

$$U_6(\mathbf{2}) \pmod{3}$$

	blocks	defect	matrix
3.G :	1	7	114×15
	2	2	9×2
	3	1	3×1
	$4 = \overline{3}$	1	3×1
	5	1	3×1
6.G :	6	7	78×9
	7	2	9×2

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}	φ_{15}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
$22_1 = \chi_2$	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.
$231_1 = \chi_3$	.	1	1	.	.	.	.	.	.	.	.	.	.	.	.
$252_1 = \chi_4$	2	1	.	1	.	.	.	.	.	.	.	.	.	.	.
$385_1 = \chi_5$	.	1	.	.	1	.	.	.	.	.	.	.	.	.	.
$440_1 = \chi_6$	1	.	1	1	.	.	.	.	.	.	.	.	.	.	.
$560_1 = \chi_7$	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.
$616_1 = \chi_8$	2	1	.	1	1	.	.	.	.	.	.	.	.	.	.
$770_1 = \chi_9$	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.
$770_2 = \chi_{10}$	.	.	1	.	.	1	.	.	.	.	.	.	.	.	.
$1155_1 = \chi_{11}$	1	.	.	1	.	.	1	.	.	.	.	.	.	.	.
$1155_2 = \chi_{12}$	1	.	.	1	.	.	.	1	.	.	.	.	.	.	.
$1155_3 = \chi_{13}$	1	.	.	1	.	.	.	.	1	.	.	.	.	.	.
$1386_1 = \chi_{14}$	.	1	.	.	.	.	.	.	.	1	.	.	.	.	.
$1540_1 = \chi_{15}$	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.
$3080_1 = \chi_{16}$	.	1	1	.	1	2	.	.	.	1	.	.	.	.	.
$3080_2 = \chi_{17}$	.	1	1	.	1	2	.	.	.	1	.	.	.	.	.
$3520_1 = \chi_{18}$	1	1	2	1	1	2	.	.	.	1	.	.	.	.	.
$4620_1 = \chi_{19}$	.	1	1	.	1	2	.	.	.	1	1	.	.	.	.
$4928_1 = \chi_{20}$	1	.	1	2	1	2	1	1	1	.	.	.	.	.	.
$5544_1 = \chi_{21}$	.	.	1	.	1	2	.	.	.	.	.	.	.	.	1
$6160_1 = \chi_{22}$	.	.	1	.	.	1	.	.	.	.	1	.	.	.	1
$6160_2 = \chi_{23}$	.	.	1	.	.	1	.	.	.	.	1	.	.	.	1
$6930_1 = \chi_{24}$	3	1	2	3	1	2	1	1	1	.	1	.	.	.	.
$8064_1 = \chi_{25}$	1	1	2	2	1	2	1	1	1	1	1	.	.	.	.
$9240_1 = \chi_{26}$	1	1	1	1	1	2	1	.	.	1	1	1	.	.	.
$9240_2 = \chi_{27}$	1	1	1	1	1	2	.	1	.	1	1	.	1	.	.
$9240_3 = \chi_{28}$	1	1	1	1	1	2	.	.	1	1	1	.	.	1	.
$10395_1 = \chi_{29}$	.	.	2	.	.	3	.	.	.	1	2	.	.	.	1
$10395_2 = \chi_{30}$	.	.	2	.	.	3	.	.	.	1	2	.	.	.	1
$10395_3 = \chi_{31}$	.	.	.	.	.	.	.	.	.	.	2	1	.	.	1
$10395_4 = \chi_{32}$	.	.	.	.	.	.	.	.	.	.	2	.	1	.	1
$10395_5 = \chi_{33}$	.	.	.	.	.	.	.	.	.	.	2	.	.	1	1
$11264_1 = \chi_{34}$	.	.	1	1	.	2	1	1	1	.	2	.	.	.	1
$13860_1 = \chi_{35}$	3	2	3	3	2	4	1	1	1	1	1	.	.	.	1
$14784_1 = \chi_{36}$	.	.	.	.	1	2	.	.	.	1	1	1	1	1	.
$20790_1 = \chi_{39}$	.	.	2	.	.	3	.	.	.	1	2	1	1	1	1
$20790_2 = \chi_{40}$	.	.	2	.	.	3	.	.	.	1	2	1	1	1	1
$24640_1 = \chi_{41}$	.	1	2	.	1	4	.	.	.	2	3	1	1	1	1
$32768_1 = \chi_{44}$	.	.	2	1	1	6	1	1	1	1	4	1	1	1	2

[illegible]

