

$O_8^+(2).2 \pmod{5}$

	blocks	defect	matrix
$G :$	1	2	20×14
	2	1	5×4
	3	1	5×4
	4	1	5×4
	5	0	$50_1 = \chi_{6,0}, \varphi_{6,0}$
	6	0	$50_2 = \chi_{6,1}, \varphi_{6,1}$
	7	0	$175_1 = \chi_{10,0}, \varphi_{10,0}$
	8	0	$175_2 = \chi_{10,1}, \varphi_{10,1}$
	9	0	$300_1 = \chi_{14,0}, \varphi_{14,0}$
	10	0	$300_2 = \chi_{14,1}, \varphi_{14,1}$
	11	0	$350_1 = \chi_{15,0}, \varphi_{15,0}$
	12	0	$350_2 = \chi_{15,1}, \varphi_{15,1}$
	13	0	$525_1 = \chi_{16,0}, \varphi_{16,0}$
	14	0	$525_2 = \chi_{16,1}, \varphi_{16,1}$
	15	0	$700_1 = \chi_{20,0}, \varphi_{20,0}$
	16	0	$700_2 = \chi_{20,1}, \varphi_{20,1}$
	17	0	$700_3 = \chi_{21,0}, \varphi_{21,0}$
	18	0	$700_4 = \chi_{21,1}, \varphi_{21,1}$
	19	0	$1400_1 = \chi_{22+}, \varphi_{22+}$
	20	0	$1050_1 = \chi_{28,0}, \varphi_{28,0}$
	21	0	$1050_2 = \chi_{28,1}, \varphi_{28,1}$
	22	0	$2100_1 = \chi_{29+}, \varphi_{29+}$
	23	0	$1400_2 = \chi_{34,0}, \varphi_{34,0}$
	24	0	$1400_3 = \chi_{34,1}, \varphi_{34,1}$
	25	0	$1575_1 = \chi_{35,0}, \varphi_{35,0}$
	26	0	$1575_2 = \chi_{35,1}, \varphi_{35,1}$
	27	0	$3150_1 = \chi_{36+}, \varphi_{36+}$

	blocks	defect	matrix
	28	0	$2100_2 = \chi_{38,0}, \varphi_{38,0}$
	29	0	$2100_3 = \chi_{38,1}, \varphi_{38,1}$
	30	0	$4200_1 = \chi_{39+}, \varphi_{39+}$
	31	0	$3200_1 = \chi_{50,0}, \varphi_{50,0}$
	32	0	$3200_2 = \chi_{50,1}, \varphi_{50,1}$
	33	0	$4200_2 = \chi_{52,0}, \varphi_{52,0}$
	34	0	$4200_3 = \chi_{52,1}, \varphi_{52,1}$
	35	0	$6075_1 = \chi_{53,0}, \varphi_{53,0}$
	36	0	$6075_2 = \chi_{53,1}, \varphi_{53,1}$
$2.G :$	37	2	20×14
	38	1	5×4
	39	1	5×4
	40	0	$400_1 = \chi_{60,0}, \varphi_{60,0}$
	41	0	$400_2 = \chi_{60,1}, \varphi_{60,1}$
	42	0	$1400_4 = \chi_{70,0}, \varphi_{70,0}$
	43	0	$1400_5 = \chi_{70,1}, \varphi_{70,1}$
	44	0	$1400_6 = \chi_{71,0}, \varphi_{71,0}$
	45	0	$1400_7 = \chi_{71,1}, \varphi_{71,1}$
	46	0	$2400_1 = \chi_{72,0}, \varphi_{72,0}$
	47	0	$2400_2 = \chi_{72,1}, \varphi_{72,1}$
	48	0	$2800_1 = \chi_{73,0}, \varphi_{73,0}$
	49	0	$2800_2 = \chi_{73,1}, \varphi_{73,1}$
	50	0	$5600_1 = \chi_{74+}, \varphi_{74+}$
	51	0	$4200_4 = \chi_{81,0}, \varphi_{81,0}$
	52	0	$4200_5 = \chi_{81,1}, \varphi_{81,1}$
	53	0	$5600_2 = \chi_{83,0}, \varphi_{83,0}$
54	0	$5600_3 = \chi_{83,1}, \varphi_{83,1}$	

