

$U_4(3).2_3 \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	7×6
	2	0	$21_1 = \chi_{2,0}, \varphi_{2,0}$
	3	0	$21_2 = \chi_{2,1}, \varphi_{2,1}$
	4	0	$70_1 = \chi_{3+}, \varphi_{3+}$
	5	0	$140_1 = \chi_{6,0}, \varphi_{6,0}$
	6	0	$140_2 = \chi_{6,1}, \varphi_{6,1}$
	7	0	$189_1 = \chi_{7,0}, \varphi_{7,0}$
	8	0	$189_2 = \chi_{7,1}, \varphi_{7,1}$
	9	0	$210_1 = \chi_{8,0}, \varphi_{8,0}$
	10	0	$210_2 = \chi_{8,1}, \varphi_{8,1}$
	11	0	$560_1 = \chi_{9+}, \varphi_{9+}$
	$12 = \overline{11}$	0	$560_2 = \chi_{10+}, \varphi_{10+}$
	13	0	$630_1 = \chi_{13+}, \varphi_{13+}$
	14	0	$420_1 = \chi_{15,0}, \varphi_{15,0}$
	15	0	$420_2 = \chi_{15,1}, \varphi_{15,1}$
	16	0	$560_3 = \chi_{16,0}, \varphi_{16,0}$
	$17 = \overline{16}$	0	$560_4 = \chi_{16,1}, \varphi_{16,1}$
	18	0	$896_1 = \chi_{20,0}, \varphi_{18,0}$
	19	0	$896_2 = \chi_{20,1}, \varphi_{18,1}$
$2.G :$	20	1	7×6
	21	0	$112_1 = \chi_{22+}, \varphi_{20+}$
	22	0	$70_2 = \chi_{24,0}, \varphi_{22,0}$
	23	0	$70_3 = \chi_{24,1}, \varphi_{22,1}$
	24	0	$140_3 = \chi_{25+}, \varphi_{23+}$
	$25 = \overline{24}$	0	$140_4 = \chi_{26+}, \varphi_{24+}$
	26	0	$420_3 = \chi_{30+}, \varphi_{28+}$
	27	0	$1008_1 = \chi_{32+}, \varphi_{30+}$
	28	0	$560_5 = \chi_{35,0}, \varphi_{33,0}$
	29	0	$560_6 = \chi_{35,1}, \varphi_{33,1}$
	30	0	$630_2 = \chi_{36,0}, \varphi_{34,0}$
	31	0	$630_3 = \chi_{36,1}, \varphi_{34,1}$
	32	0	$896_3 = \chi_{39,0}, \varphi_{35,0}$
	33	0	$896_4 = \chi_{39,1}, \varphi_{35,1}$
$4.G :$	34	1	5×3
	35	0	$280_1 = \chi_{42+}, \varphi_{38+}$
	36	0	$448_1 = \chi_{43+}, \varphi_{39+}$
	37	0	$448_2 = \chi_{45+}, \varphi_{41+}$
	$38 = \overline{37}$	0	$448_3 = \chi_{44+}, \varphi_{40+}$
	$39 = \overline{36}$	0	$448_4 = \chi_{46+}, \varphi_{42+}$
	40	0	$560_7 = \chi_{47+}, \varphi_{43+}$