(Block 1:)	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}	φ_{15}
$4620_4 = \chi_{98}$	3	1	1	3	1	1	1	1	1	.	.	.	.	.	.
$4620_5 = \chi_{98}^{*2}$	3	1	1	3	1	1	1	1	1	.	.	.	.	.	.
$5544_3 = \chi_{99}$	1	.	1	2	.	1	1	1	1	.	1	.	.	.	.
$5544_4 = \chi_{99}^{*2}$	1	.	1	2	.	1	1	1	1	.	1	.	.	.	.
$6720_1 = \chi_{100}$	.	.	1	.	.	2	.	.	.	.	1	.	.	.	1
$6720_2 = \chi_{100}^{*2}$	.	.	1	.	.	2	.	.	.	.	1	.	.	.	1
$6930_2 = \chi_{101}$	.	.	.	.	.	.	.	.	.	.	2	.	.	.	1
$6930_3 = \chi_{101}^{*2}$	.	.	.	.	.	.	.	.	.	.	2	.	.	.	1
$9240_4 = \chi_{102}$	3	2	2	3	2	3	1	1	1	1	1	.	.	.	.
$9240_5 = \chi_{102}^{*2}$	3	2	2	3	2	3	1	1	1	1	1	.	.	.	.
$9240_6 = \chi_{103}$	.	1	2	.	1	3	.	.	.	1	1	.	.	.	1
$9240_7 = \chi_{103}^{*2}$	.	1	2	.	1	3	.	.	.	1	1	.	.	.	1
$10395_6 = \chi_{104}$	.	.	2	.	.	3	.	.	.	1	2	.	.	.	1
$10395_7 = \chi_{104}^{*2}$	.	.	2	.	.	3	.	.	.	1	2	.	.	.	1
$11088_1 = \chi_{105}$	1	.	2	2	1	3	1	1	1	.	1	.	.	.	1
$11088_2 = \chi_{105}^{*2}$	1	.	2	2	1	3	1	1	1	.	1	.	.	.	1
$11880_1 = \chi_{106}$	.	.	.	.	.	1	1	.	.	.	2	1	.	.	1
$11880_2 = \chi_{106}^{*2}$	.	.	.	.	.	1	1	.	.	.	2	1	.	.	1
$11880_3 = \chi_{107}$	.	.	.	.	.	1	.	1	.	.	2	.	1	.	1
$11880_4 = \chi_{107}^{*2}$	.	.	.	.	.	1	.	1	.	.	2	.	1	.	1
$11880_5 = \chi_{108}$	.	.	.	.	.	1	.	.	1	.	2	.	.	1	1
$11880_6 = \chi_{108}^{*2}$	.	.	.	.	.	1	.	.	1	.	2	.	.	1	1
$14784_2 = \chi_{109}$	1	1	3	2	1	4	1	1	1	1	2	.	.	.	1
$14784_3 = \chi_{109}^{*2}$	1	1	3	2	1	4	1	1	1	1	2	.	.	.	1
$18480_2 = \chi_{110}$	.	1	1	.	1	3	.	.	.	2	2	1	1	1	.
$18480_3 = \chi_{110}^{*2}$	.	1	1	.	1	3	.	.	.	2	2	1	1	1	.
$20790_3 = \chi_{113}$	.	.	2	.	.	3	.	.	.	1	2	1	1	1	1
$20790_4 = \chi_{113}^{*2}$	.	.	2	.	.	3	.	.	.	1	2	1	1	1	1
$21504_1 = \chi_{114}$	.	.	1	.	1	4	.	.	.	1	2	1	1	1	1
$21504_2 = \chi_{114}^{*2}$	.	.	1	.	1	4	.	.	.	1	2	1	1	1	1
$27720_2 = \chi_{117}$	.	.	2	.	.	3	.	.	.	1	4	1	1	1	2
$27720_3 = \chi_{117}^{*2}$	.	.	2	.	.	3	.	.	.	1	4	1	1	1	2
$29568_1 = \chi_{118}$	1	1	3	2	2	6	1	1	1	2	3	1	1	1	1
$29568_2 = \chi_{118}^{*2}$	1	1	3	2	2	6	1	1	1	2	3	1	1	1	1

$$\begin{array}{ll}
\varphi_1 = 1_1 & \varphi_9 = 925_3 \\
\varphi_2 = 21_1 & \varphi_{10} = 1365_1 \\
\varphi_3 = 210_1 & \varphi_{11} = 1540_1 \\
\varphi_4 = 229_1 & \varphi_{12} = 3465_1 \\
\varphi_5 = 364_1 & \varphi_{13} = 3465_2 \\
\varphi_6 = 560_1 & \varphi_{14} = 3465_3 \\
\varphi_7 = 925_1 & \varphi_{15} = 3850_1 \\
\varphi_8 = 925_2 &
\end{array}$$

