$O_8^+(3).4 \pmod 7$

	blocks	defect	matrix
$G:$	1	1	7×6
	2	1	7×6
	3	1	7×6
	$4 = \overline{2}$	1	7×6
	5	1	5×3
	6	1	5×3
	7	1	5×3
	8	0	$819_1 = \chi_{9,0}, \varphi_{9,0}$
	9	0	$819_2 = \chi_{9,1}, \varphi_{9,1}$
	10	0	$819_3 = \chi_{9,2}, \varphi_{9,2}$
	$11 = \overline{9}$	0	$819_4 = \chi_{9,3}, \varphi_{9,3}$
	12	0	$1638_1 = \chi_{10,0+}, \varphi_{10,0+}$
	13	0	$1638_2 = \chi_{10,1+}, \varphi_{10,1+}$
	14	0	$9100_1 = \chi_{12+}, \varphi_{12+}$
	15	0	$10920_1 = \chi_{17,0+}, \varphi_{17,0+}$
	16	0	$10920_2 = \chi_{17,1+}, \varphi_{17,1+}$
	17	0	$21840_1 = \chi_{18+}, \varphi_{18+}$
	18	0	$9450_1 = \chi_{23,0}, \varphi_{23,0}$
	19	0	$9450_2 = \chi_{23,1}, \varphi_{23,1}$
	20	0	$9450_3 = \chi_{23,2}, \varphi_{23,2}$
	$21 = \overline{19}$	0	$9450_4 = \chi_{23,3}, \varphi_{23,3}$
	22	0	$18200_1 = \chi_{25,0}, \varphi_{25,0}$
	23	0	$18200_2 = \chi_{25,1}, \varphi_{25,1}$
	24	0	$18200_3 = \chi_{25,2}, \varphi_{25,2}$
	$25 = \overline{23}$	0	$18200_4 = \chi_{25,3}, \varphi_{25,3}$
	26	0	$72800_1 = \chi_{26+}, \varphi_{26+}$
	27	0	$24192_1 = \chi_{36,0}, \varphi_{36,0}$
	28	0	$24192_2 = \chi_{36,1}, \varphi_{36,1}$
	29	0	$24192_3 = \chi_{36,2}, \varphi_{36,2}$
	$30 = \overline{28}$	0	$24192_4 = \chi_{36,3}, \varphi_{36,3}$
	31	0	$27300_1 = \chi_{37,0}, \varphi_{37,0}$
	32	0	$27300_2 = \chi_{37,1}, \varphi_{37,1}$
	33	0	$27300_3 = \chi_{37,2}, \varphi_{37,2}$
	$34 = \overline{32}$	0	$27300_4 = \chi_{37,3}, \varphi_{37,3}$
	35	0	$58240_1 = \chi_{38,0+}, \varphi_{38,0+}$
	36	0	$58240_2 = \chi_{38,1+}, \varphi_{38,1+}$
	37	0	$116480_1 = \chi_{39+}, \varphi_{39+}$
	38	0	$81900_1 = \chi_{44,0+}, \varphi_{44,0+}$
	39	0	$81900_2 = \chi_{44,1+}, \varphi_{44,1+}$
	40	0	$163800_1 = \chi_{45+}, \varphi_{45+}$

	blocks	defect	matrix
	41	0	$46592_1 = \chi_{50,0}, \varphi_{50,0}$
	42	0	$46592_2 = \chi_{50,1}, \varphi_{50,1}$
	43	0	$46592_3 = \chi_{50,2}, \varphi_{50,2}$
	$44 = \overline{42}$	0	$46592_4 = \chi_{50,3}, \varphi_{50,3}$
	45	0	$93184_1 = \chi_{51,0+}, \varphi_{51,0+}$
	46	0	$93184_2 = \chi_{51,1+}, \varphi_{51,1+}$
	47	0	$98280_1 = \chi_{53,0+}, \varphi_{53,0+}$
	48	0	$98280_2 = \chi_{53,1+}, \varphi_{53,1+}$
	49	0	$196560_1 = \chi_{54+}, \varphi_{54+}$
	50	0	$218400_1 = \chi_{59+}, \varphi_{59+}$
	51	0	$54600_1 = \chi_{63,0}, \varphi_{63,0}$
	52	0	$54600_2 = \chi_{63,1}, \varphi_{63,1}$
	53	0	$54600_3 = \chi_{63,2}, \varphi_{63,2}$
	$54 = \overline{52}$	0	$54600_4 = \chi_{63,3}, \varphi_{63,3}$
	55	0	$109200_1 = \chi_{64,0+}, \varphi_{64,0+}$
	56	0	$109200_2 = \chi_{64,1+}, \varphi_{64,1+}$
	57	0	$66339_1 = \chi_{66,0}, \varphi_{66,0}$
	58	0	$66339_2 = \chi_{66,1}, \varphi_{66,1}$
	59	0	$66339_3 = \chi_{66,2}, \varphi_{66,2}$
	$60 = \overline{58}$	0	$66339_4 = \chi_{66,3}, \varphi_{66,3}$
	61	0	$132678_1 = \chi_{67,0+}, \varphi_{67,0+}$
	62	0	$132678_2 = \chi_{67,1+}, \varphi_{67,1+}$
	63	0	$163800_2 = \chi_{69,0}, \varphi_{69,0}$
	64	0	$163800_3 = \chi_{69,1}, \varphi_{69,1}$
	65	0	$163800_4 = \chi_{69,2}, \varphi_{69,2}$
	$66 = \overline{64}$	0	$163800_5 = \chi_{69,3}, \varphi_{69,3}$
	67	0	$327600_1 = \chi_{70,0+}, \varphi_{70,0+}$
	68	0	$327600_2 = \chi_{70,1+}, \varphi_{70,1+}$
	69	0	$737100_1 = \chi_{72+}, \varphi_{78+}$
	70	0	$465920_1 = \chi_{83,0+}, \varphi_{83,0+}$
	71	0	$465920_2 = \chi_{83,1+}, \varphi_{83,1+}$
	72	0	$931840_1 = \chi_{84+}, \varphi_{84+}$
	73	0	$245700_1 = \chi_{89,0}, \varphi_{89,0}$
	74	0	$245700_2 = \chi_{89,1}, \varphi_{89,1}$
	75	0	$245700_3 = \chi_{89,2}, \varphi_{89,2}$
	$76 = \overline{74}$	0	$245700_4 = \chi_{89,3}, \varphi_{89,3}$
	77	0	$524160_1 = \chi_{90,0+}, \varphi_{90,0+}$
	78	0	$524160_2 = \chi_{90,1+}, \varphi_{90,1+}$
	79	0	$1048320_1 = \chi_{91+}, \varphi_{91+}$
	80	0	$291200_1 = \chi_{96,0}, \varphi_{96,0}$

