

$U_4(3) \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	0	$35_1 = \chi_3, \varphi_3$
	3	0	$35_2 = \chi_4, \varphi_4$
	4	0	$90_1 = \chi_5, \varphi_5$
	5	0	$140_1 = \chi_6, \varphi_6$
	6	0	$210_1 = \chi_8, \varphi_8$
	7	0	$280_1 = \chi_9, \varphi_9$
	$8 = \overline{7}$	0	$280_2 = \chi_{10}, \varphi_{10}$
	9	0	$280_3 = \chi_{11}, \varphi_{11}$
	$10 = \overline{9}$	0	$280_4 = \chi_{12}, \varphi_{12}$
	11	0	$315_1 = \chi_{13}, \varphi_{13}$
	12	0	$315_2 = \chi_{14}, \varphi_{14}$
	13	0	$420_1 = \chi_{15}, \varphi_{15}$
	14	0	$560_1 = \chi_{16}, \varphi_{16}$
	15	0	$640_1 = \chi_{17}, \varphi_{17}$
	$16 = \overline{15}$	0	$640_2 = \chi_{18}, \varphi_{18}$
$2.G :$	17	0	$20_1 = \chi_{21}, \varphi_{20}$
	18	1	5×4
	19	0	$70_1 = \chi_{24}, \varphi_{23}$
	20	0	$70_2 = \chi_{25}, \varphi_{24}$
	$21 = \overline{20}$	0	$70_3 = \chi_{26}, \varphi_{25}$
	22	0	$70_4 = \chi_{27}, \varphi_{26}$
	$23 = \overline{22}$	0	$70_5 = \chi_{28}, \varphi_{27}$
	24	0	$120_1 = \chi_{29}, \varphi_{28}$
	25	0	$210_2 = \chi_{30}, \varphi_{29}$
	$26 = \overline{25}$	0	$210_3 = \chi_{31}, \varphi_{30}$
	27	0	$540_1 = \chi_{34}, \varphi_{33}$
	28	0	$560_2 = \chi_{35}, \varphi_{34}$
	29	0	$630_1 = \chi_{36}, \varphi_{35}$
	30	0	$640_3 = \chi_{37}, \varphi_{36}$
	$31 = \overline{30}$	0	$640_4 = \chi_{38}, \varphi_{37}$
$4.G :$	32	0	$20_2 = \chi_{40}, \varphi_{38}$
	$33 = 32^*$	0	
	34	0	$120_2 = \chi_{41}, \varphi_{39}$
	$35 = 34^*$	0	
	36	0	$140_2 = \chi_{42}, \varphi_{40}$
	$37 = 36^*$	0	
	38	1	5×4
	$39 = 38^*$	0	
	40	0	$280_5 = \chi_{47}, \varphi_{45}$

	blocks	defect	matrix
	$41 = 40^*$		
	42	0	$280_7 = \chi_{48}, \varphi_{46}$
	$43 = 42^*$		
	44	0	$280_9 = \chi_{49}, \varphi_{47}$
	$45 = 44^*$		
	46	0	$420_2 = \chi_{50}, \varphi_{48}$
	$47 = 46^*$		
	48	0	$540_2 = \chi_{51}, \varphi_{49}$
	$49 = 48^*$		
	50	0	$640_5 = \chi_{52}, \varphi_{50}$
	$51 = 50^*$		
	$52 = \overline{51}$	0	$640_7 = \chi_{53}, \varphi_{51}$
	$53 = 52^*$		
	54	0	$840_1 = \chi_{54}, \varphi_{52}$
	$55 = 54^*$		
$3_1.G :$	56	0	$15_1 = \chi_{56}, \varphi_{53}$
	$57 = 56^*$		
	58	1	5×4
	$59 = 58^*$		
	60	0	$105_1 = \chi_{58}, \varphi_{55}$
	$61 = 60^*$		
	62	0	$105_3 = \chi_{59}, \varphi_{56}$
	$63 = 62^*$		
	64	0	$105_5 = \chi_{60}, \varphi_{57}$
	$65 = 64^*$		
	66	0	$210_4 = \chi_{61}, \varphi_{58}$
	$67 = 66^*$		
	68	0	$315_3 = \chi_{62}, \varphi_{59}$
	$69 = 68^*$		
	70	0	$360_1 = \chi_{64}, \varphi_{61}$
	$71 = 70^*$		
	$72 = \overline{71}$	0	$360_3 = \chi_{65}, \varphi_{62}$
	$73 = 72^*$		
	74	0	$420_4 = \chi_{67}, \varphi_{65}$
	$75 = 74^*$		
	76	0	$630_2 = \chi_{68}, \varphi_{66}$
	$77 = 76^*$		
	78	0	$945_1 = \chi_{71}, \varphi_{67}$
	$79 = 78^*$		
$6_1.G :$	80	1	5×4

