

$A_{13}.2 \pmod{3}$

	blocks	defect	matrix
$G :$	1	5	51×20
	2	4	22×10
	3	4	22×10
	4	1	3×2
	5	1	3×2
$2.G :$	6	5	21×5
	7	2	6×4

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{6,0}$	$\varphi_{6,1}$	$\varphi_{8,0}$	$\varphi_{8,1}$	φ_{9+}	φ_{12+}	$\varphi_{15,0}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.	.	.	.	.	.	.	.
$65_1 = \chi_{3,0}$	1	.	1	.	.	.	.	.	.	.	.	.	.
$65_2 = \chi_{3,1}$	.	1	.	1	.	.	.	.	.	.	.	.	.
$208_1 = \chi_{5,0}$	1	.	1	.	1	.	.	.	.	.	.	.	.
$208_2 = \chi_{5,1}$	.	1	.	1	.	1	.	.	.	.	.	.	.
$220_1 = \chi_{6,0}$	.	.	.	.	.	.	1	.	.	.	.	.	.
$220_2 = \chi_{6,1}$	.	.	.	.	.	.	.	1	.	.	.	.	.
$429_1 = \chi_{7,0}$	2	.	1	.	1	.	1	.	.	.	.	.	.
$429_2 = \chi_{7,1}$	.	2	.	1	.	1	.	1	.	.	.	.	.
$429_5 = \chi_{9,0}$	.	1	.	.	.	.	.	.	1	.	.	.	.
$429_6 = \chi_{9,1}$	1	.	.	.	.	.	.	.	.	1	.	.	.
$924_1 = \chi_{10+}$	.	.	.	.	.	.	.	.	.	.	1	.	.
$572_1 = \chi_{13,0}$	1	.	.	.	1	.	.	.	1	.	.	.	.
$572_2 = \chi_{13,1}$	.	1	.	.	.	1	.	.	.	1	.	.	.
$1430_1 = \chi_{18,0}$	2	.	.	.	1	.	1	.	.	.	.	.	1
$1430_2 = \chi_{18,1}$	.	2	.	.	.	1	.	1	.	.	.	.	.
$2860_1 = \chi_{21,0}$	1	1	.	.	1	.	.	.	1	.	.	.	.
$2860_2 = \chi_{21,1}$	1	1	.	.	.	1	.	.	.	1	.	.	.
$3003_1 = \chi_{22,0}$	.	.	.	.	.	.	.	.	.	.	.	.	1
$3003_2 = \chi_{22,1}$	.	.	.	.	.	.	.	.	.	.	.	.	.
$3432_3 = \chi_{24,0}$	.	1	.	.	.	.	.	1	.	.	1	.	.
$3432_4 = \chi_{24,1}$	1	.	.	.	.	.	1	.	.	.	1	.	.
$3432_5 = \chi_{25,0}$	.	1	.	.	.	.	.	.	1	.	.	.	.
$3432_6 = \chi_{25,1}$	1	.	.	.	.	.	.	.	.	1	.	.	1
$3575_1 = \chi_{26,0}$	1	.	.	.	1	.	1	.	.	.	1	.	.
$3575_2 = \chi_{26,1}$	.	1	.	.	.	1	.	1	.	.	1	.	.
$3640_1 = \chi_{27,0}$	2	.	1	.	1	.	.	.	1	.	.	.	1
$3640_2 = \chi_{27,1}$	.	2	.	1	.	1	.	.	.	1	.	.	.
$4004_1 = \chi_{28,0}$	2	1	1	.	1	.	.	.	1	.	.	1	.
$4004_2 = \chi_{28,1}$	1	2	.	1	.	1	.	.	.	1	.	1	.
$4290_1 = \chi_{30,0}$	.	.	.	.	.	.	.	.	.	.	1	1	.
$4290_2 = \chi_{30,1}$	.	.	.	.	.	.	.	.	.	.	1	1	.
$8580_1 = \chi_{31+}$	2	2	.	.	1	1	.	.	1	1	.	1	1
$5005_1 = \chi_{33,0}$	1	2	.	1	.	1	.	.	.	.	.	1	.
$5005_2 = \chi_{33,1}$	2	1	1	.	1	.	.	.	.	.	.	1	.
$5720_1 = \chi_{35,0}$	1	1	.	1	.	.	.	.	.	.	.	.	.
$5720_2 = \chi_{35,1}$	1	1	1	.	.	.	.	.	.	.	.	.	.
$6864_1 = \chi_{38,0}$	2	.	.	.	1	.	.	.	.	.	.	.	1
$6864_2 = \chi_{38,1}$	.	2	.	.	.	1	.	.	.	.	.	.	.