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{7,0}$	$\varphi_{7,1}$	φ_{8+}	$\varphi_{17,0}$	$\varphi_{17,1}$	φ_{18+}	$\varphi_{24,0}$	$\varphi_{24,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$.	1	.	.	.	.	.	.	.	.	.	.
$28_1 = \chi_{2,0}$.	.	1	.	.	.	.	.	.	.	.	.
$28_2 = \chi_{2,1}$.	.	.	1	.	.	.	.	.	.	.	.
$84_1 = \chi_{7,0}$	1	.	.	.	1	.	.	.	.	.	.	.
$84_2 = \chi_{7,1}$.	1	.	.	.	1	.	.	.	.	.	.
$168_1 = \chi_{8+}$	1	1	.	.	.	.	1	.	.	.	.	.
$567_1 = \chi_{17,0}$.	.	1	.	.	.	.	1	.	.	.	.
$567_2 = \chi_{17,1}$.	.	.	1	.	.	.	.	1	.	.	.
$1134_1 = \chi_{18+}$.	.	1	1	.	.	.	.	.	1	.	.
$972_1 = \chi_{27,0}$	1	.	.	.	1	.	1	.	.	.	1	.
$972_2 = \chi_{27,1}$.	1	.	.	.	1	1	.	.	.	.	1
$1344_1 = \chi_{31,0}$	1	.	.	1	.	.	1	.
$1344_2 = \chi_{31,1}$	1	.	.	1	.	.	1
$2688_1 = \chi_{32+}$	1	.	.	1	1	1
$2268_1 = \chi_{44,0}$	1	.	.	.	.
$2268_2 = \chi_{44,1}$	1	.	.	.
$4536_1 = \chi_{45+}$	1	.	.
$4096_1 = \chi_{51,0}$.	.	1	.	.	.	.	1	.	1	1	.
$4096_2 = \chi_{51,1}$.	.	.	1	.	.	.	.	1	1	.	1

(Block 1:)	$\varphi_{35,0}$	$\varphi_{35,1}$		
$1_1 = \chi_{1,0}$.	.		
$1_2 = \chi_{1,1}$.	.		
$28_1 = \chi_{2,0}$.	.	$\varphi_{1,0} =$	1_1
$28_2 = \chi_{2,1}$.	.	$\varphi_{1,1} =$	1_2
$84_1 = \chi_{7,0}$.	.	$\varphi_{2,0} =$	28_1
$84_2 = \chi_{7,1}$.	.	$\varphi_{2,1} =$	28_2
$168_1 = \chi_{8+}$.	.	$\varphi_{7,0} =$	83_1
$567_1 = \chi_{17,0}$.	.	$\varphi_{7,1} =$	83_2
$567_2 = \chi_{17,1}$.	.	$\varphi_{8+} =$	166_1
$1134_1 = \chi_{18+}$.	.	$\varphi_{17,0} =$	539_1
$972_1 = \chi_{27,0}$.	.	$\varphi_{17,1} =$	539_2
$972_2 = \chi_{27,1}$.	.	$\varphi_{18+} =$	1078_1
$1344_1 = \chi_{31,0}$.	.	$\varphi_{24,0} =$	722_1
$1344_2 = \chi_{31,1}$.	.	$\varphi_{24,1} =$	722_2
$2688_1 = \chi_{32+}$.	.	$\varphi_{35,0} =$	1729_1
$2268_1 = \chi_{44,0}$	1	.	$\varphi_{35,1} =$	1729_2
$2268_2 = \chi_{44,1}$.	1		
$4536_1 = \chi_{45+}$	1	1		
$4096_1 = \chi_{51,0}$	1	.		
$4096_2 = \chi_{51,1}$.	1		

Block 2:	$\varphi_{3,0}$	$\varphi_{11,1}$	$\varphi_{25,0}$	$\varphi_{36,1}$		
$35_1 = \chi_{3,0}$	1	.	.	.	$\varphi_{3,0} =$	35_1
$210_2 = \chi_{11,1}$	.	1	.	.	$\varphi_{11,1} =$	210_2
$840_1 = \chi_{24,0}$	1	.	1	.	$\varphi_{25,0} =$	805_1
$2240_2 = \chi_{41,1}$	.	1	.	1	$\varphi_{36,1} =$	2030_2
$2835_2 = \chi_{47,1}$	.	.	1	1		

Block 3:	$\varphi_{3,1}$	$\varphi_{11,0}$	$\varphi_{25,1}$	$\varphi_{36,0}$		
$35_2 = \chi_{3,1}$	1	.	.	.	$\varphi_{3,1} =$	35_2
$210_1 = \chi_{11,0}$	.	1	.	.	$\varphi_{11,0} =$	210_1
$840_2 = \chi_{24,1}$	1	.	1	.	$\varphi_{25,1} =$	805_2
$2240_1 = \chi_{41,0}$	.	1	.	1	$\varphi_{36,0} =$	2030_1
$2835_1 = \chi_{47,0}$	.	.	1	1		

Block 4:	φ_{4+}	φ_{12+}	φ_{26+}	φ_{37+}
$70_1 = \chi_{4+}$	1	.	.	.
$420_1 = \chi_{12+}$	.	1	.	.
$1680_1 = \chi_{25+}$	1	.	1	.
$4480_1 = \chi_{42+}$	.	1	.	1
$5670_1 = \chi_{48+}$	.	.	1	1

$$\begin{aligned} \varphi_{4+} &= 70_1 \\ \varphi_{12+} &= 420_1 \\ \varphi_{26+} &= 1610_1 \\ \varphi_{37+} &= 4060_1 \end{aligned}$$

