

$U_4(3) \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	5×3
	2	0	$21_1 = \chi_2, \varphi_2$
	3	0	$35_1 = \chi_3, \varphi_3$
	4	0	$35_2 = \chi_4, \varphi_4$
	5	0	$140_1 = \chi_6, \varphi_6$
	6	0	$189_1 = \chi_7, \varphi_7$
	7	0	$210_1 = \chi_8, \varphi_8$
	8	0	$280_1 = \chi_9, \varphi_9$
	$9 = \overline{8}$	0	$280_2 = \chi_{10}, \varphi_{10}$
	10	0	$280_3 = \chi_{11}, \varphi_{11}$
	$11 = \overline{10}$	0	$280_4 = \chi_{12}, \varphi_{12}$
	12	0	$315_1 = \chi_{13}, \varphi_{13}$
	13	0	$315_2 = \chi_{14}, \varphi_{14}$
	14	0	$420_1 = \chi_{15}, \varphi_{15}$
	15	0	$560_1 = \chi_{16}, \varphi_{16}$
	16	0	$896_1 = \chi_{20}, \varphi_{18}$
$2.G :$	17	1	5×3
	18	0	$56_1 = \chi_{22}, \varphi_{20}$
	19	0	$56_2 = \chi_{23}, \varphi_{21}$
	20	0	$70_1 = \chi_{24}, \varphi_{22}$
	21	0	$70_2 = \chi_{25}, \varphi_{23}$
	$22 = \overline{21}$	0	$70_3 = \chi_{26}, \varphi_{24}$
	23	0	$70_4 = \chi_{27}, \varphi_{25}$
	$24 = \overline{23}$	0	$70_5 = \chi_{28}, \varphi_{26}$
	25	0	$210_2 = \chi_{30}, \varphi_{28}$
	$26 = \overline{25}$	0	$210_3 = \chi_{31}, \varphi_{29}$
	27	0	$504_1 = \chi_{32}, \varphi_{30}$
	28	0	$504_2 = \chi_{33}, \varphi_{31}$
	29	0	$560_2 = \chi_{35}, \varphi_{33}$
	30	0	$630_1 = \chi_{36}, \varphi_{34}$
	31	0	$896_2 = \chi_{39}, \varphi_{35}$
$4.G :$	32	1	5×3
	$33 = 32^*$	0	
	34	0	$140_2 = \chi_{42}, \varphi_{38}$
	$35 = 34^*$	0	
	36	0	$224_1 = \chi_{43}, \varphi_{39}$
	$37 = 36^*$	0	
	$38 = \overline{37}$	0	$224_3 = \chi_{44}, \varphi_{40}$
	$39 = 38^*$	0	
	40	0	$224_5 = \chi_{45}, \varphi_{41}$

	blocks	defect	matrix
	$41 = 40^*$		
	$42 = \overline{41}$	0	$224_7 = \chi_{46}, \varphi_{42}$
	$43 = 42^*$		
	44	0	$280_5 = \chi_{47}, \varphi_{43}$
	$45 = 44^*$		
	46	0	$280_7 = \chi_{48}, \varphi_{44}$
	$47 = 46^*$		
	48	0	$280_9 = \chi_{49}, \varphi_{45}$
	$49 = 48^*$		
	50	0	$420_2 = \chi_{50}, \varphi_{46}$
	$51 = 50^*$		
	52	0	$840_1 = \chi_{54}, \varphi_{48}$
	$53 = 52^*$		
	54	0	$896_3 = \chi_{55}, \varphi_{49}$
	$55 = 54^*$		
$3_1.G :$	56	1	5×3
	$57 = 56^*$		
	58	0	$21_2 = \chi_{57}, \varphi_{51}$
	$59 = 58^*$		
	60	0	$105_1 = \chi_{58}, \varphi_{52}$
	$61 = 60^*$		
	62	0	$105_3 = \chi_{59}, \varphi_{53}$
	$63 = 62^*$		
	64	0	$105_5 = \chi_{60}, \varphi_{54}$
	$65 = 64^*$		
	66	0	$210_4 = \chi_{61}, \varphi_{55}$
	$67 = 66^*$		
	68	0	$315_3 = \chi_{62}, \varphi_{56}$
	$69 = 68^*$		
	70	0	$336_1 = \chi_{63}, \varphi_{57}$
	$71 = 70^*$		
	72	0	$420_4 = \chi_{67}, \varphi_{60}$
	$73 = 72^*$		
	74	0	$630_2 = \chi_{68}, \varphi_{61}$
$6_1.G :$	$75 = 74^*$		
	76	0	$756_1 = \chi_{70}, \varphi_{62}$
	$77 = 76^*$		
	78	0	$945_1 = \chi_{71}, \varphi_{63}$
	$79 = 78^*$		
	80	1	5×3