(Block 1:)	$\varphi_{15,1}$	$\varphi_{18,0}$	$\varphi_{18,1}$	$\varphi_{19,0}$	$\varphi_{19,1}$	$\varphi_{20,0}$	$\varphi_{20,1}$
$1_1 = \chi_{1,0}$	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	.	.	.	.	.	.
$65_1 = \chi_{3,0}$	.	.	.	.	.	.	.
$65_2 = \chi_{3,1}$	.	.	.	.	.	.	.
$208_1 = \chi_{5,0}$	.	.	.	.	.	.	.
$208_2 = \chi_{5,1}$	.	.	.	.	.	.	.
$220_1 = \chi_{6,0}$	.	.	.	.	.	.	.
$220_2 = \chi_{6,1}$	.	.	.	.	.	.	.
$429_1 = \chi_{7,0}$	.	.	.	.	.	.	.
$429_2 = \chi_{7,1}$	.	.	.	.	.	.	.
$429_5 = \chi_{9,0}$	.	.	.	.	.	.	.
$429_6 = \chi_{9,1}$	.	.	.	.	.	.	.
$924_1 = \chi_{10+}$	.	.	.	.	.	.	.
$572_1 = \chi_{13,0}$	.	.	.	.	.	.	.
$572_2 = \chi_{13,1}$	.	.	.	.	.	.	.
$1430_1 = \chi_{18,0}$	.	.	.	.	.	.	.
$1430_2 = \chi_{18,1}$	1	.	.	.	.	.	.
$2860_1 = \chi_{21,0}$	.	.	.	1	.	.	.
$2860_2 = \chi_{21,1}$	.	.	.	.	1	.	.
$3003_1 = \chi_{22,0}$	.	1	.	.	.	.	.
$3003_2 = \chi_{22,1}$	1	.	1	.	.	.	.
$3432_3 = \chi_{24,0}$	.	.	.	1	.	.	.
$3432_4 = \chi_{24,1}$	.	.	.	.	1	.	.
$3432_5 = \chi_{25,0}$	1	1	.	.	.	.	.
$3432_6 = \chi_{25,1}$	.	.	1	.	.	.	.
$3575_1 = \chi_{26,0}$	.	.	.	1	.	.	.
$3575_2 = \chi_{26,1}$	.	.	.	.	1	.	.
$3640_1 = \chi_{27,0}$	.	1	.	.	.	.	.
$3640_2 = \chi_{27,1}$	1	.	1	.	.	.	.
$4004_1 = \chi_{28,0}$	.	1	.	.	.	.	.
$4004_2 = \chi_{28,1}$	.	.	1	.	.	.	.
$4290_1 = \chi_{30,0}$	.	1	.	.	.	.	.
$4290_2 = \chi_{30,1}$	.	.	1	.	.	.	.
$8580_1 = \chi_{31+}$	1	1	1	.	.	.	.
$5005_1 = \chi_{33,0}$	.	.	.	.	.	1	.
$5005_2 = \chi_{33,1}$	.	.	.	.	.	.	1
$5720_1 = \chi_{35,0}$	.	.	.	1	.	1	.
$5720_2 = \chi_{35,1}$	.	.	.	.	1	.	1
$6864_1 = \chi_{38,0}$	.	.	.	1	.	1	.
$6864_2 = \chi_{38,1}$	1	.	.	.	1	.	1

