

## $U_6(2).3 \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	$7 \times 6$
	2	1	$7 \times 6$
	$3 = \overline{2}$	1	$7 \times 6$
	4	0	$231_1 = \chi_{3,0}, \varphi_{3,0}$
	5	0	$231_2 = \chi_{3,1}, \varphi_{3,1}$
	$6 = \overline{5}$	0	$231_3 = \chi_{3,2}, \varphi_{3,2}$
	7	0	$252_1 = \chi_{4,0}, \varphi_{4,0}$
	8	0	$252_2 = \chi_{4,1}, \varphi_{4,1}$
	$9 = \overline{8}$	0	$252_3 = \chi_{4,2}, \varphi_{4,2}$
	10	0	$385_1 = \chi_{5,0}, \varphi_{5,0}$
	11	0	$385_2 = \chi_{5,1}, \varphi_{5,1}$
	$12 = \overline{11}$	0	$385_3 = \chi_{5,2}, \varphi_{5,2}$
	13	0	$560_1 = \chi_{7,0}, \varphi_{7,0}$
	14	0	$560_2 = \chi_{7,1}, \varphi_{7,1}$
	$15 = \overline{14}$	0	$560_3 = \chi_{7,2}, \varphi_{7,2}$
	16	0	$616_1 = \chi_{8,0}, \varphi_{8,0}$
	17	0	$616_2 = \chi_{8,1}, \varphi_{8,1}$
	$18 = \overline{17}$	0	$616_3 = \chi_{8,2}, \varphi_{8,2}$
	19	0	$770_1 = \chi_{9,0}, \varphi_{9,0}$
	20	0	$770_2 = \chi_{9,1}, \varphi_{9,1}$
	21	0	$770_3 = \chi_{9,2}, \varphi_{9,2}$
	$22 = \overline{19}$	0	$770_4 = \chi_{10,0}, \varphi_{10,0}$
	$23 = \overline{21}$	0	$770_5 = \chi_{10,1}, \varphi_{10,1}$
	$24 = \overline{20}$	0	$770_6 = \chi_{10,2}, \varphi_{10,2}$
	25	0	$3465_1 = \chi_{11+}, \varphi_{11+}$
	26	0	$1386_1 = \chi_{14,0}, \varphi_{14,0}$
	27	0	$1386_2 = \chi_{14,1}, \varphi_{14,1}$
	$28 = \overline{27}$	0	$1386_3 = \chi_{14,2}, \varphi_{14,2}$
	29	0	$1540_1 = \chi_{15,0}, \varphi_{15,0}$
	30	0	$1540_2 = \chi_{15,1}, \varphi_{15,1}$
	$31 = \overline{30}$	0	$1540_3 = \chi_{15,2}, \varphi_{15,2}$
	32	0	$3080_1 = \chi_{16,0}, \varphi_{16,0}$
	33	0	$3080_2 = \chi_{16,1}, \varphi_{16,1}$
	34	0	$3080_3 = \chi_{16,2}, \varphi_{16,2}$
	$35 = \overline{32}$	0	$3080_4 = \chi_{17,0}, \varphi_{17,0}$
	$36 = \overline{34}$	0	$3080_5 = \chi_{17,1}, \varphi_{17,1}$
	$37 = \overline{33}$	0	$3080_6 = \chi_{17,2}, \varphi_{17,2}$
	38	0	$4620_1 = \chi_{19,0}, \varphi_{19,0}$
	39	0	$4620_2 = \chi_{19,1}, \varphi_{19,1}$
	$40 = \overline{39}$	0	$4620_3 = \chi_{19,2}, \varphi_{19,2}$

