

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

	blocks	defect	matrix
$G :$	1	1	7×6
	2	1	7×6
	3	1	7×6
	4	0	$84_1 = \chi_{4,0}, \varphi_{4,0}$
	5	0	$84_2 = \chi_{4,1}, \varphi_{4,1}$
	6	0	$357_1 = \chi_{7,0}, \varphi_{7,0}$
	7	0	$357_2 = \chi_{7,1}, \varphi_{7,1}$
	8	0	$476_1 = \chi_{8,0}, \varphi_{8,0}$
	9	0	$476_2 = \chi_{8,1}, \varphi_{8,1}$
	10	0	$476_3 = \chi_{9,0}, \varphi_{9,0}$
	11	0	$476_4 = \chi_{9,1}, \varphi_{9,1}$
	12	0	$595_1 = \chi_{10,0}, \varphi_{10,0}$
	13	0	$595_2 = \chi_{10,1}, \varphi_{10,1}$
	14	0	$714_1 = \chi_{11,0}, \varphi_{11,0}$
	15	0	$714_2 = \chi_{11,1}, \varphi_{11,1}$
	16	0	$714_3 = \chi_{12,0}, \varphi_{12,0}$
	17	0	$714_4 = \chi_{12,1}, \varphi_{12,1}$
	18	0	$1071_1 = \chi_{14,0}, \varphi_{14,0}$
	19	0	$1071_2 = \chi_{14,1}, \varphi_{14,1}$
	20	0	$1071_3 = \chi_{15,0}, \varphi_{15,0}$
	21	0	$1071_4 = \chi_{15,1}, \varphi_{15,1}$

	blocks	defect	matrix
	22	0	$2142_1 = \chi_{16+}, \varphi_{16+}$
	23	0	$1190_1 = \chi_{18,0}, \varphi_{18,0}$
	24	0	$1190_2 = \chi_{18,1}, \varphi_{18,1}$
	25	0	$1344_1 = \chi_{19,0}, \varphi_{19,0}$
	26	0	$1344_2 = \chi_{19,1}, \varphi_{19,1}$
	27	0	$1428_1 = \chi_{20,0}, \varphi_{20,0}$
	28	0	$1428_2 = \chi_{20,1}, \varphi_{20,1}$
	29	0	$4284_1 = \chi_{21+}, \varphi_{23+}$
	30	0	$4284_2 = \chi_{23+}, \varphi_{25+}$
	31	0	$5670_1 = \chi_{29+}, \varphi_{28+}$
	32	0	$5670_2 = \chi_{31+}, \varphi_{30+}$
	33	0	$2856_1 = \chi_{33,0}, \varphi_{32,0}$
	34	0	$2856_2 = \chi_{33,1}, \varphi_{32,1}$
	35	0	$2856_3 = \chi_{34,0}, \varphi_{33,0}$
	36	0	$2856_4 = \chi_{34,1}, \varphi_{33,1}$
	37	0	$4284_3 = \chi_{37,0}, \varphi_{34,0}$
	38	0	$4284_4 = \chi_{37,1}, \varphi_{34,1}$
	39	0	$4760_1 = \chi_{38,0}, \varphi_{35,0}$
	40	0	$4760_2 = \chi_{38,1}, \varphi_{35,1}$
	41	0	$5355_1 = \chi_{39,0}, \varphi_{36,0}$
	42	0	$5355_2 = \chi_{39,1}, \varphi_{36,1}$

Block 1:	$\varphi_{1,0}$	$\varphi_{2,0}$	$\varphi_{5,0}$	$\varphi_{6,1}$	$\varphi_{21,0}$	$\varphi_{22,0}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$34_1 = \chi_{2,0}$	1	1	.	.	.	.
$204_1 = \chi_{5,0}$	.	1	1	.	.	.
$204_4 = \chi_{6,1}$	.	.	.	1	.	.
$2176_1 = \chi_{25,0}$	.	.	.	1	1	.
$2295_1 = \chi_{26,0}$	.	.	1	.	.	1
$4096_1 = \chi_{36,0}$	.	.	.	.	1	1

$$\begin{aligned}
 \varphi_{1,0} &= 1_1 \\
 \varphi_{2,0} &= 33_1 \\
 \varphi_{5,0} &= 171_1 \\
 \varphi_{6,1} &= 204_2 \\
 \varphi_{21,0} &= 1972_1 \\
 \varphi_{22,0} &= 2124_1
 \end{aligned}$$

Block 2:	$\varphi_{1,1}$	$\varphi_{2,1}$	$\varphi_{5,1}$	$\varphi_{6,0}$	$\varphi_{21,1}$	$\varphi_{22,1}$
$1_2 = \chi_{1,1}$	1	.	.	.	.	.
$34_2 = \chi_{2,1}$	1	1	.	.	.	.
$204_2 = \chi_{5,1}$	.	1	1	.	.	.
$204_3 = \chi_{6,0}$	.	.	.	1	.	.
$2176_2 = \chi_{25,1}$	.	.	.	1	1	.
$2295_2 = \chi_{26,1}$	.	.	1	.	.	1
$4096_2 = \chi_{36,1}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{1,1} &= 1_2 \\ \varphi_{2,1} &= 33_2 \\ \varphi_{5,1} &= 171_2 \\ \varphi_{6,0} &= 204_1 \\ \varphi_{21,1} &= 1972_2 \\ \varphi_{22,1} &= 2124_2 \end{aligned}$$

Block 3:	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{13,0}$	$\varphi_{13,1}$	$\varphi_{27,0}$	$\varphi_{27,1}$
$51_1 = \chi_{3,0}$	1	.	.	.	.	.
$51_2 = \chi_{3,1}$	.	1	.	.	.	.
$1020_1 = \chi_{13,0}$	1	.	1	.	.	.
$1020_2 = \chi_{13,1}$	.	1	.	1	.	.
$4590_1 = \chi_{27+}$	.	.	.	.	1	1
$3264_1 = \chi_{35,0}$	.	.	1	.	1	.
$3264_2 = \chi_{35,1}$	.	.	.	1	.	1

$$\begin{aligned} \varphi_{3,0} &= 51_1 \\ \varphi_{3,1} &= 51_2 \\ \varphi_{13,0} &= 969_1 \\ \varphi_{13,1} &= 969_2 \\ \varphi_{27,0} &= 2295_1 \\ \varphi_{27,1} &= 2295_2 \end{aligned}$$