(Block 1:)	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{6,0}$	$\varphi_{6,1}$	$\varphi_{8,0}$	$\varphi_{8,1}$	φ_{9+}	φ_{12+}	$\varphi_{15,0}$
$7800_1 = \chi_{40,0}$	2	.	.	.	.	.	.	.	.	.	.	1	1
$7800_2 = \chi_{40,1}$	.	2	.	.	.	.	.	.	.	.	.	1	.
$16016_1 = \chi_{41+}$	3	3	1	1	1	1	.	.	.	.	.	2	1
$8580_2 = \chi_{43,0}$	2	2	.	1	1	1	.	1	.	.	1	1	.
$8580_3 = \chi_{43,1}$	2	2	1	.	1	1	1	.	.	.	1	1	.
$11440_1 = \chi_{47,0}$	3	1	.	1	1	.	1	.	.	.	1	1	1
$11440_2 = \chi_{47,1}$	1	3	1	.	.	1	.	1	.	.	1	1	.
$12012_1 = \chi_{49,0}$	4	1	1	.	2	.	1	.	1	.	1	1	1
$12012_2 = \chi_{49,1}$	1	4	.	1	.	2	.	1	.	1	1	1	.
$15015_1 = \chi_{52,0}$	2	3	.	1	1	1	.	1	1	.	1	1	1
$15015_2 = \chi_{52,1}$	3	2	1	.	1	1	1	.	.	1	1	1	1

(Block 1:)	$\varphi_{15,1}$	$\varphi_{18,0}$	$\varphi_{18,1}$	$\varphi_{19,0}$	$\varphi_{19,1}$	$\varphi_{20,0}$	$\varphi_{20,1}$
$7800_1 = \chi_{40,0}$	.	1	.	.	.	1	.
$7800_2 = \chi_{40,1}$	1	.	1	.	.	.	1
$16016_1 = \chi_{41+}$	1	1	1	.	.	1	1
$8580_2 = \chi_{43,0}$	.	.	.	1	.	1	.
$8580_3 = \chi_{43,1}$	.	.	.	.	1	.	1
$11440_1 = \chi_{47,0}$	.	.	1	1	.	1	.
$11440_2 = \chi_{47,1}$	1	1	.	.	1	.	1
$12012_1 = \chi_{49,0}$	.	1	.	1	.	1	.
$12012_2 = \chi_{49,1}$	1	.	1	.	1	.	1
$15015_1 = \chi_{52,0}$	1	1	1	1	.	1	.
$15015_2 = \chi_{52,1}$	1	1	1	.	1	.	1

$\varphi_{1,0} = 1_1$
 $\varphi_{1,1} = 1_2$
 $\varphi_{3,0} = 64_1$
 $\varphi_{3,1} = 64_2$
 $\varphi_{5,0} = 143_1$
 $\varphi_{5,1} = 143_2$
 $\varphi_{6,0} = 220_1$
 $\varphi_{6,1} = 220_2$
 $\varphi_{8,0} = 428_1$
 $\varphi_{8,1} = 428_2$
 $\varphi_{9+} = 924_1$
 $\varphi_{12+} = 1428_1$
 $\varphi_{15,0} = 1065_1$
 $\varphi_{15,1} = 1065_2$
 $\varphi_{18,0} = 1938_1$
 $\varphi_{18,1} = 1938_2$
 $\varphi_{19,0} = 2287_1$
 $\varphi_{19,1} = 2287_2$
 $\varphi_{20,0} = 3367_1$
 $\varphi_{20,1} = 3367_2$

