

## $S_6 \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	$5 \times 4$
	2	0	$5_1 = \chi_{2,0}, \varphi_{2,0}$
	3	0	$5_2 = \chi_{2,1}, \varphi_{2,1}$
	4	0	$5_3 = \chi_{3,0}, \varphi_{3,0}$
	5	0	$5_4 = \chi_{3,1}, \varphi_{3,1}$
	6	0	$10_1 = \chi_{7,0}, \varphi_{5,0}$

	blocks	defect	matrix
	7	0	$10_2 = \chi_{7,1}, \varphi_{5,1}$
$2.G :$	8	1	$5 \times 4$
	9	0	$20_1 = \chi_{12+}, \varphi_{8+}$
$3.G :$	10	1	$4 \times 2$
	11	0	$30_1 = \chi_{18+}, \varphi_{12+}$
$6.G :$	12	1	$4 \times 2$

<b>Block 1:</b>	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{4,0}$	$\varphi_{4,1}$
$1_1 = \chi_{1,0}$	1	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.
$16_1 = \chi_{4+}$	.	.	1	1
$9_1 = \chi_{6,0}$	1	.	1	.
$9_2 = \chi_{6,1}$	.	1	.	1

$$\begin{aligned} \varphi_{1,0} &= 1_1 \\ \varphi_{1,1} &= 1_2 \\ \varphi_{4,0} &= 8_1 \\ \varphi_{4,1} &= 8_2 \end{aligned}$$

<b>Block 8:</b>	$\varphi_{6,0}$	$\varphi_{6,1}$	$\varphi_{7,0}$	$\varphi_{7,1}$
$4_1 = \chi_{8,0}$	1	.	.	.
$4_2 = \chi_{8,1}$	.	1	.	.
$4_3 = \chi_{9,0}$	.	.	1	.
$4_4 = \chi_{9,1}$	.	.	.	1
$16_2 = \chi_{10+}$	1	1	1	1

$$\begin{aligned} \varphi_{6,0} &= 4_1 \\ \varphi_{6,1} &= 4_2 \\ \varphi_{7,0} &= 4_3 \\ \varphi_{7,1} &= 4_4 \end{aligned}$$

<b>Block 10:</b>	$\varphi_{10+}$	$\varphi_{11+}$
$6_1 = \chi_{14+}$	1	.
$6_2 = \chi_{15+}$	1	.
$12_1 = \chi_{16+}$	.	1
$18_1 = \chi_{17+}$	1	1

$$\begin{aligned} \varphi_{10+} &= 6_1 \\ \varphi_{11+} &= 12_1 \end{aligned}$$

<b>Block 12:</b>	$\varphi_{13+}$	$\varphi_{14+}$
$12_2 = \chi_{19+}$	1	.
$12_3 = \chi_{20+}$	.	1
$24_1 = \chi_{21+}$	1	1
$24_2 = \chi_{22+}$	1	1

$$\begin{aligned} \varphi_{13+} &= 12_2 \\ \varphi_{14+} &= 12_3 \end{aligned}$$