

$U_4(3).4 \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	5×3
	2	1	5×3
	3	1	5×3
	$4 = \overline{2}$	1	5×3
	5	0	$21_1 = \chi_{2,0}, \varphi_{2,0}$
	6	0	$21_2 = \chi_{2,1}, \varphi_{2,1}$
	7	0	$21_3 = \chi_{2,2}, \varphi_{2,2}$
	$8 = \overline{6}$	0	$21_4 = \chi_{2,3}, \varphi_{2,3}$
	9	0	$70_1 = \chi_{3,0+}, \varphi_{3,0+}$
	10	0	$70_2 = \chi_{3,1+}, \varphi_{3,1+}$
	11	0	$140_1 = \chi_{6,0}, \varphi_{6,0}$
	12	0	$140_2 = \chi_{6,1}, \varphi_{6,1}$
	13	0	$140_3 = \chi_{6,2}, \varphi_{6,2}$
	$14 = \overline{12}$	0	$140_4 = \chi_{6,3}, \varphi_{6,3}$
	15	0	$189_1 = \chi_{7,0}, \varphi_{7,0}$
	16	0	$189_2 = \chi_{7,1}, \varphi_{7,1}$
	17	0	$189_3 = \chi_{7,2}, \varphi_{7,2}$
	$18 = \overline{16}$	0	$189_4 = \chi_{7,3}, \varphi_{7,3}$
	19	0	$210_1 = \chi_{8,0}, \varphi_{8,0}$
	20	0	$210_2 = \chi_{8,1}, \varphi_{8,1}$
	21	0	$210_3 = \chi_{8,2}, \varphi_{8,2}$
	$22 = \overline{20}$	0	$210_4 = \chi_{8,3}, \varphi_{8,3}$
	23	0	$1120_1 = \chi_{9+}, \varphi_{9+}$
	24	0	$630_1 = \chi_{13,0+}, \varphi_{13,0+}$
	25	0	$630_2 = \chi_{13,1+}, \varphi_{13,1+}$
	26	0	$420_1 = \chi_{15,0}, \varphi_{15,0}$
	27	0	$420_2 = \chi_{15,1}, \varphi_{15,1}$
	28	0	$420_3 = \chi_{15,2}, \varphi_{15,2}$
	$29 = \overline{27}$	0	$420_4 = \chi_{15,3}, \varphi_{15,3}$
	30	0	$560_1 = \chi_{16,0}, \varphi_{16,0}$
	31	0	$560_2 = \chi_{16,1}, \varphi_{16,1}$
	$32 = \overline{31}$	0	$560_3 = \chi_{16,2}, \varphi_{16,2}$
	$33 = \overline{30}$	0	$560_4 = \chi_{16,3}, \varphi_{16,3}$
	34	0	$896_1 = \chi_{20,0}, \varphi_{18,0}$
	35	0	$896_2 = \chi_{20,1}, \varphi_{18,1}$
	36	0	$896_3 = \chi_{20,2}, \varphi_{18,2}$
	$37 = \overline{35}$	0	$896_4 = \chi_{20,3}, \varphi_{18,3}$
$2.G :$	38	1	5×3
	39	1	5×3
	40	1	5×3