	blocks	defect	matrix
	41	0	$560_8 = \chi_{48+}, \varphi_{44+}$
	$42 = \overline{41}$	0	$560_9 = \chi_{49+}, \varphi_{45+}$
	43	0	$840_1 = \chi_{50+}, \varphi_{46+}$
	44	0	$1680_1 = \chi_{54+}, \varphi_{48+}$
	45	0	$1792_1 = \chi_{55+}, \varphi_{49+}$
$3_1.G :$	46	1	7×6
	$47 = 46^*$		
	48	0	$126_1 = \chi_{102,0}, \varphi_{89,0}$
	49	0	$126_2 = \chi_{102,1}, \varphi_{89,1}$
	$50 = 48^*$		
	$51 = 49^*$		
	52	0	$189_3 = \chi_{103,0}, \varphi_{90,0}$
	53	0	$189_4 = \chi_{103,1}, \varphi_{90,1}$
	$54 = 52^*$		
	$55 = 53^*$		
	56	0	$315_1 = \chi_{104,0}, \varphi_{91,0}$
	57	0	$315_2 = \chi_{104,1}, \varphi_{91,1}$
	$58 = 56^*$		
	$59 = 57^*$		
	60	0	$630_4 = \chi_{105+}, \varphi_{92+}$
	$61 = 60^*$		
	62	0	$630_6 = \chi_{107,0}, \varphi_{94,0}$
	63	0	$630_7 = \chi_{107,1}, \varphi_{94,1}$
	$64 = 62^*$		
	$65 = 63^*$		
	66	0	$756_1 = \chi_{110,0}, \varphi_{96,0}$
	67	0	$756_2 = \chi_{110,1}, \varphi_{96,1}$
	$68 = 66^*$		
	$69 = 67^*$		
	70	0	$945_1 = \chi_{111,0}, \varphi_{97,0}$
	71	0	$945_2 = \chi_{111,1}, \varphi_{97,1}$
	$72 = 70^*$		
	$73 = 71^*$		
$6_1.G :$	74	1	7×6
	$75 = 74^*$		
	76	0	$252_1 = \chi_{113+}, \varphi_{99+}$
	$77 = 76^*$		
	78	0	$252_3 = \chi_{115+}, \varphi_{101+}$
	$79 = 78^*$		
	80	0	$504_1 = \chi_{119,0}, \varphi_{105,0}$

	blocks	defect	matrix
	81 82 = 80* 83 = 81* 84 85 86 = 84* 87 = 85* 88 89 90 = 88* 91 = 89*	0 0 0 0 0	$504_2 = \chi_{119,1}, \varphi_{105,1}$ $630_{10} = \chi_{121,0}, \varphi_{106,0}$ $630_{11} = \chi_{121,1}, \varphi_{106,1}$ $1260_1 = \chi_{123,0}, \varphi_{107,0}$ $1260_2 = \chi_{123,1}, \varphi_{107,1}$
$12_1.G :$	92 93 = 92 * 5 94 95 = 94 * 5 96 97 = 96 * 5 98 99 = 98 * 5 100 101 = 100 * 5	1 0 0 0 0	5×3 $1008_2 = \chi_{128+}, \varphi_{111+}$ $1008_4 = \chi_{129+}, \varphi_{112+}$ $1512_1 = \chi_{131+}, \varphi_{113+}$ $2520_1 = \chi_{132+}, \varphi_{114+}$
$3_2.G :$	102 103 = 102* 104 105 106 = 104* 107 = 105* 108 109 110 = 108* 111 = 109* 112 113 114 = 112* 115 = 113* 116 117 = 116* 118 119 120 = 118*	1 0 0 0 0 0 0 0 0 0 0	7×6 $126_1 = \chi_{102,0}, \varphi_{89,0}$ $126_2 = \chi_{102,1}, \varphi_{89,1}$ $189_3 = \chi_{103,0}, \varphi_{90,0}$ $189_4 = \chi_{103,1}, \varphi_{90,1}$ $315_1 = \chi_{104,0}, \varphi_{91,0}$ $315_2 = \chi_{104,1}, \varphi_{91,1}$ $630_4 = \chi_{105+}, \varphi_{92+}$ $630_6 = \chi_{107,0}, \varphi_{94,0}$ $630_7 = \chi_{107,1}, \varphi_{94,1}$

	blocks	defect	matrix
	121 = 119* 122 123 124 = 122* 125 = 123* 126 127 128 = 126* 129 = 127*	 0 0 0 0 	 $756_1 = \chi_{110,0}, \varphi_{96,0}$ $756_2 = \chi_{110,1}, \varphi_{96,1}$ $945_1 = \chi_{111,0}, \varphi_{97,0}$ $945_2 = \chi_{111,1}, \varphi_{97,1}$
$6_2.G :$	130 131 = 130* 132 133 = 132* 134 135 = 134* 136 137 138 = 136* 139 = 137* 140 141 142 = 140* 143 = 141* 144 145 146 = 144* 147 = 145*	1 0 0 0 0 0 0 0 0 0 0	7×6 $252_1 = \chi_{113+}, \varphi_{99+}$ $252_3 = \chi_{115+}, \varphi_{101+}$ $504_1 = \chi_{119,0}, \varphi_{105,0}$ $504_2 = \chi_{119,1}, \varphi_{105,1}$ $630_{10} = \chi_{121,0}, \varphi_{106,0}$ $630_{11} = \chi_{121,1}, \varphi_{106,1}$ $1260_1 = \chi_{123,0}, \varphi_{107,0}$ $1260_2 = \chi_{123,1}, \varphi_{107,1}$
$12_2.G :$	148 149 = 148 * 5 150 151 = 150 * 5 152 153 = 152 * 5 154 155 = 154 * 5 156 157 = 156 * 5	1 0 0 0 0 0	5×3 $1008_2 = \chi_{128+}, \varphi_{111+}$ $1008_4 = \chi_{129+}, \varphi_{112+}$ $1512_1 = \chi_{131+}, \varphi_{113+}$ $2520_1 = \chi_{132+}, \varphi_{114+}$

