

$$O_{10}^+(2).2 \pmod{5}$$

	blocks	defect	matrix
$G :$	1	2	20×14
	2	2	20×14
	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	0	$9300_1 = \chi_{10,0}, \varphi_{10,0}$
	11	0	$9300_2 = \chi_{10,1}, \varphi_{10,1}$
	12	1	5×4
	13	1	5×4
	14	1	5×4
	15	1	5×4
	16	1	5×4
	17	1	5×4
	18	1	5×4
	19	1	5×4
	20	1	5×4
	21	0	$148800_1 = \chi_{37,0}, \varphi_{33,0}$
	22	0	$148800_2 = \chi_{37,1}, \varphi_{33,1}$
	23	0	$158100_1 = \chi_{38,0}, \varphi_{34,0}$
	24	0	$158100_2 = \chi_{38,1}, \varphi_{34,1}$
	25	1	5×4
	26	0	$316200_1 = \chi_{49,0}, \varphi_{42,0}$
	27	0	$316200_2 = \chi_{49,1}, \varphi_{42,1}$
	28	0	$355725_1 = \chi_{55,0}, \varphi_{46,0}$
	29	0	$355725_2 = \chi_{55,1}, \varphi_{46,1}$
	30	0	$355725_3 = \chi_{56,0}, \varphi_{47,0}$
	31	0	$355725_4 = \chi_{56,1}, \varphi_{47,1}$
	32	0	$711450_1 = \chi_{57+}, \varphi_{48+}$
	33	0	$368900_1 = \chi_{59,0}, \varphi_{50,0}$
	34	0	$368900_2 = \chi_{59,1}, \varphi_{50,1}$
	35	0	$439425_1 = \chi_{60,0}, \varphi_{52,0}$
	36	0	$439425_2 = \chi_{60,1}, \varphi_{52,1}$
	37	0	$439425_3 = \chi_{61,0}, \varphi_{53,0}$
	38	0	$439425_4 = \chi_{61,1}, \varphi_{53,1}$
	39	0	$878850_1 = \chi_{62+}, \varphi_{54+}$
	40	0	$878850_2 = \chi_{64+}, \varphi_{56+}$

(Block 1:)	$\varphi_{38,1}$	$\varphi_{40,1}$	$\varphi_{41,0}$	$\varphi_{61,0}$	
$1_1 = \chi_{1,0}$	.	.	.	.	$\varphi_{1,0} = 1_1$
$186_2 = \chi_{3,1}$	.	.	.	.	$\varphi_{3,1} = 186_2$
$868_2 = \chi_{5,1}$	.	.	.	.	$\varphi_{5,1} = 868_2$
$2108_2 = \chi_{6,1}$	.	.	.	.	$\varphi_{6,1} = 1921_2$
$6324_1 = \chi_{8,0}$	.	.	.	.	$\varphi_{8,0} = 6323_1$
$11067_2 = \chi_{11,1}$	.	.	.	.	$\varphi_{11,1} = 10199_2$
$13888_1 = \chi_{13,0}$	.	.	.	.	$\varphi_{12,1} = 12649_2$
$14756_2 = \chi_{14,1}$	.	.	.	.	$\varphi_{14,0} = 13888_1$
$22848_2 = \chi_{18,1}$	.	.	.	.	$\varphi_{22,0} = 42347_1$
$50592_1 = \chi_{23,0}$	.	.	.	.	$\varphi_{23,0} = 52514_1$
$66402_1 = \chi_{26,0}$	.	.	.	.	$\varphi_{38,1} = 211327_2$
$101184_1 = \chi_{30,0}$	.	.	.	.	$\varphi_{40,1} = 255409_2$
$236096_2 = \chi_{46,1}$	1	.	.	.	$\varphi_{41,0} = 284053_1$
$265608_2 = \chi_{47,1}$	.	1	.	.	$\varphi_{61,0} = 655774_1$
$298809_1 = \chi_{48,0}$	.	.	1	.	
$539648_2 = \chi_{73,1}$	1	.	1	.	
$708288_1 = \chi_{78,0}$	.	.	.	1	
$761856_2 = \chi_{89,1}$	1	1	1	.	
$1048576_1 = \chi_{93,0}$	.	.	1	1	
$1195236_1 = \chi_{95,0}$	.	1	1	1	

[illegible]