	blocks	defect	matrix
	81	0	$291200_2 = \chi_{96,1}, \varphi_{96,1}$
	82	0	$291200_3 = \chi_{96,2}, \varphi_{96,2}$
	$83 = \overline{81}$	0	$291200_4 = \chi_{96,3}, \varphi_{96,3}$
	84	0	$1164800_1 = \chi_{97+}, \varphi_{97+}$
	85	0	$419328_1 = \chi_{105,0}, \varphi_{102,0}$
	86	0	$419328_2 = \chi_{105,1}, \varphi_{102,1}$
	87	0	$419328_3 = \chi_{105,2}, \varphi_{102,2}$
	$88 = \overline{86}$	0	$419328_4 = \chi_{105,3}, \varphi_{102,3}$
	89	0	$838656_1 = \chi_{106,0+}, \varphi_{103,0+}$
	90	0	$838656_2 = \chi_{106,1+}, \varphi_{103,1+}$
	91	0	$465920_3 = \chi_{108,0}, \varphi_{105,0}$
	92	0	$465920_4 = \chi_{108,1}, \varphi_{105,1}$
	93	0	$465920_5 = \chi_{108,2}, \varphi_{105,2}$
	$94 = \overline{92}$	0	$465920_6 = \chi_{108,3}, \varphi_{105,3}$
	95	0	$931840_2 = \chi_{109,0+}, \varphi_{106,0+}$
	96	0	$931840_3 = \chi_{109,1+}, \varphi_{106,1+}$
	97	0	$491400_1 = \chi_{111,0}, \varphi_{108,0}$
	98	0	$491400_2 = \chi_{111,1}, \varphi_{108,1}$
	99	0	$491400_3 = \chi_{111,2}, \varphi_{108,2}$
	$100 = \overline{98}$	0	$491400_4 = \chi_{111,3}, \varphi_{108,3}$
	101	0	$716800_1 = \chi_{113,0}, \varphi_{109,0}$
	102	0	$716800_2 = \chi_{113,1}, \varphi_{109,1}$
	103	0	$716800_3 = \chi_{113,2}, \varphi_{109,2}$
	$104 = \overline{102}$	0	$716800_4 = \chi_{113,3}, \varphi_{109,3}$
	105	0	$716800_5 = \chi_{114,0}, \varphi_{110,0}$
	106	0	$716800_6 = \chi_{114,1}, \varphi_{110,1}$
	107	0	$716800_7 = \chi_{114,2}, \varphi_{110,2}$
	$108 = \overline{106}$	0	$716800_8 = \chi_{114,3}, \varphi_{110,3}$

Block 1:	$\varphi_{1,0}$	$\varphi_{8,0}$	$\varphi_{16,2}$	$\varphi_{24,0}$	$\varphi_{82,2}$	$\varphi_{101,2}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$300_1 = \chi_{8,0}$	1	1	.	.	.	.
$2808_3 = \chi_{16,2}$	.	.	1	.	.	.
$17550_1 = \chi_{24,0}$	.	1	.	1	.	.
$218700_3 = \chi_{82,2}$	.	.	.	1	1	.
$332800_3 = \chi_{101,2}$	.	.	1	.	.	1
$531441_3 = \chi_{112,2}$	.	.	.	.	1	1

