.	1	.	.	$\varphi_{9,0} =$	8_1
$56_4 = \chi_{23,1}$	.	1	1	.	.	.	$\varphi_{9,1} =$	8_2
$112_1 = \chi_{24,0}$	1	.	.	.	.	1	$\varphi_{10,0} =$	48_1
$112_2 = \chi_{24,1}$	.	1	.	.	1	.	$\varphi_{10,1} =$	48_2
$240_1 = \chi_{25+}$	2	2	.	.	1	1	$\varphi_{11,0} =$	104_1
$160_1 = \chi_{27,0}$	.	1	1	.	1	.	$\varphi_{11,1} =$	104_2
$160_2 = \chi_{27,1}$	1	.	.	1	.	1		
$336_1 = \chi_{28+}$	2	2	1	1	1	1		
$224_1 = \chi_{30,0}$	1	1	.	.	1	1		
$224_2 = \chi_{30,1}$	1	1	.	.	1	1		