	blocks	defect	matrix
	41 = $\overline{39}$	1	5×3
	42	0	$112_1 = \chi_{22,0+}, \varphi_{20,0+}$
	43 = $\overline{42}$	0	$112_2 = \chi_{22,1+}, \varphi_{20,1+}$
	44	0	$70_3 = \chi_{24,0}, \varphi_{22,0}$
	45	0	$70_4 = \chi_{24,1}, \varphi_{22,1}$
	46 = $\overline{45}$	0	$70_5 = \chi_{24,2}, \varphi_{22,2}$
	47 = $\overline{44}$	0	$70_6 = \chi_{24,3}, \varphi_{22,3}$
	48	0	$280_1 = \chi_{25+}, \varphi_{23+}$
	49	0	$210_5 = \chi_{30,0}, \varphi_{28,0}$
	50	0	$210_6 = \chi_{30,1}, \varphi_{28,1}$
	51	0	$210_7 = \chi_{30,2}, \varphi_{28,2}$
	52	0	$210_8 = \chi_{30,3}, \varphi_{28,3}$
	53 = $\overline{49}$	0	$210_9 = \chi_{31,0}, \varphi_{29,0}$
	54 = $\overline{52}$	0	$210_{10} = \chi_{31,1}, \varphi_{29,1}$
	55 = $\overline{51}$	0	$210_{11} = \chi_{31,2}, \varphi_{29,2}$
	56 = $\overline{50}$	0	$210_{12} = \chi_{31,3}, \varphi_{29,3}$
	57	0	$1008_1 = \chi_{32,0+}, \varphi_{30,0+}$
	58 = $\overline{57}$	0	$1008_2 = \chi_{32,1+}, \varphi_{30,1+}$
	59	0	$560_5 = \chi_{35,0}, \varphi_{33,0}$
	60	0	$560_6 = \chi_{35,1}, \varphi_{33,1}$
	61 = $\overline{60}$	0	$560_7 = \chi_{35,2}, \varphi_{33,2}$
	62 = $\overline{59}$	0	$560_8 = \chi_{35,3}, \varphi_{33,3}$
	63	0	$630_3 = \chi_{36,0}, \varphi_{34,0}$
	64	0	$630_4 = \chi_{36,1}, \varphi_{34,1}$
	65 = $\overline{64}$	0	$630_5 = \chi_{36,2}, \varphi_{34,2}$
	66 = $\overline{63}$	0	$630_6 = \chi_{36,3}, \varphi_{34,3}$
	67	0	$896_5 = \chi_{39,0}, \varphi_{35,0}$
	68	0	$896_6 = \chi_{39,1}, \varphi_{35,1}$
	69 = $\overline{68}$	0	$896_7 = \chi_{39,2}, \varphi_{35,2}$
	70 = $\overline{67}$	0	$896_8 = \chi_{39,3}, \varphi_{35,3}$
4.G :	71	1	5×3
	72	1	5×3
	73	1	5×3
	74	1	5×3
	75 = 71*		
	76 = 74*		
	77 = 73*		
	78 = 72*		
	79	0	$140_5 = \chi_{42,0}, \varphi_{38,0}$
	80	0	$140_6 = \chi_{42,1}, \varphi_{38,1}$

	blocks	defect	matrix
	81	0	$140_7 = \chi_{42,2}, \varphi_{38,2}$
	82	0	$140_8 = \chi_{42,3}, \varphi_{38,3}$
	83 = 79*		
	84 = 82*		
	85 = 81*		
	86 = 80*		
	87	0	$896_9 = \chi_{43+}, \varphi_{39+}$
	88 = 87*		
	89	0	$280_2 = \chi_{47,0}, \varphi_{43,0}$
	90	0	$280_3 = \chi_{47,1}, \varphi_{43,1}$
	91	0	$280_4 = \chi_{47,2}, \varphi_{43,2}$
	92	0	$280_5 = \chi_{47,3}, \varphi_{43,3}$
	93 = 89*		
	94 = 92*		
	95 = 91*		
	96 = 90*		
	97	0	$560_9 = \chi_{48,0+}, \varphi_{44,0+}$
	98	0	$560_{10} = \chi_{48,1+}, \varphi_{44,1+}$
	99 = 97*		
	100 = 98*		
	101	0	$420_5 = \chi_{50,0}, \varphi_{46,0}$
	102	0	$420_6 = \chi_{50,1}, \varphi_{46,1}$
	103	0	$420_7 = \chi_{50,2}, \varphi_{46,2}$
	104	0	$420_8 = \chi_{50,3}, \varphi_{46,3}$
	105 = 101*		
	106 = 104*		
	107 = 103*		
	108 = 102*		
	109	0	$840_1 = \chi_{54,0}, \varphi_{48,0}$
	110	0	$840_2 = \chi_{54,1}, \varphi_{48,1}$
	111	0	$840_3 = \chi_{54,2}, \varphi_{48,2}$
	112	0	$840_4 = \chi_{54,3}, \varphi_{48,3}$
	113 = 109*		
	114 = 112*		
	115 = 111*		
	116 = 110*		
	117	0	$896_{11} = \chi_{55,0}, \varphi_{49,0}$
	118	0	$896_{12} = \chi_{55,1}, \varphi_{49,1}$
	119	0	$896_{13} = \chi_{55,2}, \varphi_{49,2}$
	120	0	$896_{14} = \chi_{55,3}, \varphi_{49,3}$