Block 37:	$\varphi_{45,0}$	$\varphi_{45,1}$	$\varphi_{46,0}$	$\varphi_{46,1}$	$\varphi_{47,0}$	$\varphi_{47,1}$	φ_{49+}	$\varphi_{51,0}$	$\varphi_{51,1}$	φ_{54+}	$\varphi_{57,0}$
$8_1 = \chi_{54,0}$	1	.	.	.	.	.	.	.	.	.	.
$8_2 = \chi_{54,1}$.	1	.	.	.	.	.	.	.	.	.
$56_1 = \chi_{55,0}$.	.	1	.	.	.	.	.	.	.	.
$56_2 = \chi_{55,1}$.	.	.	1	.	.	.	.	.	.	.
$112_1 = \chi_{56,0}$	1	.	.	.	1	.	.	.	.	.	.
$112_2 = \chi_{56,1}$.	1	.	.	.	1	.	.	.	.	.
$448_1 = \chi_{58+}$.	.	1	1	.	.	1	.	.	.	.
$448_2 = \chi_{61,0}$	1	.	.	1	.	.	.
$448_3 = \chi_{61,1}$	1	.	.	1	.	.
$1344_3 = \chi_{63+}$	1	1	.	.	.	.	.	.	.	1	.
$1008_1 = \chi_{66,0}$	1	.	.	.	.	.	1
$1008_2 = \chi_{66,1}$	1	.	.	.	.	.
$2016_1 = \chi_{67+}$	1	1	1	.
$1296_1 = \chi_{69,0}$.	.	1	.	.	.	1	.	.	.	1
$1296_2 = \chi_{69,1}$.	.	.	1	.	.	1	.	.	.	.
$7168_1 = \chi_{78+}$	1	.	.	1	.
$4096_3 = \chi_{80,0}$	1	.	1	.	.	.	1
$4096_4 = \chi_{80,1}$	1	1	.	.	.	.
$4536_2 = \chi_{82,0}$	1	.	.	.	1	.	.	1	.	1	.
$4536_3 = \chi_{82,1}$.	1	.	.	.	1	.	.	1	1	.

(Block 37:)	$\varphi_{57,1}$	$\varphi_{62,0}$	$\varphi_{62,1}$	
$8_1 = \chi_{54,0}$.	.	.	
$8_2 = \chi_{54,1}$.	.	.	
$56_1 = \chi_{55,0}$.	.	.	$\varphi_{45,0} = 8_1$
$56_2 = \chi_{55,1}$.	.	.	$\varphi_{45,1} = 8_2$
$112_1 = \chi_{56,0}$.	.	.	$\varphi_{46,0} = 56_1$
$112_2 = \chi_{56,1}$.	.	.	$\varphi_{46,1} = 56_2$
$448_1 = \chi_{58+}$.	.	.	$\varphi_{47,0} = 104_1$
$448_2 = \chi_{61,0}$.	.	.	$\varphi_{47,1} = 104_2$
$448_3 = \chi_{61,1}$.	.	.	$\varphi_{49+} = 336_1$
$1344_3 = \chi_{63+}$.	.	.	$\varphi_{51,0} = 344_1$
$1008_1 = \chi_{66,0}$.	.	.	$\varphi_{51,1} = 344_2$
$1008_2 = \chi_{66,1}$	1	.	.	$\varphi_{54+} = 1328_1$
$2016_1 = \chi_{67+}$.	.	.	$\varphi_{57,0} = 904_1$
$1296_1 = \chi_{69,0}$.	.	.	$\varphi_{57,1} = 904_2$
$1296_2 = \chi_{69,1}$	1	.	.	$\varphi_{62,0} = 2752_1$
$7168_1 = \chi_{78+}$.	1	1	$\varphi_{62,1} = 2752_2$
$4096_3 = \chi_{80,0}$.	1	.	
$4096_4 = \chi_{80,1}$	1	.	1	
$4536_2 = \chi_{82,0}$.	1	.	
$4536_3 = \chi_{82,1}$.	.	1	

Block 38:	$\varphi_{48,0}$	$\varphi_{53,1}$	$\varphi_{56,0}$	$\varphi_{61,1}$	
$160_1 = \chi_{57,0}$	1	.	.	.	$\varphi_{48,0} = 160_1$
$560_2 = \chi_{62,1}$	.	1	.	.	$\varphi_{53,1} = 560_2$
$840_3 = \chi_{65,0}$	1	.	1	.	$\varphi_{56,0} = 680_1$
$3240_2 = \chi_{76,1}$	.	1	.	1	$\varphi_{61,1} = 2680_2$
$3360_2 = \chi_{77,1}$	.	.	1	1	

Block 39:	$\varphi_{48,1}$	$\varphi_{53,0}$	$\varphi_{56,1}$	$\varphi_{61,0}$	
$160_2 = \chi_{57,1}$	1	.	.	.	$\varphi_{48,1} = 160_2$
$560_1 = \chi_{62,0}$	.	1	.	.	$\varphi_{53,0} = 560_1$
$840_4 = \chi_{65,1}$	1	.	1	.	$\varphi_{56,1} = 680_2$
$3240_1 = \chi_{76,0}$	.	1	.	1	$\varphi_{61,0} = 2680_1$
$3360_1 = \chi_{77,0}$	.	.	1	1	