	blocks	defect	matrix
	81 = 80*		
	82	0	$84_1 = \chi_{73}, \varphi_{65}$
	83 = 82*		
	84	0	$126_1 = \chi_{75}, \varphi_{67}$
	85 = 84*		
	86	0	$210_6 = \chi_{76}, \varphi_{68}$
	87 = 86*		
	88	0	$336_3 = \chi_{79}, \varphi_{70}$
	89 = 88*		
	90	0	$420_6 = \chi_{81}, \varphi_{71}$
	91 = 90*		
	92	0	$630_4 = \chi_{82}, \varphi_{72}$
	93 = 92*		
	94	0	$630_6 = \chi_{83}, \varphi_{73}$
	95 = 94*		
	96 = $\overline{95}$	0	$630_8 = \chi_{84}, \varphi_{74}$
	97 = 96*		
	98	0	$840_3 = \chi_{85}, \varphi_{75}$
	99 = 98*		
	100	0	$840_5 = \chi_{86}, \varphi_{76}$
	101 = 100*		
12 ₁ .G :	102	0	$84_3 = \chi_{87}, \varphi_{77}$
	103 = 102 * 5		
	104 = 102 * 7		
	105 = 102 * 11		
	106	1	5×3
	107 = 106 * 5		
	108 = 106 * 7		
	109 = 106 * 11		
	110	0	$420_8 = \chi_{91}, \varphi_{81}$
	111 = 110 * 5		
	112 = 110 * 7		
	113 = 110 * 11		
	114	0	$420_{12} = \chi_{92}, \varphi_{82}$
	115 = 114 * 5		
	116 = 114 * 7		
	117 = 114 * 11		
	118	0	$504_3 = \chi_{95}, \varphi_{83}$
	119 = 118 * 5		
	120 = 118 * 7		

	blocks	defect	matrix
	$121 = 118 * 11$ 122 $123 = 122 * 5$ $124 = 122 * 7$ $125 = 122 * 11$ 126 $127 = 126 * 5$ $128 = 126 * 7$ $129 = 126 * 11$ 130 $131 = 130 * 5$ $132 = 130 * 7$ $133 = 130 * 11$	0 0 0	$756_3 = \chi_{96}, \varphi_{84}$ $840_7 = \chi_{97}, \varphi_{85}$ $840_{11} = \chi_{98}, \varphi_{86}$
$3_2.G :$	134 $135 = 134*$ 136 $137 = 136*$ 138 $139 = 138*$ 140 $141 = 140*$ 142 $143 = 142*$ 144 $145 = 144*$ 146 $147 = 146*$ 148 $149 = 148*$ 150 $151 = 150*$	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5×3 $126_1 = \chi_{102}, \varphi_{89}$ $189_2 = \chi_{103}, \varphi_{90}$ $315_3 = \chi_{104}, \varphi_{91}$ $315_5 = \chi_{105}, \varphi_{92}$ $315_7 = \chi_{106}, \varphi_{93}$ $630_2 = \chi_{107}, \varphi_{94}$ $756_1 = \chi_{110}, \varphi_{96}$ $945_1 = \chi_{111}, \varphi_{97}$
$6_2.G :$	152 $153 = 152*$ 154 $155 = 154*$ 156 $157 = 156*$ 158 $159 = 158*$ $160 = \overline{159}$	1 0 0 0 0 0 0	5×3 $126_3 = \chi_{113}, \varphi_{99}$ $126_5 = \chi_{114}, \varphi_{100}$ $126_7 = \chi_{115}, \varphi_{101}$ $126_9 = \chi_{116}, \varphi_{102}$

	blocks	defect	matrix
	$161 = 160*$ 162 $163 = 162*$ 164 $165 = 164*$ 166 $167 = 166*$	 0 0 0	 $504_3 = \chi_{119}, \varphi_{105}$ $630_4 = \chi_{121}, \varphi_{106}$ $1260_1 = \chi_{123}, \varphi_{107}$
$12_2.G :$	168 $169 = 168 * 5$ $170 = 168 * 7$ $171 = 168 * 11$ 172 $173 = 172 * 5$ $174 = 172 * 7$ $175 = 172 * 11$ 176 $177 = 176 * 5$ $178 = 176 * 7$ $179 = 176 * 11$ 180 $181 = 180 * 5$ $182 = 180 * 7$ $183 = 180 * 11$ 184 $185 = 184 * 5$ $186 = 184 * 7$ $187 = 184 * 11$	 1 0 0 0 0	 5×3 $504_5 = \chi_{128}, \varphi_{111}$ $504_9 = \chi_{129}, \varphi_{112}$ $756_3 = \chi_{131}, \varphi_{113}$ $1260_3 = \chi_{132}, \varphi_{114}$