	blocks	defect	matrix
	41	0	$4928_1 = \chi_{20,0}, \varphi_{20,0}$
	42	0	$4928_2 = \chi_{20,1}, \varphi_{20,1}$
	$43 = \overline{42}$	0	$4928_3 = \chi_{20,2}, \varphi_{20,2}$
	44	0	$5544_1 = \chi_{21,0}, \varphi_{21,0}$
	45	0	$5544_2 = \chi_{21,1}, \varphi_{21,1}$
	$46 = \overline{45}$	0	$5544_3 = \chi_{21,2}, \varphi_{21,2}$
	47	0	$6160_1 = \chi_{22,0}, \varphi_{22,0}$
	48	0	$6160_2 = \chi_{22,1}, \varphi_{22,1}$
	49	0	$6160_3 = \chi_{22,2}, \varphi_{22,2}$
	$50 = \overline{47}$	0	$6160_4 = \chi_{23,0}, \varphi_{23,0}$
	$51 = \overline{49}$	0	$6160_5 = \chi_{23,1}, \varphi_{23,1}$
	$52 = \overline{48}$	0	$6160_6 = \chi_{23,2}, \varphi_{23,2}$
	53	0	$6930_1 = \chi_{24,0}, \varphi_{24,0}$
	54	0	$6930_2 = \chi_{24,1}, \varphi_{24,1}$
	$55 = \overline{54}$	0	$6930_3 = \chi_{24,2}, \varphi_{24,2}$
	56	0	$8064_1 = \chi_{25,0}, \varphi_{25,0}$
	57	0	$8064_2 = \chi_{25,1}, \varphi_{25,1}$
	$58 = \overline{57}$	0	$8064_3 = \chi_{25,2}, \varphi_{25,2}$
	59	0	$27720_1 = \chi_{26+}, \varphi_{26+}$
	60	0	$10395_1 = \chi_{29,0}, \varphi_{29,0}$
	61	0	$10395_2 = \chi_{29,1}, \varphi_{29,1}$
	62	0	$10395_3 = \chi_{29,2}, \varphi_{29,2}$
	$63 = \overline{60}$	0	$10395_4 = \chi_{30,0}, \varphi_{30,0}$
	$64 = \overline{62}$	0	$10395_5 = \chi_{30,1}, \varphi_{30,1}$
	$65 = \overline{61}$	0	$10395_6 = \chi_{30,2}, \varphi_{30,2}$
	66	0	$31185_1 = \chi_{31+}, \varphi_{31+}$
	67	0	$13860_1 = \chi_{35,0}, \varphi_{35,0}$
	68	0	$13860_2 = \chi_{35,1}, \varphi_{35,1}$
	$69 = \overline{68}$	0	$13860_3 = \chi_{35,2}, \varphi_{35,2}$
	70	0	$14784_1 = \chi_{36,0}, \varphi_{36,0}$
	71	0	$14784_2 = \chi_{36,1}, \varphi_{36,1}$
	$72 = \overline{71}$	0	$14784_3 = \chi_{36,2}, \varphi_{36,2}$
	73	0	$18711_1 = \chi_{37,0}, \varphi_{37,0}$
	74	0	$18711_2 = \chi_{37,1}, \varphi_{37,1}$
	$75 = \overline{74}$	0	$18711_3 = \chi_{37,2}, \varphi_{37,2}$
	76	0	$18711_4 = \chi_{38,0}, \varphi_{38,0}$
	77	0	$18711_5 = \chi_{38,1}, \varphi_{38,1}$
	$78 = \overline{77}$	0	$18711_6 = \chi_{38,2}, \varphi_{38,2}$
	79	0	$20790_1 = \chi_{39,0}, \varphi_{39,0}$
	80	0	$20790_2 = \chi_{39,1}, \varphi_{39,1}$