(Block 2:)	$\varphi_{38,0}$	$\varphi_{40,0}$	$\varphi_{41,1}$	$\varphi_{61,1}$
$1_2 = \chi_{1,1}$	.	.	.	.
$186_1 = \chi_{3,0}$	.	.	.	.
$868_1 = \chi_{5,0}$	.	.	.	.
$2108_1 = \chi_{6,0}$	.	.	.	.
$6324_2 = \chi_{8,1}$	.	.	.	.
$11067_1 = \chi_{11,0}$	.	.	.	.
$13888_2 = \chi_{13,1}$	.	.	.	.
$14756_1 = \chi_{14,0}$	.	.	.	.
$22848_1 = \chi_{18,0}$	.	.	.	.
$50592_2 = \chi_{23,1}$	.	.	.	.
$66402_2 = \chi_{26,1}$	.	.	.	.
$101184_2 = \chi_{30,1}$	.	.	.	.
$236096_1 = \chi_{46,0}$	1	.	.	.
$265608_1 = \chi_{47,0}$	.	1	.	.
$298809_2 = \chi_{48,1}$	.	.	1	.
$539648_1 = \chi_{73,0}$	1	.	1	.
$708288_2 = \chi_{78,1}$	.	.	.	1
$761856_1 = \chi_{89,0}$	1	1	1	.
$1048576_2 = \chi_{93,1}$	.	.	1	1
$1195236_2 = \chi_{95,1}$	.	1	1	1

$$\begin{aligned}
\varphi_{1,1} &= 1_2 \\
\varphi_{3,0} &= 186_1 \\
\varphi_{5,0} &= 868_1 \\
\varphi_{6,0} &= 1921_1 \\
\varphi_{8,1} &= 6323_2 \\
\varphi_{11,0} &= 10199_1 \\
\varphi_{12,0} &= 12649_1 \\
\varphi_{14,1} &= 13888_2 \\
\varphi_{22,1} &= 42347_2 \\
\varphi_{23,1} &= 52514_2 \\
\varphi_{38,0} &= 211327_1 \\
\varphi_{40,0} &= 255409_1 \\
\varphi_{41,1} &= 284053_2 \\
\varphi_{61,1} &= 655774_2
\end{aligned}$$

Block 3:	$\varphi_{2,0}$	$\varphi_{18,1}$	$\varphi_{26,1}$	$\varphi_{31,1}$
$155_1 = \chi_{2,0}$	1	.	.	.
$31620_2 = \chi_{19,1}$	1	1	.	.
$73780_4 = \chi_{28,1}$	.	.	1	.
$166005_4 = \chi_{40,1}$	.	1	.	1
$208320_2 = \chi_{43,1}$	.	.	1	1

$$\begin{aligned}
\varphi_{2,0} &= 155_1 \\
\varphi_{18,1} &= 31465_2 \\
\varphi_{26,1} &= 73780_2 \\
\varphi_{31,1} &= 134540_2
\end{aligned}$$

Block 4:	$\varphi_{2,1}$	$\varphi_{18,0}$	$\varphi_{26,0}$	$\varphi_{31,0}$
$155_2 = \chi_{2,1}$	1	.	.	.
$31620_1 = \chi_{19,0}$	1	1	.	.
$73780_3 = \chi_{28,0}$	.	.	1	.
$166005_3 = \chi_{40,0}$	.	1	.	1
$208320_1 = \chi_{43,0}$	.	.	1	1

$$\begin{aligned}
\varphi_{2,1} &= 155_2 \\
\varphi_{18,0} &= 31465_1 \\
\varphi_{26,0} &= 73780_1 \\
\varphi_{31,0} &= 134540_1
\end{aligned}$$

Block 5:	$\varphi_{4,0}$	$\varphi_{21,0}$	$\varphi_{30,1}$	$\varphi_{39,1}$
$340_1 = \chi_{4,0}$	1	.	.	.
$42160_1 = \chi_{22,0}$	1	1	.	.
$168640_2 = \chi_{42,1}$	.	1	1	.
$221340_5 = \chi_{45,1}$	.	.	.	1
$348160_2 = \chi_{54,1}$	.	.	1	1

$$\begin{aligned}
\varphi_{4,0} &= 340_1 \\
\varphi_{21,0} &= 41820_1 \\
\varphi_{30,1} &= 126820_2 \\
\varphi_{39,1} &= 221340_2
\end{aligned}$$

Block 6:	$\varphi_{4,1}$	$\varphi_{21,1}$	$\varphi_{30,0}$	$\varphi_{39,0}$
$340_2 = \chi_{4,1}$	1	.	.	.
$42160_2 = \chi_{22,1}$	1	1	.	.
$168640_1 = \chi_{42,0}$	.	1	1	.
$221340_4 = \chi_{45,0}$	.	.	.	1
$348160_1 = \chi_{54,0}$	.	.	1	1

$$\begin{aligned}
\varphi_{4,1} &= 340_2 \\
\varphi_{21,1} &= 41820_2 \\
\varphi_{30,0} &= 126820_1 \\
\varphi_{39,0} &= 221340_1
\end{aligned}$$