	blocks	defect	matrix
	121 = 117*		
	122 = 120*		
	123 = 119*		
	124 = 118*		

Block 1:	$\varphi_{1,0}$	$\varphi_{5,0}$	$\varphi_{17,2}$	
$1_1 = \chi_{1,0}$	1	.	.	$\varphi_{1,0} = 1_1$
$90_1 = \chi_{5,0}$	1	1	.	$\varphi_{5,0} = 89_1$
$640_3 = \chi_{17,2}$	.	.	1	$\varphi_{17,2} = 640_3$
$640_7 = \chi_{18,2}$	.	.	1	
$729_3 = \chi_{19,2}$	.	1	1	

Block 2:	$\varphi_{1,1}$	$\varphi_{5,1}$	$\varphi_{17,3}$	
$1_2 = \chi_{1,1}$	1	.	.	$\varphi_{1,1} = 1_2$
$90_2 = \chi_{5,1}$	1	1	.	$\varphi_{5,1} = 89_2$
$640_4 = \chi_{17,3}$	.	.	1	$\varphi_{17,3} = 640_4$
$640_8 = \chi_{18,3}$	.	.	1	
$729_4 = \chi_{19,3}$	.	1	1	

Block 3:	$\varphi_{1,2}$	$\varphi_{5,2}$	$\varphi_{17,0}$	
$1_3 = \chi_{1,2}$	1	.	.	$\varphi_{1,2} = 1_3$
$90_3 = \chi_{5,2}$	1	1	.	$\varphi_{5,2} = 89_3$
$640_1 = \chi_{17,0}$	.	.	1	$\varphi_{17,0} = 640_1$
$640_5 = \chi_{18,0}$	.	.	1	
$729_1 = \chi_{19,0}$	.	1	1	

Block 4:	$\varphi_{1,3}$	$\varphi_{5,3}$	$\varphi_{17,1}$	
$1_4 = \chi_{1,3}$	1	.	.	$\varphi_{1,3} = 1_4$
$90_4 = \chi_{5,3}$	1	1	.	$\varphi_{5,3} = 89_4$
$640_2 = \chi_{17,1}$	.	.	1	$\varphi_{17,1} = 640_2$
$640_6 = \chi_{18,1}$	.	.	1	
$729_2 = \chi_{19,1}$	.	1	1	

Block 38:	$\varphi_{19,0}$	$\varphi_{27,0}$	$\varphi_{32,0}$	
$20_1 = \chi_{21,0}$	1	.	.	$\varphi_{19,0} = 20_1$
$120_1 = \chi_{29,0}$	.	1	.	$\varphi_{27,0} = 120_1$
$540_1 = \chi_{34,0}$	1	.	1	$\varphi_{32,0} = 520_1$
$640_9 = \chi_{37,0}$	.	1	1	
$640_{13} = \chi_{38,0}$	.	1	1	