$\varphi_{1,0} = 1_1$
$\varphi_{8,0} = 299_1$
$\varphi_{16,2} = 2808_3$
$\varphi_{24,0} = 17251_1$
$\varphi_{82,2} = 201449_3$
$\varphi_{101,2} = 329992_3$

Block 2:	$\varphi_{1,1}$	$\varphi_{8,1}$	$\varphi_{16,3}$	$\varphi_{24,1}$	$\varphi_{82,3}$	$\varphi_{101,3}$
$1_2 = \chi_{1,1}$	1	.	.	.	.	.
$300_2 = \chi_{8,1}$	1	1	.	.	.	.
$2808_4 = \chi_{16,3}$	.	.	1	.	.	.
$17550_2 = \chi_{24,1}$	.	1	.	1	.	.
$218700_4 = \chi_{82,3}$	.	.	.	1	1	.
$332800_4 = \chi_{101,3}$	.	.	1	.	.	1
$531441_4 = \chi_{112,3}$	.	.	.	.	1	1

$\varphi_{1,1} = 1_2$
$\varphi_{8,1} = 299_2$
$\varphi_{16,3} = 2808_4$
$\varphi_{24,1} = 17251_2$
$\varphi_{82,3} = 201449_4$
$\varphi_{101,3} = 329992_4$

Block 3:	$\varphi_{1,2}$	$\varphi_{8,2}$	$\varphi_{16,0}$	$\varphi_{24,2}$	$\varphi_{82,0}$	$\varphi_{101,0}$
$1_3 = \chi_{1,2}$	1	.	.	.	.	.
$300_3 = \chi_{8,2}$	1	1	.	.	.	.
$2808_1 = \chi_{16,0}$	.	.	1	.	.	.
$17550_3 = \chi_{24,2}$	.	1	.	1	.	.
$218700_1 = \chi_{82,0}$	.	.	.	1	1	.
$332800_1 = \chi_{101,0}$	.	.	1	.	.	1
$531441_1 = \chi_{112,0}$	.	.	.	.	1	1

$\varphi_{1,2} = 1_3$
$\varphi_{8,2} = 299_3$
$\varphi_{16,0} = 2808_1$
$\varphi_{24,2} = 17251_3$
$\varphi_{82,0} = 201449_1$
$\varphi_{101,0} = 329992_1$

Block 4:	$\varphi_{1,3}$	$\varphi_{8,3}$	$\varphi_{16,1}$	$\varphi_{24,3}$	$\varphi_{82,1}$	$\varphi_{101,1}$
$1_4 = \chi_{1,3}$	1	.	.	.	.	.
$300_4 = \chi_{8,3}$	1	1	.	.	.	.
$2808_2 = \chi_{16,1}$	.	.	1	.	.	.
$17550_4 = \chi_{24,3}$	.	1	.	1	.	.
$218700_2 = \chi_{82,1}$	.	.	.	1	1	.
$332800_2 = \chi_{101,1}$	.	.	1	.	.	1
$531441_2 = \chi_{112,1}$	.	.	.	.	1	1

$\varphi_{1,3} = 1_4$
$\varphi_{8,3} = 299_4$
$\varphi_{16,1} = 2808_2$
$\varphi_{24,3} = 17251_4$
$\varphi_{82,1} = 201449_2$
$\varphi_{101,1} = 329992_2$

Block 5:	$\varphi_{2,0+}$	$\varphi_{30,0+}$	$\varphi_{72,0+}$
$520_1 = \chi_{2,0+}$	1	.	.
$46800_1 = \chi_{30,0+}$	1	1	.
$379080_2 = \chi_{76,1+}$	.	1	1
$332800_6 = \chi_{102,1}$	.	.	1
$332800_8 = \chi_{102,3}$	.	.	1

$\varphi_{2,0+} = 520_1$
$\varphi_{30,0+} = 46280_1$
$\varphi_{72,0+} = 332800_1$

Block 6:	$\varphi_{2,1+}$	$\varphi_{30,1+}$	$\varphi_{72,1+}$
$520_2 = \chi_{2,1+}$	1	.	.
$46800_2 = \chi_{30,1+}$	1	1	.
$379080_1 = \chi_{76,0+}$	.	1	1
$332800_5 = \chi_{102,0}$	.	.	1
$332800_7 = \chi_{102,2}$	.	.	1

$$\begin{aligned} \varphi_{2,1+} &= 520_2 \\ \varphi_{30,1+} &= 46280_2 \\ \varphi_{72,1+} &= 332800_2 \end{aligned}$$

Block 7:	φ_{3+}	φ_{31+}	φ_{73+}
$1040_1 = \chi_{3+}$	1	.	.
$93600_1 = \chi_{31+}$	1	1	.
$758160_1 = \chi_{77+}$	.	1	1
$665600_1 = \chi_{103,0+}$	.	.	1
$665600_2 = \chi_{103,1+}$	.	.	1

$$\begin{aligned} \varphi_{3+} &= 1040_1 \\ \varphi_{31+} &= 92560_1 \\ \varphi_{73+} &= 665600_1 \end{aligned}$$