Block 7:	$\varphi_{7,0}$	$\varphi_{7,1}$	$\varphi_{43,0}$	$\varphi_{43,1}$
$5270_1 = \chi_{7,0}$	1	.	.	.
$5270_2 = \chi_{7,1}$	.	1	.	.
$664020_1 = \chi_{51+}$	.	.	1	1
$337280_1 = \chi_{53,0}$	1	.	1	.
$337280_2 = \chi_{53,1}$	.	1	.	1

$$\begin{aligned}
\varphi_{7,0} &= 5270_1 \\
\varphi_{7,1} &= 5270_2 \\
\varphi_{43,0} &= 332010_1 \\
\varphi_{43,1} &= 332010_2
\end{aligned}$$

Block 8:	$\varphi_{9,0}$	$\varphi_{27,0}$	$\varphi_{36,1}$	$\varphi_{45,1}$
$7905_1 = \chi_{9,0}$	1	.	.	.
$110670_2 = \chi_{31,0}$	1	1	.	.
$166005_6 = \chi_{41,1}$	.	.	1	.
$442680_4 = \chi_{67,1}$	.	1	.	1
$505920_2 = \chi_{72,1}$	.	.	1	1

$$\begin{aligned}
\varphi_{9,0} &= 7905_1 \\
\varphi_{27,0} &= 102765_1 \\
\varphi_{36,1} &= 166005_4 \\
\varphi_{45,1} &= 339915_2
\end{aligned}$$

Block 9:	$\varphi_{9,1}$	$\varphi_{27,1}$	$\varphi_{36,0}$	$\varphi_{45,0}$
$7905_2 = \chi_{9,1}$	1	.	.	.
$110670_3 = \chi_{31,1}$	1	1	.	.
$166005_5 = \chi_{41,0}$	.	.	1	.
$442680_3 = \chi_{67,0}$	.	1	.	1
$505920_1 = \chi_{72,0}$	.	.	1	1

$$\begin{aligned}
\varphi_{9,1} &= 7905_2 \\
\varphi_{27,1} &= 102765_2 \\
\varphi_{36,0} &= 166005_3 \\
\varphi_{45,0} &= 339915_1
\end{aligned}$$

Block 12:	$\varphi_{13,0}$	$\varphi_{19,1}$	$\varphi_{25,0}$	$\varphi_{60,1}$	
$13020_1 = \chi_{12,0}$	1	.	.	.	$\varphi_{13,0} = 13020_1$
$31620_4 = \chi_{20,1}$	.	1	.	.	$\varphi_{19,1} = 31620_2$
$73780_1 = \chi_{27,0}$	1	.	1	.	$\varphi_{25,0} = 60760_1$
$634880_2 = \chi_{75,1}$	.	1	.	1	$\varphi_{60,1} = 603260_2$
$664020_5 = \chi_{77,1}$	.	.	1	1	

Block 13:	$\varphi_{13,1}$	$\varphi_{19,0}$	$\varphi_{25,1}$	$\varphi_{60,0}$	
$13020_2 = \chi_{12,1}$	1	.	.	.	$\varphi_{13,1} = 13020_2$
$31620_3 = \chi_{20,0}$	.	1	.	.	$\varphi_{19,0} = 31620_1$
$73780_2 = \chi_{27,1}$	1	.	1	.	$\varphi_{25,1} = 60760_2$
$634880_1 = \chi_{75,0}$	.	1	.	1	$\varphi_{60,0} = 603260_1$
$664020_4 = \chi_{77,0}$	.	.	1	1	

Block 14:	$\varphi_{15,0}$	$\varphi_{37,0}$	$\varphi_{44,1}$	$\varphi_{62,1}$	
$15810_1 = \chi_{15,0}$	1	.	.	.	$\varphi_{15,0} = 15810_1$
$221340_2 = \chi_{44,0}$	1	1	.	.	$\varphi_{37,0} = 205530_1$
$332010_2 = \chi_{50,1}$	.	.	1	.	$\varphi_{44,1} = 332010_4$
$885360_3 = \chi_{91,1}$	.	1	.	1	$\varphi_{62,1} = 679830_2$
$1011840_2 = \chi_{92,1}$	.	.	1	1	