Block 39:	$\varphi_{19,1}$	$\varphi_{27,1}$	$\varphi_{32,1}$	
$20_2 = \chi_{21,1}$	1	.	.	$\varphi_{19,1} = 20_2$
$120_2 = \chi_{29,1}$	.	1	.	$\varphi_{27,1} = 120_2$
$540_2 = \chi_{34,1}$	1	.	1	$\varphi_{32,1} = 520_2$
$640_{10} = \chi_{37,1}$	.	1	1	
$640_{14} = \chi_{38,1}$	.	1	1	

Block 40:	$\varphi_{19,2}$	$\varphi_{27,2}$	$\varphi_{32,2}$	
$20_3 = \chi_{21,2}$	1	.	.	$\varphi_{19,2} = 20_3$
$120_3 = \chi_{29,2}$	.	1	.	$\varphi_{27,2} = 120_3$
$540_3 = \chi_{34,2}$	1	.	1	$\varphi_{32,2} = 520_3$
$640_{11} = \chi_{37,2}$	.	1	1	
$640_{15} = \chi_{38,2}$	.	1	1	

Block 41:	$\varphi_{19,3}$	$\varphi_{27,3}$	$\varphi_{32,3}$	
$20_4 = \chi_{21,3}$	1	.	.	$\varphi_{19,3} = 20_4$
$120_4 = \chi_{29,3}$	.	1	.	$\varphi_{27,3} = 120_4$
$540_4 = \chi_{34,3}$	1	.	1	$\varphi_{32,3} = 520_4$
$640_{12} = \chi_{37,3}$	.	1	1	
$640_{16} = \chi_{38,3}$	.	1	1	

Blocks 71, 75:	$\varphi_{36,0}$	$\varphi_{37,0}$	$\varphi_{47,2}$	
$20_5 = \chi_{40,0}$	1	.	.	$\varphi_{36,0} = 20_5$
$120_5 = \chi_{41,0}$	.	1	.	$\varphi_{37,0} = 120_5$
$540_7 = \chi_{51,2}$	1	.	1	$\varphi_{47,2} = 520_7$
$640_{18} = \chi_{52,1}$	.	1	1	
$640_{26} = \chi_{53,1}$	.	1	1	

Blocks 72, 78:	$\varphi_{36,1}$	$\varphi_{37,1}$	$\varphi_{47,3}$
$20_6 = \chi_{40,1}$	1	.	.
$120_6 = \chi_{41,1}$	.	1	.
$540_8 = \chi_{51,3}$	1	.	1
$640_{19} = \chi_{52,2}$	.	1	1
$640_{27} = \chi_{53,2}$	.	1	1

$$\begin{aligned} \varphi_{36,1} &= 20_6 \\ \varphi_{37,1} &= 120_6 \\ \varphi_{47,3} &= 520_8 \end{aligned}$$

Blocks 73, 77:	$\varphi_{36,2}$	$\varphi_{37,2}$	$\varphi_{47,0}$
$20_7 = \chi_{40,2}$	1	.	.
$120_7 = \chi_{41,2}$	.	1	.
$540_5 = \chi_{51,0}$	1	.	1
$640_{20} = \chi_{52,3}$	.	1	1
$640_{28} = \chi_{53,3}$	.	1	1

$$\begin{aligned} \varphi_{36,2} &= 20_7 \\ \varphi_{37,2} &= 120_7 \\ \varphi_{47,0} &= 520_5 \end{aligned}$$

Blocks 74, 76:	$\varphi_{36,3}$	$\varphi_{37,3}$	$\varphi_{47,1}$
$20_8 = \chi_{40,3}$	1	.	.
$120_8 = \chi_{41,3}$	.	1	.
$540_6 = \chi_{51,1}$	1	.	1
$640_{17} = \chi_{52,0}$	.	1	1
$640_{25} = \chi_{53,0}$	.	1	1

$$\begin{aligned} \varphi_{36,3} &= 20_8 \\ \varphi_{37,3} &= 120_8 \\ \varphi_{47,1} &= 520_6 \end{aligned}$$