Block 1:	φ_1	φ_5	φ_{17}	
$1_1 = \chi_1$	1	.	.	$\varphi_1 = 1_1$
$90_1 = \chi_5$	1	1	.	$\varphi_5 = 89_1$
$640_1 = \chi_{17}$	.	.	1	$\varphi_{17} = 640_1$
$640_2 = \chi_{18}$	.	.	1	
$729_1 = \chi_{19}$	.	1	1	

Block 17:	φ_{19}	φ_{27}	φ_{32}	
$20_1 = \chi_{21}$	1	.	.	$\varphi_{19} = 20_1$
$120_1 = \chi_{29}$	.	1	.	$\varphi_{27} = 120_1$
$540_1 = \chi_{34}$	1	.	1	$\varphi_{32} = 520_1$
$640_3 = \chi_{37}$	.	1	1	
$640_4 = \chi_{38}$	.	1	1	

Blocks 32, 33:	φ_{36}	φ_{37}	φ_{47}	
$20_2 = \chi_{40}$	1	.	.	$\varphi_{36} = 20_2$
$120_2 = \chi_{41}$	.	1	.	$\varphi_{37} = 120_2$
$540_2 = \chi_{51}$	1	.	1	$\varphi_{47} = 520_2$
$640_5 = \chi_{52}$	.	1	1	
$640_7 = \chi_{53}$	.	1	1	

Blocks 56, 57:	φ_{50}	φ_{58}	φ_{59}	
$15_1 = \chi_{56}$	1	.	.	$\varphi_{50} = 15_1$
$360_1 = \chi_{64}$	.	1	.	$\varphi_{58} = 360_1$
$360_3 = \chi_{65}$	.	1	.	$\varphi_{59} = 369_1$
$384_1 = \chi_{66}$	1	.	1	
$729_2 = \chi_{69}$	.	1	1	

Blocks 80, 81:	φ_{64}	φ_{66}	φ_{69}	
$6_1 = \chi_{72}$	1	.	.	$\varphi_{64} = 6_1$
$120_4 = \chi_{74}$	1	1	.	$\varphi_{66} = 114_1$
$270_1 = \chi_{77}$	.	.	1	$\varphi_{69} = 270_1$
$270_3 = \chi_{78}$	.	.	1	
$384_3 = \chi_{80}$	.	1	1	

Blocks 106, 107, 108, 109:	φ_{78}	φ_{79}	φ_{80}	
$120_6 = \chi_{88}$	1	.	.	$\varphi_{78} = 120_4$
$216_1 = \chi_{89}$	.	1	.	$\varphi_{79} = 216_1$
$384_5 = \chi_{90}$	1	.	1	$\varphi_{80} = 264_1$
$480_1 = \chi_{93}$	.	1	1	
$480_5 = \chi_{94}$	.	1	1	

Blocks 134, 135:	φ_{87}	φ_{88}	φ_{95}	
$36_1 = \chi_{99}$	1	.	.	$\varphi_{87} = 36_1$
$45_1 = \chi_{100}$	.	1	.	$\varphi_{88} = 45_1$
$45_3 = \chi_{101}$	.	1	.	$\varphi_{95} = 684_1$
$720_1 = \chi_{108}$	1	.	1	
$729_2 = \chi_{109}$	.	1	1	

Blocks 152, 153:	φ_{98}	φ_{103}	φ_{104}	
$90_2 = \chi_{112}$	1	.	.	$\varphi_{98} = 90_1$
$270_1 = \chi_{117}$	.	1	.	$\varphi_{103} = 270_1$
$270_3 = \chi_{118}$	.	1	.	$\varphi_{104} = 450_1$
$540_4 = \chi_{120}$	1	.	1	
$720_3 = \chi_{122}$	.	1	1	

Blocks 168, 169, 170, 171:	φ_{108}	φ_{109}	φ_{110}	
$36_3 = \chi_{124}$	1	.	.	$\varphi_{108} = 36_3$
$216_1 = \chi_{125}$	.	1	.	$\varphi_{109} = 216_1$
$360_1 = \chi_{126}$	1	.	1	$\varphi_{110} = 324_1$
$360_5 = \chi_{127}$	1	.	1	
$540_6 = \chi_{130}$	.	1	1	