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{17,0}$	$\varphi_{17,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.
$90_1 = \chi_{5,0}$	1	.	1	.	.	.
$90_2 = \chi_{5,1}$	.	1	.	1	.	.
$1280_1 = \chi_{17+}$	.	.	.	.	1	1
$729_1 = \chi_{19,0}$	.	.	.	1	1	.
$729_2 = \chi_{19,1}$	.	.	1	.	.	1

$$\begin{aligned} \varphi_{1,0} &= 1_1 \\ \varphi_{1,1} &= 1_2 \\ \varphi_{5,0} &= 89_1 \\ \varphi_{5,1} &= 89_2 \\ \varphi_{17,0} &= 640_1 \\ \varphi_{17,1} &= 640_2 \end{aligned}$$

Block 20:	$\varphi_{19,0}$	$\varphi_{19,1}$	$\varphi_{27,0}$	$\varphi_{27,1}$	$\varphi_{32,0}$	$\varphi_{32,1}$
$20_1 = \chi_{21,0}$	1	.	.	.	.	.
$20_2 = \chi_{21,1}$	.	1	.	.	.	.
$120_1 = \chi_{29,0}$	.	.	1	.	.	.
$120_2 = \chi_{29,1}$	.	.	.	1	.	.
$540_1 = \chi_{34,0}$	1	.	.	.	1	.
$540_2 = \chi_{34,1}$	.	1	.	.	.	1
$1280_2 = \chi_{37+}$	.	.	1	1	1	1

$$\begin{aligned} \varphi_{19,0} &= 20_1 \\ \varphi_{19,1} &= 20_2 \\ \varphi_{27,0} &= 120_1 \\ \varphi_{27,1} &= 120_2 \\ \varphi_{32,0} &= 520_1 \\ \varphi_{32,1} &= 520_2 \end{aligned}$$

Block 34:	φ_{36+}	φ_{37+}	φ_{47+}
$40_1 = \chi_{40+}$	1	.	.
$240_1 = \chi_{41+}$	.	1	.
$1080_1 = \chi_{51+}$	1	.	1
$1280_3 = \chi_{52+}$	.	1	1
$1280_4 = \chi_{53+}$	.	1	1

$$\begin{aligned} \varphi_{36+} &= 40_1 \\ \varphi_{37+} &= 240_1 \\ \varphi_{47+} &= 1040_1 \end{aligned}$$

Blocks 46, 47:	$\varphi_{87,0}$	$\varphi_{87,1}$	$\varphi_{88,0}$	$\varphi_{88,1}$	$\varphi_{95,0}$	$\varphi_{95,1}$
$36_1 = \chi_{99,0}$	1	.	.	.	.	.
$36_2 = \chi_{99,1}$	.	1	.	.	.	.
$90_3 = \chi_{100+}$	.	.	1	1	.	.
$720_1 = \chi_{108,0}$	.	1	.	.	1	.
$720_2 = \chi_{108,1}$	1	.	.	.	.	1
$729_3 = \chi_{109,0}$	.	.	1	.	1	.
$729_4 = \chi_{109,1}$	.	.	.	1	.	1

$$\begin{aligned} \varphi_{87,0} &= 36_1 \\ \varphi_{87,1} &= 36_2 \\ \varphi_{88,0} &= 45_1 \\ \varphi_{88,1} &= 45_2 \\ \varphi_{95,0} &= 684_1 \\ \varphi_{95,1} &= 684_2 \end{aligned}$$

