

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

	blocks	defect	matrix
$G :$	1	1	7×6
	2	1	7×6
	$3 = \overline{2}$	1	7×6
	4	1	7×6
	5	0	$2457_1 = \chi_{9+}, \varphi_{9+}$
	6	0	$2275_1 = \chi_{12,0}, \varphi_{12,0}$
	7	0	$2275_2 = \chi_{12,1}, \varphi_{12,1}$
	$8 = \overline{7}$	0	$2275_3 = \chi_{12,2}, \varphi_{12,2}$
	9	0	$6825_1 = \chi_{13+}, \varphi_{13+}$
	10	0	$16380_1 = \chi_{17+}, \varphi_{17+}$
	11	0	$16380_2 = \chi_{20+}, \varphi_{20+}$
	12	0	$9450_1 = \chi_{23,0}, \varphi_{23,0}$
	13	0	$9450_2 = \chi_{23,1}, \varphi_{23,1}$
	$14 = \overline{13}$	0	$9450_3 = \chi_{23,2}, \varphi_{23,2}$
	15	0	$18200_1 = \chi_{25,0}, \varphi_{25,0}$
	16	0	$18200_2 = \chi_{25,1}, \varphi_{25,1}$
	$17 = \overline{16}$	0	$18200_3 = \chi_{25,2}, \varphi_{25,2}$
	18	0	$18200_4 = \chi_{26,0}, \varphi_{26,0}$
	19	0	$18200_5 = \chi_{26,1}, \varphi_{26,1}$
	$20 = \overline{19}$	0	$18200_6 = \chi_{26,2}, \varphi_{26,2}$
	21	0	$54600_1 = \chi_{27+}, \varphi_{27+}$
	22	0	$24192_1 = \chi_{36,0}, \varphi_{36,0}$
	23	0	$24192_2 = \chi_{36,1}, \varphi_{36,1}$
	$24 = \overline{23}$	0	$24192_3 = \chi_{36,2}, \varphi_{36,2}$
	25	0	$27300_1 = \chi_{37,0}, \varphi_{37,0}$
	26	0	$27300_2 = \chi_{37,1}, \varphi_{37,1}$
	$27 = \overline{26}$	0	$27300_3 = \chi_{37,2}, \varphi_{37,2}$
	28	0	$87360_1 = \chi_{38+}, \varphi_{38+}$
	29	0	$87360_2 = \chi_{41+}, \varphi_{41+}$
	30	0	$122850_1 = \chi_{44+}, \varphi_{44+}$
	31	0	$122850_2 = \chi_{47+}, \varphi_{47+}$
	32	0	$139776_1 = \chi_{50+}, \varphi_{50+}$
	33	0	$147420_1 = \chi_{53+}, \varphi_{53+}$
	34	0	$147420_2 = \chi_{56+}, \varphi_{56+}$
	35	0	$54600_2 = \chi_{59,0}, \varphi_{59,0}$
	36	0	$54600_3 = \chi_{59,1}, \varphi_{59,1}$
	$37 = \overline{36}$	0	$54600_4 = \chi_{59,2}, \varphi_{59,2}$
	38	0	$163800_1 = \chi_{60+}, \varphi_{60+}$
	39	0	$163800_2 = \chi_{63+}, \varphi_{63+}$
	40	0	$199017_1 = \chi_{66+}, \varphi_{66+}$

	blocks	defect	matrix
	41	0	$491400_1 = \chi_{69+}, \varphi_{69+}$
	42	0	$184275_1 = \chi_{72,0}, \varphi_{78,0}$
	43	0	$184275_2 = \chi_{72,1}, \varphi_{78,1}$
	$44 = \overline{43}$	0	$184275_3 = \chi_{72,2}, \varphi_{78,2}$
	45	0	$552825_1 = \chi_{73+}, \varphi_{79+}$
	46	0	$698880_1 = \chi_{83+}, \varphi_{83+}$
	47	0	$698880_2 = \chi_{86+}, \varphi_{86+}$
	48	0	$245700_1 = \chi_{89,0}, \varphi_{89,0}$
	49	0	$245700_2 = \chi_{89,1}, \varphi_{89,1}$
	$50 = \overline{49}$	0	$245700_3 = \chi_{89,2}, \varphi_{89,2}$
	51	0	$786240_1 = \chi_{90+}, \varphi_{90+}$
	52	0	$786240_2 = \chi_{93+}, \varphi_{93+}$
	53	0	$291200_1 = \chi_{96,0}, \varphi_{96,0}$
	54	0	$291200_2 = \chi_{96,1}, \varphi_{96,1}$
	$55 = \overline{54}$	0	$291200_3 = \chi_{96,2}, \varphi_{96,2}$
	56	0	$291200_4 = \chi_{97,0}, \varphi_{97,0}$
	57	0	$291200_5 = \chi_{97,1}, \varphi_{97,1}$
	$58 = \overline{57}$	0	$291200_6 = \chi_{97,2}, \varphi_{97,2}$
	59	0	$873600_1 = \chi_{98+}, \varphi_{98+}$
	60	0	$1257984_1 = \chi_{105+}, \varphi_{102+}$
	61	0	$1397760_1 = \chi_{108+}, \varphi_{105+}$
	62	0	$491400_2 = \chi_{111,0}, \varphi_{108,0}$
	63	0	$491400_3 = \chi_{111,1}, \varphi_{108,1}$
	$64 = \overline{63}$	0	$491400_4 = \chi_{111,2}, \varphi_{108,2}$
	65	0	$716800_1 = \chi_{113,0}, \varphi_{109,0}$
	66	0	$716800_2 = \chi_{113,1}, \varphi_{109,1}$
	$67 = \overline{66}$	0	$716800_3 = \chi_{113,2}, \varphi_{109,2}$
	68	0	$716800_4 = \chi_{114,0}, \varphi_{110,0}$
	69	0	$716800_5 = \chi_{114,1}, \varphi_{110,1}$
	$70 = \overline{69}$	0	$716800_6 = \chi_{114,2}, \varphi_{110,2}$