Block 2:	φ_{16}	φ_{17}
$18711_1 = \chi_{37}$	1	.
$18711_2 = \chi_{38}$	.	1
$37422_1 = \chi_{45}$	1	1
$18711_3 = \chi_{111}$	1	.
$18711_4 = \chi_{111}^{*2}$	1	.
$18711_5 = \chi_{112}$	.	1
$18711_6 = \chi_{112}^{*2}$	.	1
$37422_2 = \chi_{119}$	1	1
$37422_3 = \chi_{119}^{*2}$	1	1

$$\begin{aligned}\varphi_{16} &= 18711_1 \\ \varphi_{17} &= 18711_2\end{aligned}$$

Block 3:	φ_{18}
$25515_1 = \chi_{42}$	1
$25515_3 = \chi_{115}$	1
$25515_4 = \chi_{115}^{*23}$	1

$$\varphi_{18} = 25515_1$$

Block 4:	φ_{19}
$25515_2 = \chi_{43}$	1
$25515_5 = \chi_{116}$	1
$25515_6 = \chi_{116}^{*23}$	1

$$\varphi_{19} = 25515_2$$

Block 5:	φ_{20}
$40095_1 = \chi_{46}$	1
$40095_2 = \chi_{120}$	1
$40095_3 = \chi_{120}^{*2}$	1

$$\varphi_{20} = 40095_1$$

Block 6:	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}	φ_{26}	φ_{27}	φ_{28}	φ_{30}
$56_1 = \chi_{47}$	1	.	.	.	.	.	.	.	.
$176_1 = \chi_{48}$	1	1	.	.	.	.	.	.	.
$616_2 = \chi_{49}$	1	.	1	.	.	.	.	.	.
$792_1 = \chi_{50}$	2	1	1	.	.	.	.	.	.
$1232_1 = \chi_{51}$	1	1	.	1	.	.	.	.	.
$2464_1 = \chi_{52}$	1	.	1	.	1	.	.	.	.
$3080_3 = \chi_{53}$	1	1	.	1	1	.	.	.	.
$3360_1 = \chi_{54}$	.	1	.	1	.	1	.	.	.
$3360_2 = \chi_{55}$	.	1	.	1	.	.	1	.	.
$5544_2 = \chi_{56}$	2	1	1	1	2	.	.	.	.
$6160_3 = \chi_{57}$	1	1	1	1	.	1	1	.	.
$6160_4 = \chi_{58}$	1	1	1	1	.	1	1	.	.
$6160_5 = \chi_{59}$	1	1	1	1	.	1	1	.	.
$9856_1 = \chi_{61}$	3	2	2	2	1	1	1	.	.
$11264_2 = \chi_{62}$	3	1	1	.	1	.	.	.	1
$12320_1 = \chi_{63}$	3	1	1	1	1	.	.	.	1
$12320_2 = \chi_{64}$	.	1	1	.	.	1	1	1	.
$12320_3 = \chi_{65}$	.	1	1	.	.	1	1	1	.
$15840_1 = \chi_{67}$	.	.	.	.	.	.	.	1	1
$18480_1 = \chi_{68}$	4	2	2	2	1	1	1	.	1
$22176_1 = \chi_{70}$	4	2	2	1	2	.	.	1	1
$24640_2 = \chi_{71}$	3	2	2	1	1	1	1	1	1
$24640_3 = \chi_{72}$	3	2	2	1	1	1	1	1	1
$24640_4 = \chi_{73}$	3	2	2	1	1	1	1	1	1
$27720_1 = \chi_{74}$	3	4	3	3	1	3	3	1	.
$30240_1 = \chi_{75}$	8	2	4	2	2	1	1	.	2
$32768_2 = \chi_{76}$	4	4	3	2	2	2	2	1	1
$44352_1 = \chi_{77}$	5	5	4	3	1	3	3	2	1
$120_1 = \chi_{121}$	.	1	.	.	.	.	.	.	.
$120_2 = \chi_{121}^{*2}$	.	1	.	.	.	.	.	.	.
$672_1 = \chi_{122}$	2	.	1	.	.	.	.	.	.
$672_2 = \chi_{122}^{*2}$	2	.	1	.	.	.	.	.	.
$1056_1 = \chi_{123}$	.	.	.	1	.	.	.	.	.
$1056_2 = \chi_{123}^{*2}$	.	.	.	1	.	.	.	.	.
$1848_1 = \chi_{124}$	.	.	.	.	1	.	.	.	.
$1848_2 = \chi_{124}^{*2}$	.	.	.	.	1	.	.	.	.
$2640_1 = \chi_{125}$	2	1	1	.	1	.	.	.	.
$2640_2 = \chi_{125}^{*2}$	2	1	1	.	1	.	.	.	.
$3696_3 = \chi_{126}$	2	1	1	1	1	.	.	.	.
$3696_4 = \chi_{126}^{*2}$	2	1	1	1	1	.	.	.	.

