

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

	blocks	defect	matrix
$G :$	1	1	7×6
	2	1	7×6
	3	1	7×6
	4	1	7×6
	5	0	$819_1 = \chi_9, \varphi_9$
	6	0	$819_2 = \chi_{10}, \varphi_{10}$
	7	0	$819_3 = \chi_{11}, \varphi_{11}$
	8	0	$2275_1 = \chi_{12}, \varphi_{12}$
	9	0	$2275_2 = \chi_{13}, \varphi_{13}$
	10	0	$2275_3 = \chi_{14}, \varphi_{14}$
	11	0	$2275_4 = \chi_{15}, \varphi_{15}$
	12	0	$5460_1 = \chi_{17}, \varphi_{17}$
	13	0	$5460_2 = \chi_{18}, \varphi_{18}$
	14	0	$5460_3 = \chi_{19}, \varphi_{19}$
	15	0	$5460_4 = \chi_{20}, \varphi_{20}$
	16	0	$5460_5 = \chi_{21}, \varphi_{21}$
	17	0	$5460_6 = \chi_{22}, \varphi_{22}$
	18	0	$9450_1 = \chi_{23}, \varphi_{23}$
	19	0	$18200_1 = \chi_{25}, \varphi_{25}$
	20	0	$18200_2 = \chi_{26}, \varphi_{26}$
	21	0	$18200_3 = \chi_{27}, \varphi_{27}$
	22	0	$18200_4 = \chi_{28}, \varphi_{28}$
	23	0	$18200_5 = \chi_{29}, \varphi_{29}$
	24	0	$24192_1 = \chi_{36}, \varphi_{36}$
	25	0	$27300_1 = \chi_{37}, \varphi_{37}$
	26	0	$29120_1 = \chi_{38}, \varphi_{38}$
	27	0	$29120_2 = \chi_{39}, \varphi_{39}$
	28	0	$29120_3 = \chi_{40}, \varphi_{40}$
	29	0	$29120_4 = \chi_{41}, \varphi_{41}$
	30	0	$29120_5 = \chi_{42}, \varphi_{42}$
	31	0	$29120_6 = \chi_{43}, \varphi_{43}$
	32	0	$40950_1 = \chi_{44}, \varphi_{44}$
	33	0	$40950_2 = \chi_{45}, \varphi_{45}$
	34	0	$40950_3 = \chi_{46}, \varphi_{46}$
	35	0	$40950_4 = \chi_{47}, \varphi_{47}$
	36	0	$40950_5 = \chi_{48}, \varphi_{48}$
	37	0	$40950_6 = \chi_{49}, \varphi_{49}$
	38	0	$46592_1 = \chi_{50}, \varphi_{50}$
	39	0	$46592_2 = \chi_{51}, \varphi_{51}$
	40	0	$46592_3 = \chi_{52}, \varphi_{52}$

	blocks	defect	matrix
	41	0	$49140_1 = \chi_{53}, \varphi_{53}$
	42	0	$49140_2 = \chi_{54}, \varphi_{54}$
	43	0	$49140_3 = \chi_{55}, \varphi_{55}$
	44	0	$49140_4 = \chi_{56}, \varphi_{56}$
	45	0	$49140_5 = \chi_{57}, \varphi_{57}$
	46	0	$49140_6 = \chi_{58}, \varphi_{58}$
	47	0	$54600_1 = \chi_{59}, \varphi_{59}$
	48	0	$54600_2 = \chi_{60}, \varphi_{60}$
	49	0	$54600_3 = \chi_{61}, \varphi_{61}$
	50	0	$54600_4 = \chi_{62}, \varphi_{62}$
	51	0	$54600_5 = \chi_{63}, \varphi_{63}$
	52	0	$54600_6 = \chi_{64}, \varphi_{64}$
	53	0	$54600_7 = \chi_{65}, \varphi_{65}$
	54	0	$66339_1 = \chi_{66}, \varphi_{66}$
	55	0	$66339_2 = \chi_{67}, \varphi_{67}$
	56	0	$66339_3 = \chi_{68}, \varphi_{68}$
	57	0	$163800_1 = \chi_{69}, \varphi_{69}$
	58	0	$163800_2 = \chi_{70}, \varphi_{70}$
	59	0	$163800_3 = \chi_{71}, \varphi_{71}$
	60	0	$184275_1 = \chi_{72}, \varphi_{72}$
	61	0	$184275_2 = \chi_{73}, \varphi_{73}$
	62	0	$184275_3 = \chi_{74}, \varphi_{74}$
	63	0	$184275_4 = \chi_{75}, \varphi_{75}$
	64	0	$232960_1 = \chi_{83}, \varphi_{83}$
	65	0	$232960_2 = \chi_{84}, \varphi_{84}$
	66	0	$232960_3 = \chi_{85}, \varphi_{85}$
	67	0	$232960_4 = \chi_{86}, \varphi_{86}$
	68	0	$232960_5 = \chi_{87}, \varphi_{87}$
	69	0	$232960_6 = \chi_{88}, \varphi_{88}$
	70	0	$245700_1 = \chi_{89}, \varphi_{89}$
	71	0	$262080_1 = \chi_{90}, \varphi_{90}$
	72	0	$262080_2 = \chi_{91}, \varphi_{91}$
	73	0	$262080_3 = \chi_{92}, \varphi_{92}$
	74	0	$262080_4 = \chi_{93}, \varphi_{93}$
	75	0	$262080_5 = \chi_{94}, \varphi_{94}$
	76	0	$262080_6 = \chi_{95}, \varphi_{95}$
	77	0	$291200_1 = \chi_{96}, \varphi_{96}$
	78	0	$291200_2 = \chi_{97}, \varphi_{97}$
	79	0	$291200_3 = \chi_{98}, \varphi_{98}$
	80	0	$291200_4 = \chi_{99}, \varphi_{99}$