	blocks	defect	matrix
	81 = 80*		
	82	0	$120_4 = \chi_{74}, \varphi_{70}$
	83 = 82*		
	84	0	$210_6 = \chi_{76}, \varphi_{72}$
	85 = 84*		
	86	0	$270_1 = \chi_{77}, \varphi_{74}$
	87 = 86*		
	88 = 87	0	$270_3 = \chi_{78}, \varphi_{75}$
	89 = 88*		
	90	0	$420_6 = \chi_{81}, \varphi_{76}$
	91 = 90*		
	92	0	$630_4 = \chi_{82}, \varphi_{77}$
	93 = 92*		
	94	0	$630_6 = \chi_{83}, \varphi_{78}$
	95 = 94*		
	96 = 95	0	$630_8 = \chi_{84}, \varphi_{79}$
	97 = 96*		
	98	0	$840_3 = \chi_{85}, \varphi_{80}$
	99 = 98*		
	100	0	$840_5 = \chi_{86}, \varphi_{81}$
	101 = 100*		
12 ₁ .G :	102	1	5×4
	103 = 102 * 5		
	104 = 102 * 7		
	105 = 102 * 11		
	106	0	$120_6 = \chi_{88}, \varphi_{83}$
	107 = 106 * 5		
	108 = 106 * 7		
	109 = 106 * 11		
	110	0	$420_8 = \chi_{91}, \varphi_{87}$
	111 = 110 * 5		
	112 = 110 * 7		
	113 = 110 * 11		
	114	0	$420_{12} = \chi_{92}, \varphi_{88}$
	115 = 114 * 5		
	116 = 114 * 7		
	117 = 114 * 11		
	118	0	$480_1 = \chi_{93}, \varphi_{89}$
	119 = 118 * 5		
	120 = 118 * 7		

	blocks	defect	matrix
	$121 = 118 * 11$ $122 = \overline{121}$ $123 = 122 * 5$ $124 = 122 * 7$ $125 = 122 * 11$ 126 $127 = 126 * 5$ $128 = 126 * 7$ $129 = 126 * 11$ 130 $131 = 130 * 5$ $132 = 130 * 7$ $133 = 130 * 11$	0 0 0 	$480_5 = \chi_{94}, \varphi_{90}$ $840_7 = \chi_{97}, \varphi_{91}$ $840_{11} = \chi_{98}, \varphi_{92}$
$3_2.G :$	134 $135 = 134*$ 136 $137 = 136*$ $138 = \overline{137}$ $139 = 138*$ 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 	5×4 $45_1 = \chi_{100}, \varphi_{94}$ $45_3 = \chi_{101}, \varphi_{95}$ $315_3 = \chi_{104}, \varphi_{98}$ $315_5 = \chi_{105}, \varphi_{99}$ $315_7 = \chi_{106}, \varphi_{100}$ $630_2 = \chi_{107}, \varphi_{102}$ $720_1 = \chi_{108}, \varphi_{103}$ $945_1 = \chi_{111}, \varphi_{104}$
$6_2.G :$	152 $153 = 152*$ 154 $155 = 154*$ 156 $157 = 156*$ $158 = \overline{157}$ $159 = 158*$ 160	0 1 0 0 0 0 	$90_2 = \chi_{112}, \varphi_{105}$ 5×4 $270_1 = \chi_{117}, \varphi_{110}$ $270_3 = \chi_{118}, \varphi_{111}$ $540_4 = \chi_{120}, \varphi_{112}$

	blocks	defect	matrix
	$161 = 160*$ 162 $163 = 162*$ 164 $165 = 164*$ 166 $167 = 166*$	 0 0 0	 $630_4 = \chi_{121}, \varphi_{113}$ $720_3 = \chi_{122}, \varphi_{114}$ $1260_1 = \chi_{123}, \varphi_{115}$
$12_2.G :$	168 $169 = 168 * 5$ $170 = 168 * 7$ $171 = 168 * 11$ 172 $173 = 172 * 5$ $174 = 172 * 7$ $175 = 172 * 11$ $176 = \overline{175}$ $177 = 176 * 5$ $178 = 176 * 7$ $179 = 176 * 11$ 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	 5×4 $360_1 = \chi_{126}, \varphi_{119}$ $360_5 = \chi_{127}, \varphi_{120}$ $540_6 = \chi_{130}, \varphi_{122}$ $1260_3 = \chi_{132}, \varphi_{123}$

Block 1:	φ_1	φ_2	φ_7	φ_{19}	
$1_1 = \chi_1$	1	.	.	.	$\varphi_1 = 1_1$
$21_1 = \chi_2$	.	1	.	.	$\varphi_2 = 21_1$
$189_1 = \chi_7$	1	.	1	.	$\varphi_7 = 188_1$
$729_1 = \chi_{19}$	.	1	.	1	$\varphi_{19} = 708_1$
$896_1 = \chi_{20}$	.	.	1	1	