Block 1:	$\varphi_{1,0}$	$\varphi_{8,0}$	$\varphi_{16,0}$	$\varphi_{24,0}$	$\varphi_{82,0}$	$\varphi_{101,0}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$300_1 = \chi_{8,0}$	1	1	.	.	.	.
$2808_1 = \chi_{16,0}$	.	.	1	.	.	.
$17550_1 = \chi_{24,0}$	.	1	.	1	.	.
$218700_1 = \chi_{82,0}$	.	.	.	1	1	.
$332800_1 = \chi_{101,0}$	.	.	1	.	.	1
$531441_1 = \chi_{112,0}$	.	.	.	.	1	1

$$\begin{aligned}
\varphi_{1,0} &= 1_1 \\
\varphi_{8,0} &= 299_1 \\
\varphi_{16,0} &= 2808_1 \\
\varphi_{24,0} &= 17251_1 \\
\varphi_{82,0} &= 201449_1 \\
\varphi_{101,0} &= 329992_1
\end{aligned}$$

Block 2:	$\varphi_{1,1}$	$\varphi_{8,1}$	$\varphi_{16,1}$	$\varphi_{24,1}$	$\varphi_{82,1}$	$\varphi_{101,1}$
$1_2 = \chi_{1,1}$	1	.	.	.	.	.
$300_2 = \chi_{8,1}$	1	1	.	.	.	.
$2808_2 = \chi_{16,1}$	.	.	1	.	.	.
$17550_2 = \chi_{24,1}$	.	1	.	1	.	.
$218700_2 = \chi_{82,1}$	.	.	.	1	1	.
$332800_2 = \chi_{101,1}$	.	.	1	.	.	1
$531441_2 = \chi_{112,1}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{1,1} &= 1_2 \\ \varphi_{8,1} &= 299_2 \\ \varphi_{16,1} &= 2808_2 \\ \varphi_{24,1} &= 17251_2 \\ \varphi_{82,1} &= 201449_2 \\ \varphi_{101,1} &= 329992_2 \end{aligned}$$

Block 3:	$\varphi_{1,2}$	$\varphi_{8,2}$	$\varphi_{16,2}$	$\varphi_{24,2}$	$\varphi_{82,2}$	$\varphi_{101,2}$
$1_3 = \chi_{1,2}$	1	.	.	.	.	.
$300_3 = \chi_{8,2}$	1	1	.	.	.	.
$2808_3 = \chi_{16,2}$	.	.	1	.	.	.
$17550_3 = \chi_{24,2}$	.	1	.	1	.	.
$218700_3 = \chi_{82,2}$	.	.	.	1	1	.
$332800_3 = \chi_{101,2}$	.	.	1	.	.	1
$531441_3 = \chi_{112,2}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{1,2} &= 1_3 \\ \varphi_{8,2} &= 299_3 \\ \varphi_{16,2} &= 2808_3 \\ \varphi_{24,2} &= 17251_3 \\ \varphi_{82,2} &= 201449_3 \\ \varphi_{101,2} &= 329992_3 \end{aligned}$$

Block 4:	φ_{2+}	φ_{5+}	φ_{30+}	φ_{33+}	φ_{72+}	φ_{75+}
$780_1 = \chi_{2+}$	1	.	.	.	.	.
$780_2 = \chi_{5+}$	.	1	.	.	.	.
$70200_1 = \chi_{30+}$	1	.	1	.	.	.
$70200_2 = \chi_{33+}$	.	1	.	1	.	.
$568620_1 = \chi_{76+}$	.	.	1	.	1	.
$568620_2 = \chi_{79+}$	.	.	.	1	.	1
$998400_1 = \chi_{102+}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{2+} &= 780_1 \\ \varphi_{5+} &= 780_2 \\ \varphi_{30+} &= 69420_1 \\ \varphi_{33+} &= 69420_2 \\ \varphi_{72+} &= 499200_1 \\ \varphi_{75+} &= 499200_2 \end{aligned}$$