	blocks	defect	matrix
	81	0	$20790_3 = \chi_{39,2}, \varphi_{39,2}$
	$82 = \overline{79}$	0	$20790_4 = \chi_{40,0}, \varphi_{40,0}$
	$83 = \overline{81}$	0	$20790_5 = \chi_{40,1}, \varphi_{40,1}$
	$84 = \overline{80}$	0	$20790_6 = \chi_{40,2}, \varphi_{40,2}$
	85	0	$24640_1 = \chi_{41,0}, \varphi_{41,0}$
	86	0	$24640_2 = \chi_{41,1}, \varphi_{41,1}$
	$87 = \overline{86}$	0	$24640_3 = \chi_{41,2}, \varphi_{41,2}$
	88	0	$25515_1 = \chi_{42,0}, \varphi_{42,0}$
	89	0	$25515_2 = \chi_{42,1}, \varphi_{42,1}$
	90	0	$25515_3 = \chi_{42,2}, \varphi_{42,2}$
	$91 = \overline{88}$	0	$25515_4 = \chi_{43,0}, \varphi_{43,0}$
	$92 = \overline{90}$	0	$25515_5 = \chi_{43,1}, \varphi_{43,1}$
	$93 = \overline{89}$	0	$25515_6 = \chi_{43,2}, \varphi_{43,2}$
	94	0	$37422_1 = \chi_{45,0}, \varphi_{45,0}$
	95	0	$37422_2 = \chi_{45,1}, \varphi_{45,1}$
	$96 = \overline{95}$	0	$37422_3 = \chi_{45,2}, \varphi_{45,2}$
3.G :	97	0	$21_1 = \chi_{47,0}, \varphi_{46,0}$
	98	0	$21_2 = \chi_{47,1}, \varphi_{46,1}$
	99	0	$21_3 = \chi_{47,2}, \varphi_{46,2}$
	$100 = 97^*$		
	$101 = 99^*$		
	$102 = 98^*$		
	103	0	$210_1 = \chi_{48,0}, \varphi_{47,0}$
	104	0	$210_2 = \chi_{48,1}, \varphi_{47,1}$
	105	0	$210_3 = \chi_{48,2}, \varphi_{47,2}$
	$106 = 103^*$		
	$107 = 105^*$		
	$108 = 104^*$		
	109	0	$231_4 = \chi_{49,0}, \varphi_{48,0}$
	110	0	$231_5 = \chi_{49,1}, \varphi_{48,1}$
	111	0	$231_6 = \chi_{49,2}, \varphi_{48,2}$
	$112 = 109^*$		
	$113 = 111^*$		
	$114 = 110^*$		
	115	0	$462_1 = \chi_{50,0}, \varphi_{49,0}$
	116	0	$462_2 = \chi_{50,1}, \varphi_{49,1}$
	117	0	$462_3 = \chi_{50,2}, \varphi_{49,2}$
	$118 = 115^*$		
	$119 = 117^*$		
	$120 = 116^*$		

	blocks	defect	matrix
	121	0	$924_1 = \chi_{51,0}, \varphi_{50,0}$
	122	0	$924_2 = \chi_{51,1}, \varphi_{50,1}$
	123	0	$924_3 = \chi_{51,2}, \varphi_{50,2}$
	124 = 121*		
	125 = 123*		
	126 = 122*		
	127	0	$1155_1 = \chi_{52,0}, \varphi_{51,0}$
	128	0	$1155_2 = \chi_{52,1}, \varphi_{51,1}$
	129	0	$1155_3 = \chi_{52,2}, \varphi_{51,2}$
	130 = 127*		
	131 = 129*		
	132 = 128*		
	133	0	$1386_4 = \chi_{53,0}, \varphi_{52,0}$
	134	0	$1386_5 = \chi_{53,1}, \varphi_{52,1}$
	135	0	$1386_6 = \chi_{53,2}, \varphi_{52,2}$
	136 = 133*		
	137 = 135*		
	138 = 134*		
	139	1	$5 \times 2$
	140 = 139*		
	141	0	$2310_1 = \chi_{57,0}, \varphi_{56,0}$
	142	0	$2310_2 = \chi_{57,1}, \varphi_{56,1}$
	143	0	$2310_3 = \chi_{57,2}, \varphi_{56,2}$
	144 = 141*		
	145 = 143*		
	146 = 142*		
	147	0	$2310_7 = \chi_{58,0}, \varphi_{57,0}$
	148	0	$2310_8 = \chi_{58,1}, \varphi_{57,1}$
	149	0	$2310_9 = \chi_{58,2}, \varphi_{57,2}$
	150 = 147*		
	151 = 149*		
	152 = 148*		
	153	0	$2520_1 = \chi_{59,0}, \varphi_{58,0}$
	154	0	$2520_2 = \chi_{59,1}, \varphi_{58,1}$
	155	0	$2520_3 = \chi_{59,2}, \varphi_{58,2}$
	156 = 153*		
	157 = 155*		
	158 = 154*		
	159	0	$2772_1 = \chi_{60,0}, \varphi_{59,0}$
	160	0	$2772_2 = \chi_{60,1}, \varphi_{59,1}$