Block 15:	$\varphi_{15,1}$	$\varphi_{37,1}$	$\varphi_{44,0}$	$\varphi_{62,0}$	
$15810_2 = \chi_{15,1}$	1	.	.	.	$\varphi_{15,1} = 15810_2$
$221340_3 = \chi_{44,1}$	1	1	.	.	$\varphi_{37,1} = 205530_2$
$332010_1 = \chi_{50,0}$	.	.	1	.	$\varphi_{44,0} = 332010_3$
$885360_2 = \chi_{91,0}$	.	1	.	1	$\varphi_{62,0} = 679830_1$
$1011840_1 = \chi_{92,0}$	.	.	1	1	

Block 16:	$\varphi_{17,0}$	$\varphi_{17,1}$	$\varphi_{24,0}$	$\varphi_{24,1}$	
$18445_1 = \chi_{16,0}$	1	.	.	.	$\varphi_{17,0} = 18445_3$
$18445_2 = \chi_{16,1}$	.	1	.	.	$\varphi_{17,1} = 18445_4$
$110670_1 = \chi_{24+}$	.	.	1	1	$\varphi_{24,0} = 55335_1$
$73780_5 = \chi_{29,0}$	1	.	1	.	$\varphi_{24,1} = 55335_2$
$73780_6 = \chi_{29,1}$	.	1	.	1	

Block 17:	$\varphi_{16,0}$	$\varphi_{29,0}$	$\varphi_{51,0}$	$\varphi_{74,0}$
$18445_3 = \chi_{17,0}$	1	.	.	.
$110670_4 = \chi_{32,0}$	.	1	.	.
$442680_1 = \chi_{66,0}$	1	.	1	.
$1180480_1 = \chi_{94,0}$	.	1	.	1
$1494045_1 = \chi_{97,0}$	.	.	1	1

$$\begin{aligned}
\varphi_{16,0} &= 18445_1 \\
\varphi_{29,0} &= 110670_3 \\
\varphi_{51,0} &= 424235_1 \\
\varphi_{74,0} &= 1069810_1
\end{aligned}$$

Block 18:	$\varphi_{16,1}$	$\varphi_{29,1}$	$\varphi_{51,1}$	$\varphi_{74,1}$
$18445_4 = \chi_{17,1}$	1	.	.	.
$110670_5 = \chi_{32,1}$	.	1	.	.
$442680_2 = \chi_{66,1}$	1	.	1	.
$1180480_2 = \chi_{94,1}$	.	1	.	1
$1494045_2 = \chi_{97,1}$	.	.	1	1

$$\begin{aligned}
\varphi_{16,1} &= 18445_2 \\
\varphi_{29,1} &= 110670_4 \\
\varphi_{51,1} &= 424235_2 \\
\varphi_{74,1} &= 1069810_2
\end{aligned}$$

Block 19:	$\varphi_{20,0}$	$\varphi_{20,1}$	$\varphi_{28,0}$	$\varphi_{28,1}$
$36890_1 = \chi_{21,0}$	1	.	.	.
$36890_2 = \chi_{21,1}$	.	1	.	.
$221340_1 = \chi_{33+}$	.	.	1	1
$147560_3 = \chi_{36,0}$	1	.	1	.
$147560_4 = \chi_{36,1}$	.	1	.	1

$$\begin{aligned}
\varphi_{20,0} &= 36890_1 \\
\varphi_{20,1} &= 36890_2 \\
\varphi_{28,0} &= 110670_1 \\
\varphi_{28,1} &= 110670_2
\end{aligned}$$

Block 20:	$\varphi_{32,0}$	$\varphi_{32,1}$	$\varphi_{58,0}$	$\varphi_{58,1}$
$147560_1 = \chi_{35,0}$	1	.	.	.
$147560_2 = \chi_{35,1}$	.	1	.	.
$885360_1 = \chi_{68+}$	.	.	1	1
$590240_1 = \chi_{74,0}$	1	.	1	.
$590240_2 = \chi_{74,1}$	.	1	.	1

$$\begin{aligned}
\varphi_{32,0} &= 147560_1 \\
\varphi_{32,1} &= 147560_2 \\
\varphi_{58,0} &= 442680_1 \\
\varphi_{58,1} &= 442680_2
\end{aligned}$$

Block 25:	$\varphi_{35,0}$	$\varphi_{35,1}$	$\varphi_{59,0}$	$\varphi_{59,1}$
$166005_1 = \chi_{39,0}$	1	.	.	.
$166005_2 = \chi_{39,1}$	.	1	.	.
$996030_1 = \chi_{70+}$	.	.	1	1
$664020_2 = \chi_{76,0}$	1	.	1	.
$664020_3 = \chi_{76,1}$	.	1	.	1

$$\begin{aligned}
\varphi_{35,0} &= 166005_1 \\
\varphi_{35,1} &= 166005_2 \\
\varphi_{59,0} &= 498015_1 \\
\varphi_{59,1} &= 498015_2
\end{aligned}$$