Block 18:	φ_{21}	φ_{22}	φ_{31}	φ_{32}
$56_1 = \chi_{22}$	1	.	.	.
$56_2 = \chi_{23}$	.	1	.	.
$504_1 = \chi_{32}$	1	.	1	.
$504_2 = \chi_{33}$	.	1	.	1
$896_2 = \chi_{39}$	.	.	1	1

$$\begin{aligned}
\varphi_{21} &= 56_1 \\
\varphi_{22} &= 56_2 \\
\varphi_{31} &= 448_1 \\
\varphi_{32} &= 448_2
\end{aligned}$$

Blocks 38, 39:	φ_{41}	φ_{42}	φ_{43}	φ_{44}
$224_1 = \chi_{43}$	1	.	.	.
$224_3 = \chi_{44}$	.	1	.	.
$224_5 = \chi_{45}$	.	.	1	.
$224_7 = \chi_{46}$	.	.	.	1
$896_3 = \chi_{55}$	1	1	1	1

$$\begin{aligned}
\varphi_{41} &= 224_1 \\
\varphi_{42} &= 224_3 \\
\varphi_{43} &= 224_5 \\
\varphi_{44} &= 224_7
\end{aligned}$$

Blocks 58, 59:	φ_{54}	φ_{60}	φ_{63}	φ_{64}
$21_2 = \chi_{57}$	1	.	.	.
$336_1 = \chi_{63}$	.	1	.	.
$384_1 = \chi_{66}$	1	.	1	.
$729_2 = \chi_{69}$	.	1	.	1
$756_1 = \chi_{70}$	.	.	1	1

$$\begin{aligned}
\varphi_{54} &= 21_2 \\
\varphi_{60} &= 336_1 \\
\varphi_{63} &= 363_1 \\
\varphi_{64} &= 393_1
\end{aligned}$$

Blocks 80, 81:	φ_{68}	φ_{69}	φ_{71}	φ_{73}
$6_1 = \chi_{72}$	1	.	.	.
$84_1 = \chi_{73}$	1	1	.	.
$126_1 = \chi_{75}$	.	.	1	.
$336_3 = \chi_{79}$	.	1	.	1
$384_3 = \chi_{80}$	.	.	1	1

$$\begin{aligned}
\varphi_{68} &= 6_1 \\
\varphi_{69} &= 78_1 \\
\varphi_{71} &= 126_1 \\
\varphi_{73} &= 258_1
\end{aligned}$$

Blocks 102, 103, 104, 105:	φ_{82}	φ_{84}	φ_{85}	φ_{86}
$84_3 = \chi_{87}$	1	.	.	.
$216_1 = \chi_{89}$	1	1	.	.
$384_5 = \chi_{90}$	.	.	.	1
$504_3 = \chi_{95}$	.	1	1	.
$756_3 = \chi_{96}$	.	.	1	1

$$\begin{aligned}
\varphi_{82} &= 84_1 \\
\varphi_{84} &= 132_1 \\
\varphi_{85} &= 372_1 \\
\varphi_{86} &= 384_1
\end{aligned}$$

Blocks 134, 135:	φ_{93}	φ_{96}	φ_{97}	φ_{101}
$36_1 = \chi_{99}$	1	.	.	.
$126_1 = \chi_{102}$	.	1	.	.
$189_2 = \chi_{103}$	1	.	1	.
$729_2 = \chi_{109}$	.	1	.	1
$756_1 = \chi_{110}$	.	.	1	1

$$\begin{aligned}
\varphi_{93} &= 36_1 \\
\varphi_{96} &= 126_1 \\
\varphi_{97} &= 153_1 \\
\varphi_{101} &= 603_1
\end{aligned}$$

Blocks 154, 155:	φ_{106}	φ_{107}	φ_{108}	φ_{109}
$126_3 = \chi_{113}$	1	.	.	.
$126_5 = \chi_{114}$	.	1	.	.
$126_7 = \chi_{115}$	.	.	1	.
$126_9 = \chi_{116}$	.	.	.	1
$504_3 = \chi_{119}$	1	1	1	1

$$\begin{aligned}
\varphi_{106} &= 126_3 \\
\varphi_{107} &= 126_5 \\
\varphi_{108} &= 126_7 \\
\varphi_{109} &= 126_9
\end{aligned}$$

Blocks 168, 169, 170, 171:	φ_{116}	φ_{117}	φ_{118}	φ_{121}
$36_3 = \chi_{124}$	1	.	.	.
$216_1 = \chi_{125}$	.	1	.	.
$504_5 = \chi_{128}$	.	1	1	.
$504_9 = \chi_{129}$	1	.	.	1
$756_3 = \chi_{131}$	.	.	1	1

$$\begin{aligned}
\varphi_{116} &= 36_3 \\
\varphi_{117} &= 216_1 \\
\varphi_{118} &= 288_1 \\
\varphi_{121} &= 468_1
\end{aligned}$$