

$O_8^+(2).3 \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	7×6
	2	1	7×6
	$3 = \overline{2}$	1	7×6
	4	0	$28_1 = \chi_{2,0}, \varphi_{2,0}$
	5	0	$28_2 = \chi_{2,1}, \varphi_{2,1}$
	$6 = \overline{5}$	0	$28_3 = \chi_{2,2}, \varphi_{2,2}$
	7	0	$105_1 = \chi_{3+}, \varphi_{3+}$
	8	0	$252_1 = \chi_{7+}, \varphi_{7+}$
	9	0	$175_1 = \chi_{10,0}, \varphi_{10,0}$
	10	0	$175_2 = \chi_{10,1}, \varphi_{10,1}$
	$11 = \overline{10}$	0	$175_3 = \chi_{10,2}, \varphi_{10,2}$
	12	0	$630_1 = \chi_{11+}, \varphi_{11+}$
	13	0	$350_1 = \chi_{15,0}, \varphi_{15,0}$
	14	0	$350_2 = \chi_{15,1}, \varphi_{15,1}$
	$15 = \overline{14}$	0	$350_3 = \chi_{15,2}, \varphi_{15,2}$
	16	0	$525_1 = \chi_{16,0}, \varphi_{16,0}$
	17	0	$525_2 = \chi_{16,1}, \varphi_{16,1}$
	$18 = \overline{17}$	0	$525_3 = \chi_{16,2}, \varphi_{16,2}$
	19	0	$1701_1 = \chi_{17+}, \varphi_{17+}$
	20	0	$700_1 = \chi_{20,0}, \varphi_{20,0}$
	21	0	$700_2 = \chi_{20,1}, \varphi_{20,1}$
	$22 = \overline{21}$	0	$700_3 = \chi_{20,2}, \varphi_{20,2}$
	23	0	$2100_1 = \chi_{21+}, \varphi_{21+}$
	24	0	$2520_1 = \chi_{24+}, \varphi_{24+}$
	25	0	$3150_1 = \chi_{28+}, \varphi_{28+}$
	26	0	$4032_1 = \chi_{31+}, \varphi_{31+}$
	27	0	$1400_1 = \chi_{34,0}, \varphi_{34,0}$
	28	0	$1400_2 = \chi_{34,1}, \varphi_{34,1}$
	$29 = \overline{28}$	0	$1400_3 = \chi_{34,2}, \varphi_{34,2}$
	30	0	$4725_1 = \chi_{35+}, \varphi_{35+}$
	31	0	$6300_1 = \chi_{38+}, \varphi_{38+}$
	32	0	$6720_1 = \chi_{41+}, \varphi_{41+}$
	33	0	$6804_1 = \chi_{44+}, \varphi_{44+}$
	34	0	$8505_1 = \chi_{47+}, \varphi_{48+}$
	35	0	$4200_1 = \chi_{52,0}, \varphi_{52,0}$
	36	0	$4200_2 = \chi_{52,1}, \varphi_{52,1}$
	$37 = \overline{36}$	0	$4200_3 = \chi_{52,2}, \varphi_{52,2}$

Block 1:	$\varphi_{1,0}$	$\varphi_{6,0}$	$\varphi_{14,0}$	$\varphi_{27,0}$	$\varphi_{47,0}$	$\varphi_{51,0}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$50_1 = \chi_{6,0}$	.	1	.	.	.	.
$300_1 = \chi_{14,0}$	1	.	1	.	.	.
$972_1 = \chi_{27,0}$	.	1	.	1	.	.
$3200_1 = \chi_{50,0}$	.	.	.	1	1	.
$4096_1 = \chi_{51,0}$	.	.	1	.	.	1
$6075_1 = \chi_{53,0}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{1,0} &= 1_1 \\ \varphi_{6,0} &= 50_1 \\ \varphi_{14,0} &= 299_1 \\ \varphi_{27,0} &= 922_1 \\ \varphi_{47,0} &= 2278_1 \\ \varphi_{51,0} &= 3797_1 \end{aligned}$$

Block 2:	$\varphi_{1,1}$	$\varphi_{6,1}$	$\varphi_{14,1}$	$\varphi_{27,1}$	$\varphi_{47,1}$	$\varphi_{51,1}$
$1_2 = \chi_{1,1}$	1	.	.	.	.	.
$50_2 = \chi_{6,1}$	.	1	.	.	.	.
$300_2 = \chi_{14,1}$	1	.	1	.	.	.
$972_2 = \chi_{27,1}$	.	1	.	1	.	.
$3200_2 = \chi_{50,1}$	.	.	.	1	1	.
$4096_2 = \chi_{51,1}$	.	.	1	.	.	1
$6075_2 = \chi_{53,1}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{1,1} &= 1_2 \\ \varphi_{6,1} &= 50_2 \\ \varphi_{14,1} &= 299_2 \\ \varphi_{27,1} &= 922_2 \\ \varphi_{47,1} &= 2278_2 \\ \varphi_{51,1} &= 3797_2 \end{aligned}$$

Block 3:	$\varphi_{1,2}$	$\varphi_{6,2}$	$\varphi_{14,2}$	$\varphi_{27,2}$	$\varphi_{47,2}$	$\varphi_{51,2}$
$1_3 = \chi_{1,2}$	1	.	.	.	.	.
$50_3 = \chi_{6,2}$	.	1	.	.	.	.
$300_3 = \chi_{14,2}$	1	.	1	.	.	.
$972_3 = \chi_{27,2}$	.	1	.	1	.	.
$3200_3 = \chi_{50,2}$	.	.	.	1	1	.
$4096_3 = \chi_{51,2}$	.	.	1	.	.	1
$6075_3 = \chi_{53,2}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{1,2} &= 1_3 \\ \varphi_{6,2} &= 50_3 \\ \varphi_{14,2} &= 299_3 \\ \varphi_{27,2} &= 922_3 \\ \varphi_{47,2} &= 2278_3 \\ \varphi_{51,2} &= 3797_3 \end{aligned}$$