(Block 6:)	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}	φ_{26}	φ_{27}	φ_{28}	φ_{30}
$5544_5 = \chi_{127}$	.	1	.	1	.	1	1	.	.
$5544_6 = \chi_{127}^{*2}$	.	1	.	1	.	1	1	.	.
$6336_1 = \chi_{128}$	2	2	1	1	.	1	1	.	.
$6336_2 = \chi_{128}^{*2}$	2	2	1	1	.	1	1	.	.
$7392_1 = \chi_{129}$	.	1	.	.	.	.	.	1	.
$7392_2 = \chi_{129}^{*2}$	.	1	.	.	.	.	.	1	.
$7392_3 = \chi_{130}$	2	2	1	2	.	1	1	.	.
$7392_4 = \chi_{130}^{*2}$	2	2	1	2	.	1	1	.	.
$9240_8 = \chi_{132}$	2	.	1	.	.	.	.	.	1
$9240_9 = \chi_{132}^{*2}$	2	.	1	.	.	.	.	.	1
$9240_{10} = \chi_{133}$	2	2	1	2	1	1	1	.	.
$9240_{11} = \chi_{133}^{*2}$	2	2	1	2	1	1	1	.	.
$14784_4 = \chi_{135}$	4	1	2	1	2	.	.	.	1
$14784_5 = \chi_{135}^{*2}$	4	1	2	1	2	.	.	.	1
$15120_1 = \chi_{136}$	4	1	2	1	1	.	1	.	1
$15120_2 = \chi_{136}^{*23}$	4	1	2	1	1	.	1	.	1
$15120_3 = \chi_{137}$	4	1	2	1	1	1	.	.	1
$15120_4 = \chi_{137}^{*23}$	4	1	2	1	1	1	.	.	1
$18480_4 = \chi_{138}$	2	1	1	.	1	.	.	1	1
$18480_5 = \chi_{138}^{*2}$	2	1	1	.	1	.	.	1	1
$18480_6 = \chi_{139}$	1	2	2	1	.	2	2	1	.
$18480_7 = \chi_{139}^{*2}$	1	2	2	1	.	2	2	1	.
$21120_1 = \chi_{140}$	6	3	3	2	2	1	1	.	1
$21120_2 = \chi_{140}^{*2}$	6	3	3	2	2	1	1	.	1
$21504_3 = \chi_{142}$	1	3	2	2	1	2	2	1	.
$21504_4 = \chi_{142}^{*2}$	1	3	2	2	1	2	2	1	.
$22176_2 = \chi_{143}$	2	2	1	1	.	1	1	1	1
$22176_3 = \chi_{143}^{*2}$	2	2	1	1	.	1	1	1	1
$22176_4 = \chi_{144}$	3	3	3	2	1	2	2	1	.
$22176_5 = \chi_{144}^{*2}$	3	3	3	2	1	2	2	1	.
$27720_4 = \chi_{145}$	4	3	2	2	2	1	1	1	1
$27720_5 = \chi_{145}^{*2}$	4	3	2	2	2	1	1	1	1
$36960_1 = \chi_{146}$	3	3	3	1	1	2	2	2	1
$36960_2 = \chi_{146}^{*2}$	3	3	3	1	1	2	2	2	1
$36960_3 = \chi_{147}$	5	4	4	3	1	3	3	1	1
$36960_4 = \chi_{147}^{*2}$	5	4	4	3	1	3	3	1	1
$36960_5 = \chi_{148}$	6	3	3	2	2	1	1	1	2
$36960_6 = \chi_{148}^{*2}$	6	3	3	2	2	1	1	1	2

$$\begin{aligned}
\varphi_{21} &= 56_1 \\
\varphi_{22} &= 120_1 \\
\varphi_{23} &= 560_2 \\
\varphi_{24} &= 1056_1 \\
\varphi_{25} &= 1848_1 \\
\varphi_{26} &= 2184_1 \\
\varphi_{27} &= 2184_2 \\
\varphi_{28} &= 7272_1 \\
\varphi_{30} &= 8568_1
\end{aligned}$$

Block 7:	φ_{29}	φ_{31}
$7776_1 = \chi_{60}$	1	.
$13608_1 = \chi_{66}$	.	1
$21384_1 = \chi_{69}$	1	1
$7776_2 = \chi_{131}$	1	.
$7776_3 = \chi_{131}^{*2}$	1	.
$13608_2 = \chi_{134}$	.	1
$13608_3 = \chi_{134}^{*2}$	.	1
$21384_2 = \chi_{141}$	1	1
$21384_3 = \chi_{141}^{*2}$	1	1

$$\begin{aligned} \varphi_{29} &= 7776_1 \\ \varphi_{31} &= 13608_1 \end{aligned}$$