	blocks	defect	matrix
	161	0	$2772_3 = \chi_{60,2}, \varphi_{59,2}$
	162 = 159*		
	163 = 161*		
	164 = 160*		
	165	0	$3465_2 = \chi_{61,0}, \varphi_{60,0}$
	166	0	$3465_3 = \chi_{61,1}, \varphi_{60,1}$
	167	0	$3465_4 = \chi_{61,2}, \varphi_{60,2}$
	168 = 165*		
	169 = 167*		
	170 = 166*		
	171	0	$10395_7 = \chi_{62+}, \varphi_{61+}$
	172 = 171*		
	173	0	$3696_1 = \chi_{65,0}, \varphi_{64,0}$
	174	0	$3696_2 = \chi_{65,1}, \varphi_{64,1}$
	175	0	$3696_3 = \chi_{65,2}, \varphi_{64,2}$
	176 = 173*		
	177 = 175*		
	178 = 174*		
	179	0	$4620_4 = \chi_{66,0}, \varphi_{65,0}$
	180	0	$4620_5 = \chi_{66,1}, \varphi_{65,1}$
	181	0	$4620_6 = \chi_{66,2}, \varphi_{65,2}$
	182 = 179*		
	183 = 181*		
	184 = 180*		
	185	0	$4620_{10} = \chi_{67,0}, \varphi_{66,0}$
	186	0	$4620_{11} = \chi_{67,1}, \varphi_{66,1}$
	187	0	$4620_{12} = \chi_{67,2}, \varphi_{66,2}$
	188 = 185*		
	189 = 187*		
	190 = 186*		
	191	0	$5544_4 = \chi_{68,0}, \varphi_{67,0}$
	192	0	$5544_5 = \chi_{68,1}, \varphi_{67,1}$
	193	0	$5544_6 = \chi_{68,2}, \varphi_{67,2}$
	194 = 191*		
	195 = 193*		
	196 = 192*		
	197	0	$6720_1 = \chi_{69,0}, \varphi_{68,0}$
	198	0	$6720_2 = \chi_{69,1}, \varphi_{68,1}$
	199	0	$6720_3 = \chi_{69,2}, \varphi_{68,2}$
	200 = 197*		

	blocks	defect	matrix
	201 = 199*		
	202 = 198*		
	203	0	$6930_4 = \chi_{70,0}, \varphi_{69,0}$
	204	0	$6930_5 = \chi_{70,1}, \varphi_{69,1}$
	205	0	$6930_6 = \chi_{70,2}, \varphi_{69,2}$
	206 = 203*		
	207 = 205*		
	208 = 204*		
	209	0	$9240_1 = \chi_{71,0}, \varphi_{70,0}$
	210	0	$9240_2 = \chi_{71,1}, \varphi_{70,1}$
	211	0	$9240_3 = \chi_{71,2}, \varphi_{70,2}$
	212 = 209*		
	213 = 211*		
	214 = 210*		
	215	0	$9240_7 = \chi_{72,0}, \varphi_{71,0}$
	216	0	$9240_8 = \chi_{72,1}, \varphi_{71,1}$
	217	0	$9240_9 = \chi_{72,2}, \varphi_{71,2}$
	218 = 215*		
	219 = 217*		
	220 = 216*		
	221	0	$10395_9 = \chi_{73,0}, \varphi_{72,0}$
	222	0	$10395_{10} = \chi_{73,1}, \varphi_{72,1}$
	223	0	$10395_{11} = \chi_{73,2}, \varphi_{72,2}$
	224 = 221*		
	225 = 223*		
	226 = 222*		
	227	0	$11088_1 = \chi_{74,0}, \varphi_{73,0}$
	228	0	$11088_2 = \chi_{74,1}, \varphi_{73,1}$
	229	0	$11088_3 = \chi_{74,2}, \varphi_{73,2}$
	230 = 227*		
	231 = 229*		
	232 = 228*		
	233	0	$14784_4 = \chi_{78,0}, \varphi_{77,0}$
	234	0	$14784_5 = \chi_{78,1}, \varphi_{77,1}$
	235	0	$14784_6 = \chi_{78,2}, \varphi_{77,2}$
	236 = 233*		
	237 = 235*		
	238 = 234*		
	239	0	$18480_1 = \chi_{79,0}, \varphi_{78,0}$
	240	0	$18480_2 = \chi_{79,1}, \varphi_{78,1}$

