

$$O_8^-(3) \pmod{5}$$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	1	4×2
	3	1	5×4
	4	1	5×4
	5	1	5×4
	6	1	5×4
	7	1	5×4
	8	1	5×4
	9	1	5×4
	10	1	4×2
	11	1	5×4
	12	0	$21320_1 = \chi_{22}, \varphi_{22}$
	13	1	4×2
	14	0	$25830_1 = \chi_{25}, \varphi_{25}$
	15	0	$25830_2 = \chi_{26}, \varphi_{26}$
	16	1	5×4
	17	0	$37310_1 = \chi_{31}, \varphi_{31}$
	18	0	$37310_2 = \chi_{32}, \varphi_{32}$
	19	1	4×2
	20	0	$47970_1 = \chi_{34}, \varphi_{34}$
	21	0	$47970_2 = \chi_{35}, \varphi_{35}$
	22	0	$51660_1 = \chi_{36}, \varphi_{36}$
	23	1	4×2
	24	0	$74620_1 = \chi_{41}, \varphi_{39}$
	25	0	$74620_2 = \chi_{42}, \varphi_{40}$
	26	0	$127920_1 = \chi_{51}, \varphi_{50}$
	27	0	$223860_1 = \chi_{64}, \varphi_{54}$
	28	0	$223860_2 = \chi_{65}, \varphi_{55}$
	29	0	$223860_3 = \chi_{66}, \varphi_{56}$

	blocks	defect	matrix
	30	0	$298480_1 = \chi_{69}, \varphi_{60}$
	31	0	$298480_2 = \chi_{70}, \varphi_{61}$
	32	0	$335790_1 = \chi_{73}, \varphi_{62}$
	33	0	$335790_2 = \chi_{74}, \varphi_{63}$
	34	0	$367360_1 = \chi_{77}, \varphi_{65}$
	35	0	$367360_2 = \chi_{78}, \varphi_{66}$
	36	0	$367360_3 = \chi_{79}, \varphi_{67}$
	37	0	$367360_4 = \chi_{80}, \varphi_{68}$
	38	0	$367360_5 = \chi_{81}, \varphi_{69}$
	39	0	$367360_6 = \chi_{82}, \varphi_{70}$
	40	0	$367360_7 = \chi_{83}, \varphi_{71}$
	41	0	$367360_8 = \chi_{84}, \varphi_{72}$
	42	0	$465920_1 = \chi_{89}, \varphi_{75}$
	43	0	$465920_2 = \chi_{90}, \varphi_{76}$
	44	0	$465920_3 = \chi_{91}, \varphi_{77}$
	45	0	$465920_4 = \chi_{92}, \varphi_{78}$
	46	0	$465920_5 = \chi_{93}, \varphi_{79}$
	47	0	$465920_6 = \chi_{94}, \varphi_{80}$
	48	0	$465920_7 = \chi_{95}, \varphi_{81}$
	49	0	$465920_8 = \chi_{96}, \varphi_{82}$
	50	0	$465920_9 = \chi_{97}, \varphi_{83}$
	51	0	$465920_{10} = \chi_{98}, \varphi_{84}$
	52	0	$575640_1 = \chi_{107}, \varphi_{87}$
	53	0	$596960_1 = \chi_{108}, \varphi_{88}$
	54	0	$682240_1 = \chi_{109}, \varphi_{89}$
	55	0	$682240_2 = \chi_{110}, \varphi_{90}$
	56	0	$682240_3 = \chi_{111}, \varphi_{91}$
	57	0	$682240_4 = \chi_{112}, \varphi_{92}$

Block 1:	φ_1	φ_{11}	φ_{18}	φ_{37}
$1_1 = \chi_1$	1	.	.	.
$7749_2 = \chi_{12}$	1	1	.	.
$14391_1 = \chi_{17}$	.	.	1	.
$59696_2 = \chi_{38}$	.	1	.	1
$66339_1 = \chi_{40}$	.	.	1	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_{11} &= 7748_1 \\ \varphi_{18} &= 14391_1 \\ \varphi_{37} &= 51948_1 \end{aligned}$$

Block 2:	φ_2	φ_{51}
$246_1 = \chi_2$	1	.
$179088_1 = \chi_{55}$	.	1
$179088_2 = \chi_{56}$	.	1
$179334_1 = \chi_{59}$	1	1

$$\begin{aligned}\varphi_2 &= 246_1 \\ \varphi_{51} &= 179088_1\end{aligned}$$

Block 3:	φ_3	φ_{13}	φ_{41}	φ_{46}
$287_1 = \chi_3$	1	.	.	.
$11193_3 = \chi_{15}$	1	1	.	.
$100737_2 = \chi_{44}$	.	1	1	.
$119392_2 = \chi_{48}$	.	.	.	1
$209223_2 = \chi_{63}$	.	.	1	1

$$\begin{aligned}\varphi_3 &= 287_1 \\ \varphi_{13} &= 10906_1 \\ \varphi_{41} &= 89831_1 \\ \varphi_{46} &= 119392_2\end{aligned}$$

Block 4:	φ_4	φ_{14}	φ_{42}	φ_{45}
$287_2 = \chi_4$	1	.	.	.
$11193_4 = \chi_{16}$	1	1	.	.
$100737_1 = \chi_{43}$	.	1	1	.
$119392_1 = \chi_{47}$	.	.	.	1
$209223_1 = \chi_{62}$	.	.	1	1

$$\begin{aligned}\varphi_4 &= 287_2 \\ \varphi_{14} &= 10906_2 \\ \varphi_{42} &= 89831_2 \\ \varphi_{45} &= 119392_1\end{aligned}$$

