

$S_7 \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	1	5×4
	3	0	$20_1 = \chi_{3+}, \varphi_{4+}$
	4	0	$15_1 = \chi_{7,0}, \varphi_{7,0}$
	5	0	$15_2 = \chi_{7,1}, \varphi_{7,1}$
	6	0	$35_1 = \chi_{9,0}, \varphi_{8,0}$
	7	0	$35_2 = \chi_{9,1}, \varphi_{8,1}$
$2.G :$	8	1	4×2

	blocks	defect	matrix
	9	0	$20_2 = \chi_{14,0}, \varphi_{13,0}$
	10	0	$20_3 = \chi_{14,1}, \varphi_{13,1}$
	11	0	$20_4 = \chi_{15,0}, \varphi_{14,0}$
	12	0	$20_5 = \chi_{15,1}, \varphi_{14,1}$
$3.G :$	13	1	5×4
	14	0	$30_1 = \chi_{18+}, \varphi_{17+}$
	15	0	$30_2 = \chi_{19+}, \varphi_{18+}$
$6.G :$	16	1	5×4

Block 1:	$\varphi_{1,0}$	$\varphi_{2,1}$	$\varphi_{3,1}$	$\varphi_{6,0}$
$1_1 = \chi_{1,0}$	1	.	.	.
$6_2 = \chi_{2,1}$	.	1	.	.
$14_2 = \chi_{5,1}$	.	1	1	.
$14_3 = \chi_{6,0}$	1	.	.	1
$21_1 = \chi_{8,0}$	.	.	1	1

$$\begin{aligned} \varphi_{1,0} &= 1_1 \\ \varphi_{2,1} &= 6_2 \\ \varphi_{3,1} &= 8_2 \\ \varphi_{6,0} &= 13_1 \end{aligned}$$

Block 2:	$\varphi_{1,1}$	$\varphi_{2,0}$	$\varphi_{3,0}$	$\varphi_{6,1}$
$1_2 = \chi_{1,1}$	1	.	.	.
$6_1 = \chi_{2,0}$	.	1	.	.
$14_1 = \chi_{5,0}$	.	1	1	.
$14_4 = \chi_{6,1}$	1	.	.	1
$21_2 = \chi_{8,1}$	.	.	1	1

$$\begin{aligned} \varphi_{1,1} &= 1_2 \\ \varphi_{2,0} &= 6_1 \\ \varphi_{3,0} &= 8_1 \\ \varphi_{6,1} &= 13_2 \end{aligned}$$

Block 8:	φ_{9+}	φ_{11+}
$8_1 = \chi_{10+}$	1	.
$28_1 = \chi_{12+}$	.	1
$36_1 = \chi_{16,0}$	1	1
$36_2 = \chi_{16,1}$	1	1

$$\begin{aligned} \varphi_{9+} &= 8_3 \\ \varphi_{11+} &= 28_1 \end{aligned}$$

Block 13:	φ_{15+}	φ_{16+}	φ_{19+}	φ_{20+}
$12_1 = \chi_{17+}$	.	1	.	.
$42_1 = \chi_{20+}$	.	.	.	1
$42_2 = \chi_{21+}$	1	.	1	.
$48_1 = \chi_{22+}$	1	.	.	1
$48_2 = \chi_{23+}$	.	1	1	.

$$\begin{aligned} \varphi_{15+} &= 6_3 \\ \varphi_{16+} &= 12_1 \\ \varphi_{19+} &= 36_1 \\ \varphi_{20+} &= 42_1 \end{aligned}$$

Block 16:	φ_{21+}	φ_{22+}	φ_{23+}	φ_{24+}
$12_2 = \chi_{24+}$	1	.	.	.
$12_3 = \chi_{25+}$	.	1	.	.
$48_3 = \chi_{26+}$	1	1	1	.
$48_4 = \chi_{27+}$	.	.	.	1
$72_1 = \chi_{28+}$	.	.	1	1

$$\begin{aligned} \varphi_{21+} &= 12_2 \\ \varphi_{22+} &= 12_3 \\ \varphi_{23+} &= 24_1 \\ \varphi_{24+} &= 48_1 \end{aligned}$$