Block 2:	$\varphi_{2,0}$	$\varphi_{4,1}$	$\varphi_{7,0}$	$\varphi_{11,0}$	$\varphi_{14,1}$	$\varphi_{16,1}$	$\varphi_{17,1}$	$\varphi_{22,0}$	$\varphi_{24,0}$	$\varphi_{25,0}$
$12_1 = \chi_{2,0}$	1	.	.	.	.	.	.	.	.	.
$66_2 = \chi_{4,1}$	.	1	.	.	.	.	.	.	.	.
$429_3 = \chi_{8,0}$	1	.	1	.	.	.	.	.	.	.
$495_1 = \chi_{12,0}$	.	.	.	1	.	.	.	.	.	.
$792_2 = \chi_{14,1}$	.	.	.	.	1	.	.	.	.	.
$936_1 = \chi_{15,0}$	2	.	1	1	.	.	.	.	.	.
$1287_2 = \chi_{16,1}$	1	.	.	.	.	1	.	.	.	.
$1365_2 = \chi_{17,1}$	.	1	.	.	.	.	1	.	.	.
$2574_2 = \chi_{19,1}$	.	.	.	.	.	1	1	.	.	.
$2574_4 = \chi_{20,1}$	1	.	.	1	1	1	.	.	.	.
$3432_2 = \chi_{23,1}$	.	1	.	.	1	1	1	.	.	.
$5148_1 = \chi_{34,0}$	.	1	.	.	.	.	.	1	.	.
$6006_1 = \chi_{36,0}$	1	.	1	1	.	.	.	1	.	.
$6435_1 = \chi_{37,0}$	.	1	.	1	1	.	.	1	.	.
$9009_1 = \chi_{44,0}$	2	.	1	.	.	.	.	.	1	.
$9360_2 = \chi_{45,1}$	.	.	.	.	1	.	.	.	1	.
$10296_1 = \chi_{46,0}$	.	.	.	.	.	.	.	.	.	1
$12012_4 = \chi_{50,1}$	1	1	.	.	1	1	1	.	1	.
$12870_2 = \chi_{51,1}$	2	.	1	1	1	1	1	.	1	.
$17160_1 = \chi_{53,0}$	1	1	1	1	1	.	.	1	.	1
$20592_1 = \chi_{54,0}$	2	.	1	1	1	.	.	.	1	1
$21450_1 = \chi_{55,0}$	1	1	1	.	1	.	1	.	1	1

$$\begin{array}{ll}
\varphi_{2,0} & = 12_1 \\
\varphi_{4,1} & = 66_2 \\
\varphi_{7,0} & = 417_1 \\
\varphi_{11,0} & = 495_1 \\
\varphi_{14,1} & = 792_2
\end{array}
\qquad
\begin{array}{ll}
\varphi_{16,1} & = 1275_2 \\
\varphi_{17,1} & = 1299_2 \\
\varphi_{22,0} & = 5082_1 \\
\varphi_{24,0} & = 8568_1 \\
\varphi_{25,0} & = 10296_1
\end{array}$$

Block 3:	$\varphi_{2,1}$	$\varphi_{4,0}$	$\varphi_{7,1}$	$\varphi_{11,1}$	$\varphi_{14,0}$	$\varphi_{16,0}$	$\varphi_{17,0}$	$\varphi_{22,1}$	$\varphi_{24,1}$	$\varphi_{25,1}$
$12_2 = \chi_{2,1}$	1	.	.	.	.	.	.	.	.	.
$66_1 = \chi_{4,0}$	.	1	.	.	.	.	.	.	.	.
$429_4 = \chi_{8,1}$	1	.	1	.	.	.	.	.	.	.
$495_2 = \chi_{12,1}$	.	.	.	1	.	.	.	.	.	.
$792_1 = \chi_{14,0}$	.	.	.	.	1	.	.	.	.	.
$936_2 = \chi_{15,1}$	2	.	1	1	.	.	.	.	.	.
$1287_1 = \chi_{16,0}$	1	.	.	.	.	1	.	.	.	.
$1365_1 = \chi_{17,0}$	.	1	.	.	.	.	1	.	.	.
$2574_1 = \chi_{19,0}$	.	.	.	.	.	1	1	.	.	.
$2574_3 = \chi_{20,0}$	1	.	.	1	1	1	.	.	.	.
$3432_1 = \chi_{23,0}$	.	1	.	.	1	1	1	.	.	.
$5148_2 = \chi_{34,1}$	.	1	.	.	.	.	.	1	.	.
$6006_2 = \chi_{36,1}$	1	.	1	1	.	.	.	1	.	.
$6435_2 = \chi_{37,1}$	.	1	.	1	1	.	.	1	.	.
$9009_2 = \chi_{44,1}$	2	.	1	.	.	.	.	.	1	.
$9360_1 = \chi_{45,0}$	.	.	.	.	1	.	.	.	1	.
$10296_2 = \chi_{46,1}$	.	.	.	.	.	.	.	.	.	1
$12012_3 = \chi_{50,0}$	1	1	.	.	1	1	1	.	1	.
$12870_1 = \chi_{51,0}$	2	.	1	1	1	1	1	.	1	.
$17160_2 = \chi_{53,1}$	1	1	1	1	1	.	.	1	.	1
$20592_2 = \chi_{54,1}$	2	.	1	1	1	.	.	.	1	1
$21450_2 = \chi_{55,1}$	1	1	1	.	1	.	1	.	1	1