Blocks 74, 75:	$\varphi_{98,0}$	$\varphi_{98,1}$	$\varphi_{103,0}$	$\varphi_{103,1}$	$\varphi_{104,0}$	$\varphi_{104,1}$
$90_5 = \chi_{112,0}$	1	.	.	.	.	.
$90_6 = \chi_{112,1}$	.	1	.	.	.	.
$540_3 = \chi_{117+}$	.	.	1	1	.	.
$540_5 = \chi_{120,0}$	.	1	.	.	1	.
$540_6 = \chi_{120,1}$	1	.	.	.	.	1
$720_5 = \chi_{122,0}$	.	.	1	.	1	.
$720_6 = \chi_{122,1}$	.	.	.	1	.	1

$$\begin{aligned} \varphi_{98,0} &= 90_1 \\ \varphi_{98,1} &= 90_2 \\ \varphi_{103,0} &= 270_1 \\ \varphi_{103,1} &= 270_2 \\ \varphi_{104,0} &= 450_1 \\ \varphi_{104,1} &= 450_2 \end{aligned}$$

Block 92:	φ_{108+}	φ_{109+}	φ_{110+}
$72_1 = \chi_{124+}$	1	.	.
$432_1 = \chi_{125+}$	.	1	.
$720_9 = \chi_{126+}$	1	.	1
$720_{11} = \chi_{127+}$	1	.	1
$1080_2 = \chi_{130+}$	.	1	1

$$\begin{aligned} \varphi_{108+} &= 72_1 \\ \varphi_{109+} &= 432_1 \\ \varphi_{110+} &= 648_1 \end{aligned}$$

Blocks 102, 103:	$\varphi_{87,0}$	$\varphi_{87,1}$	$\varphi_{88,0}$	$\varphi_{88,1}$	$\varphi_{95,0}$	$\varphi_{95,1}$
$36_1 = \chi_{99,0}$	1	.	.	.	.	.
$36_2 = \chi_{99,1}$	.	1	.	.	.	.
$90_3 = \chi_{100+}$	.	.	1	1	.	.
$720_1 = \chi_{108,0}$	.	1	.	.	1	.
$720_2 = \chi_{108,1}$	1	.	.	.	.	1
$729_3 = \chi_{109,0}$	.	.	1	.	1	.
$729_4 = \chi_{109,1}$	.	.	.	1	.	1

$$\begin{aligned} \varphi_{87,0} &= 36_1 \\ \varphi_{87,1} &= 36_2 \\ \varphi_{88,0} &= 45_1 \\ \varphi_{88,1} &= 45_2 \\ \varphi_{95,0} &= 684_1 \\ \varphi_{95,1} &= 684_2 \end{aligned}$$

Blocks 130, 131:	$\varphi_{98,0}$	$\varphi_{98,1}$	$\varphi_{103,0}$	$\varphi_{103,1}$	$\varphi_{104,0}$	$\varphi_{104,1}$
$90_5 = \chi_{112,0}$	1	.	.	.	.	.
$90_6 = \chi_{112,1}$	.	1	.	.	.	.
$540_3 = \chi_{117+}$	.	.	1	1	.	.
$540_5 = \chi_{120,0}$	.	1	.	.	1	.
$540_6 = \chi_{120,1}$	1	.	.	.	.	1
$720_5 = \chi_{122,0}$	.	.	1	.	1	.
$720_6 = \chi_{122,1}$	.	.	.	1	.	1

$$\begin{aligned} \varphi_{98,0} &= 90_1 \\ \varphi_{98,1} &= 90_2 \\ \varphi_{103,0} &= 270_1 \\ \varphi_{103,1} &= 270_2 \\ \varphi_{104,0} &= 450_1 \\ \varphi_{104,1} &= 450_2 \end{aligned}$$

Block 148:	φ_{108+}	φ_{109+}	φ_{110+}
$72_1 = \chi_{124+}$	1	.	.
$432_1 = \chi_{125+}$	.	1	.
$720_9 = \chi_{126+}$	1	.	1
$720_{11} = \chi_{127+}$	1	.	1
$1080_2 = \chi_{130+}$	.	1	1

$$\begin{aligned} \varphi_{108+} &= 72_1 \\ \varphi_{109+} &= 432_1 \\ \varphi_{110+} &= 648_1 \end{aligned}$$