Block 5:	φ_5	φ_{16}	φ_{43}	φ_{74}
$533_1 = \chi_5$	1	.	.	.
$11193_2 = \chi_{14}$	.	1	.	.
$100737_3 = \chi_{45}$	1	.	1	.
$388557_2 = \chi_{86}$	.	1	.	1
$477568_2 = \chi_{100}$	.	.	1	1

$$\begin{aligned}\varphi_5 &= 533_1 \\ \varphi_{16} &= 11193_2 \\ \varphi_{43} &= 100204_1 \\ \varphi_{74} &= 377364_2\end{aligned}$$

Block 6:	φ_6	φ_{15}	φ_{44}	φ_{73}
$533_2 = \chi_6$	1	.	.	.
$11193_1 = \chi_{13}$	.	1	.	.
$100737_4 = \chi_{46}$	1	.	1	.
$388557_1 = \chi_{85}$	.	1	.	1
$477568_1 = \chi_{99}$	.	.	1	1

$$\begin{aligned}\varphi_6 &= 533_2 \\ \varphi_{15} &= 11193_1 \\ \varphi_{44} &= 100204_2 \\ \varphi_{73} &= 377364_1\end{aligned}$$

Block 7:	φ_7	φ_{23}	φ_{53}	φ_{57}
$574_1 = \chi_7$	1	.	.	.
$22386_2 = \chi_{24}$	1	1	.	.
$201474_2 = \chi_{61}$	.	1	1	.
$238784_2 = \chi_{68}$	.	.	.	1
$418446_1 = \chi_{88}$	.	.	1	1

$$\begin{aligned}
\varphi_7 &= 574_1 \\
\varphi_{23} &= 21812_1 \\
\varphi_{53} &= 179662_1 \\
\varphi_{57} &= 238784_1
\end{aligned}$$

Block 8:	φ_8	φ_{12}	φ_{17}	φ_{86}
$819_1 = \chi_8$	1	.	.	.
$7749_1 = \chi_{11}$	.	1	.	.
$14391_2 = \chi_{18}$	1	.	1	.
$531441_1 = \chi_{103}$	.	1	.	1
$537264_2 = \chi_{105}$	.	.	1	1

$$\begin{aligned}
\varphi_8 &= 819_1 \\
\varphi_{12} &= 7749_1 \\
\varphi_{17} &= 13572_1 \\
\varphi_{86} &= 523692_1
\end{aligned}$$

Block 9:	φ_9	φ_{10}	φ_{27}	φ_{28}
$3731_1 = \chi_9$	1	.	.	.
$3731_2 = \chi_{10}$	.	1	.	.
$33579_3 = \chi_{29}$	1	.	1	.
$33579_4 = \chi_{30}$	.	1	.	1
$59696_3 = \chi_{39}$	.	.	1	1

$$\begin{aligned}
\varphi_9 &= 3731_1 \\
\varphi_{10} &= 3731_2 \\
\varphi_{27} &= 29848_1 \\
\varphi_{28} &= 29848_2
\end{aligned}$$

Block 10:	φ_{19}	φ_{47}
$14924_1 = \chi_{19}$	1	.
$119392_3 = \chi_{49}$	.	1
$119392_4 = \chi_{50}$	.	1
$134316_1 = \chi_{52}$	1	1

$$\begin{aligned}
\varphi_{19} &= 14924_1 \\
\varphi_{47} &= 119392_3
\end{aligned}$$

Block 11:	φ_{20}	φ_{21}	φ_{48}	φ_{49}
$14924_2 = \chi_{20}$	1	.	.	.
$14924_3 = \chi_{21}$	.	1	.	.
$134316_2 = \chi_{53}$	1	.	1	.
$134316_3 = \chi_{54}$	.	1	.	1
$238784_1 = \chi_{67}$	.	.	1	1

$$\begin{aligned}
\varphi_{20} &= 14924_2 \\
\varphi_{21} &= 14924_3 \\
\varphi_{48} &= 119392_4 \\
\varphi_{49} &= 119392_5
\end{aligned}$$

Block 13:	φ_{24}	φ_{52}		
$22386_1 = \chi_{23}$	1	.	$\varphi_{24} =$	22386_1
$179088_3 = \chi_{57}$	.	1	$\varphi_{52} =$	179088_2
$179088_4 = \chi_{58}$	.	1		
$201474_1 = \chi_{60}$	1	1		

Block 16:	φ_{29}	φ_{30}	φ_{58}	φ_{59}		
$33579_1 = \chi_{27}$	1	.	.	.	$\varphi_{29} =$	33579_1
$33579_2 = \chi_{28}$	.	1	.	.	$\varphi_{30} =$	33579_2
$302211_1 = \chi_{71}$	1	.	1	.	$\varphi_{58} =$	268632_1
$302211_2 = \chi_{72}$	.	1	.	1	$\varphi_{59} =$	268632_2
$537264_3 = \chi_{106}$	.	.	1	1		

Block 19:	φ_{33}	φ_{64}		
$44772_1 = \chi_{33}$	1	.	$\varphi_{33} =$	44772_1
$358176_1 = \chi_{75}$	.	1	$\varphi_{64} =$	358176_1
$358176_2 = \chi_{76}$	.	1		
$402948_1 = \chi_{87}$	1	1		

Block 23:	φ_{38}	φ_{85}		
$59696_1 = \chi_{37}$	1	.	$\varphi_{38} =$	59696_1
$477568_3 = \chi_{101}$	.	1	$\varphi_{85} =$	477568_1
$477568_4 = \chi_{102}$	.	1		
$537264_1 = \chi_{104}$	1	1		