$$\begin{array}{ll}
\varphi_{2,1} = 12_2 & \varphi_{16,0} = 1275_1 \\
\varphi_{4,0} = 66_1 & \varphi_{17,0} = 1299_1 \\
\varphi_{7,1} = 417_2 & \varphi_{22,1} = 5082_2 \\
\varphi_{11,1} = 495_2 & \varphi_{24,1} = 8568_2 \\
\varphi_{14,0} = 792_1 & \varphi_{25,1} = 10296_2
\end{array}$$

Block 4:	$\varphi_{21,0}$	$\varphi_{23,1}$
$4212_1 = \chi_{29,0}$	1	.
$7371_2 = \chi_{39,1}$	.	1
$11583_1 = \chi_{48,0}$	1	1

$$\begin{array}{ll}
\varphi_{21,0} = 4212_1 \\
\varphi_{23,1} = 7371_2
\end{array}$$

Block 5:	$\varphi_{21,1}$	$\varphi_{23,0}$
$4212_2 = \chi_{29,1}$	1	.
$7371_1 = \chi_{39,0}$	.	1
$11583_2 = \chi_{48,1}$	1	1

$$\begin{array}{ll}
\varphi_{21,1} = 4212_2 \\
\varphi_{23,0} = 7371_1
\end{array}$$

Block 6:	φ_{26+}	φ_{28+}	φ_{31+}	φ_{33+}	φ_{35+}	
$64_1 = \chi_{56+}$	1	.	.	.	.	
$352_1 = \chi_{58,0}$	1	1	.	.	.	
$352_2 = \chi_{58,1}$	1	1	.	.	.	
$4992_1 = \chi_{60+}$	2	1	.	1	.	
$4224_1 = \chi_{62,0}$	1	.	1	.	.	
$4224_2 = \chi_{62,1}$	1	.	1	.	.	
$4576_1 = \chi_{63,0}$	.	.	.	1	.	
$4576_2 = \chi_{63,1}$	.	.	.	1	.	$\varphi_{26+} = 64_3$
$4928_1 = \chi_{64,0}$	1	1	.	1	.	$\varphi_{28+} = 288_1$
$4928_2 = \chi_{64,1}$	1	1	.	1	.	$\varphi_{31+} = 4160_1$
$8800_1 = \chi_{65,0}$	1	.	1	1	.	$\varphi_{33+} = 4576_1$
$8800_2 = \chi_{65,1}$	1	.	1	1	.	$\varphi_{35+} = 18432_1$
$9152_1 = \chi_{66,0}$	2	1	1	1	.	
$9152_2 = \chi_{66,1}$	2	1	1	1	.	
$18304_1 = \chi_{67+}$	4	2	2	2	.	
$18304_2 = \chi_{69+}$	4	2	2	2	.	
$13728_1 = \chi_{76,0}$	2	1	1	2	.	
$13728_2 = \chi_{76,1}$	2	1	1	2	.	
$27456_1 = \chi_{77+}$	2	2	2	.	1	
$32032_1 = \chi_{79+}$	2	2	2	1	1	
$41600_1 = \chi_{81+}$	6	4	3	2	1	

Block 7:	$\varphi_{30,0}$	$\varphi_{30,1}$	$\varphi_{37,0}$	$\varphi_{37,1}$	
$1728_1 = \chi_{59,0}$	1	.	.	.	$\varphi_{30,0} = 1728_1$
$1728_2 = \chi_{59,1}$	.	1	.	.	$\varphi_{30,1} = 1728_2$
$9504_1 = \chi_{71,0}$	.	.	1	.	$\varphi_{37,0} = 9504_1$
$9504_2 = \chi_{71,1}$	.	.	.	1	$\varphi_{37,1} = 9504_2$
$22464_1 = \chi_{72+}$	1	1	1	1	
$22464_2 = \chi_{74+}$	1	1	1	1	