	blocks	defect	matrix
	81	0	291200 ₅ = $\chi_{100}, \varphi_{100}$
	82	0	419328 ₁ = $\chi_{105}, \varphi_{102}$
	83	0	419328 ₂ = $\chi_{106}, \varphi_{103}$
	84	0	419328 ₃ = $\chi_{107}, \varphi_{104}$
	85	0	465920 ₁ = $\chi_{108}, \varphi_{105}$

	blocks	defect	matrix
	86	0	465920 ₂ = $\chi_{109}, \varphi_{106}$
	87	0	465920 ₃ = $\chi_{110}, \varphi_{107}$
	88	0	491400 ₁ = $\chi_{111}, \varphi_{108}$
	89	0	716800 ₁ = $\chi_{113}, \varphi_{109}$
	90	0	716800 ₂ = $\chi_{114}, \varphi_{110}$

Block 1:	φ_1	φ_8	φ_{16}	φ_{24}	φ_{82}	φ_{101}
$1_1 = \chi_1$	1	.	.	.	.	.
$300_1 = \chi_8$	1	1	.	.	.	.
$2808_1 = \chi_{16}$	.	.	1	.	.	.
$17550_1 = \chi_{24}$	.	1	.	1	.	.
$218700_1 = \chi_{82}$	.	.	.	1	1	.
$332800_1 = \chi_{101}$	.	.	1	.	.	1
$531441_1 = \chi_{112}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_8 &= 299_1 \\ \varphi_{16} &= 2808_1 \\ \varphi_{24} &= 17251_1 \\ \varphi_{82} &= 201449_1 \\ \varphi_{101} &= 329992_1 \end{aligned}$$

Block 2:	φ_2	φ_5	φ_{30}	φ_{33}	φ_{72}	φ_{75}
$260_1 = \chi_2$	1	.	.	.	.	.
$260_4 = \chi_5$	.	1	.	.	.	.
$23400_1 = \chi_{30}$	1	.	1	.	.	.
$23400_4 = \chi_{33}$	.	1	.	1	.	.
$189540_1 = \chi_{76}$	.	.	1	.	1	.
$189540_4 = \chi_{79}$	.	.	.	1	.	1
$332800_2 = \chi_{102}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_2 &= 260_1 \\ \varphi_5 &= 260_4 \\ \varphi_{30} &= 23140_1 \\ \varphi_{33} &= 23140_4 \\ \varphi_{72} &= 166400_1 \\ \varphi_{75} &= 166400_4 \end{aligned}$$

Block 3:	φ_3	φ_6	φ_{31}	φ_{34}	φ_{73}	φ_{76}
$260_2 = \chi_3$	1	.	.	.	.	.
$260_5 = \chi_6$	.	1	.	.	.	.
$23400_2 = \chi_{31}$	1	.	1	.	.	.
$23400_5 = \chi_{34}$	.	1	.	1	.	.
$189540_2 = \chi_{77}$	.	.	1	.	1	.
$189540_5 = \chi_{80}$	.	.	.	1	.	1
$332800_3 = \chi_{103}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_3 &= 260_2 \\ \varphi_6 &= 260_5 \\ \varphi_{31} &= 23140_2 \\ \varphi_{34} &= 23140_5 \\ \varphi_{73} &= 166400_2 \\ \varphi_{76} &= 166400_5 \end{aligned}$$

Block 4:	φ_4	φ_7	φ_{32}	φ_{35}	φ_{74}	φ_{77}
$260_3 = \chi_4$	1	.	.	.	.	.
$260_6 = \chi_7$	.	1	.	.	.	.
$23400_3 = \chi_{32}$	1	.	1	.	.	.
$23400_6 = \chi_{35}$	.	1	.	1	.	.
$189540_3 = \chi_{78}$	.	.	1	.	1	.
$189540_6 = \chi_{81}$	.	.	.	1	.	1
$332800_4 = \chi_{104}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_4 &= 260_3 \\ \varphi_7 &= 260_6 \\ \varphi_{32} &= 23140_3 \\ \varphi_{35} &= 23140_6 \\ \varphi_{74} &= 166400_3 \\ \varphi_{77} &= 166400_6 \end{aligned}$$