	blocks	defect	matrix
	241	0	$18480_3 = \chi_{79,2}, \varphi_{78,2}$
	242 = 239*		
	243 = 241*		
	244 = 240*		
	245	0	$18711_7 = \chi_{80,0}, \varphi_{79,0}$
	246	0	$18711_8 = \chi_{80,1}, \varphi_{79,1}$
	247	0	$18711_9 = \chi_{80,2}, \varphi_{79,2}$
	248 = 245*		
	249 = 247*		
	250 = 246*		
	251	0	$18711_{13} = \chi_{81,0}, \varphi_{80,0}$
	252	0	$18711_{14} = \chi_{81,1}, \varphi_{80,1}$
	253	0	$18711_{15} = \chi_{81,2}, \varphi_{80,2}$
	254 = 251*		
	255 = 253*		
	256 = 252*		
	257	0	$20790_7 = \chi_{82,0}, \varphi_{81,0}$
	258	0	$20790_8 = \chi_{82,1}, \varphi_{81,1}$
	259	0	$20790_9 = \chi_{82,2}, \varphi_{81,2}$
	260 = 257*		
	261 = 259*		
	262 = 258*		
	263	0	$21504_1 = \chi_{83,0}, \varphi_{82,0}$
	264	0	$21504_2 = \chi_{83,1}, \varphi_{82,1}$
	265	0	$21504_3 = \chi_{83,2}, \varphi_{82,2}$
	266 = 263*		
	267 = 265*		
	268 = 264*		
	269	0	$25515_7 = \chi_{84,0}, \varphi_{83,0}$
	270	0	$25515_8 = \chi_{84,1}, \varphi_{83,1}$
	271	0	$25515_9 = \chi_{84,2}, \varphi_{83,2}$
	272 = 269*		
	273 = 271*		
	274 = 270*		
	275 = $\overline{272}$	0	$25515_{13} = \chi_{85,0}, \varphi_{84,0}$
	276 = $\overline{274}$	0	$25515_{14} = \chi_{85,1}, \varphi_{84,1}$
	277 = $\overline{273}$	0	$25515_{15} = \chi_{85,2}, \varphi_{84,2}$
	278 = 275*		
	279 = 277*		
	280 = 276*		

	blocks	defect	matrix
	281	0	$27720_2 = \chi_{86,0}, \varphi_{85,0}$
	282	0	$27720_3 = \chi_{86,1}, \varphi_{85,1}$
	283	0	$27720_4 = \chi_{86,2}, \varphi_{85,2}$
	284 = 281*		
	285 = 283*		
	286 = 282*		
	287	0	$29568_1 = \chi_{87,0}, \varphi_{86,0}$
	288	0	$29568_2 = \chi_{87,1}, \varphi_{86,1}$
	289	0	$29568_3 = \chi_{87,2}, \varphi_{86,2}$
	290 = 287*		
	291 = 289*		
	292 = 288*		
	293	0	$37422_4 = \chi_{88,0}, \varphi_{87,0}$
	294	0	$37422_5 = \chi_{88,1}, \varphi_{87,1}$
	295	0	$37422_6 = \chi_{88,2}, \varphi_{87,2}$
	296 = 293*		
	297 = 295*		
	298 = 294*		

<b>Block 1:</b>	$\varphi_{1,0}$	$\varphi_{2,0}$	$\varphi_{6,0}$	$\varphi_{18,0}$	$\varphi_{34,0}$	$\varphi_{44,0}$	
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	$\varphi_{1,0} = 1_1$
$22_1 = \chi_{2,0}$	.	1	.	.	.	.	$\varphi_{2,0} = 22_1$
$440_1 = \chi_{6,0}$	1	.	1	.	.	.	$\varphi_{6,0} = 439_1$
$3520_1 = \chi_{18,0}$	.	1	.	1	.	.	$\varphi_{18,0} = 3498_1$
$11264_1 = \chi_{34,0}$	.	.	1	.	1	.	$\varphi_{34,0} = 10825_1$
$32768_1 = \chi_{44,0}$	.	.	.	1	.	1	$\varphi_{44,0} = 29270_1$
$40095_1 = \chi_{46,0}$	.	.	.	.	1	1	

<b>Block 2:</b>	$\varphi_{1,1}$	$\varphi_{2,1}$	$\varphi_{6,1}$	$\varphi_{18,1}$	$\varphi_{34,1}$	$\varphi_{44,1}$	
$1_2 = \chi_{1,1}$	1	.	.	.	.	.	$\varphi_{1,1} = 1_2$
$22_2 = \chi_{2,1}$	.	1	.	.	.	.	$\varphi_{2,1} = 22_2$
$440_2 = \chi_{6,1}$	1	.	1	.	.	.	$\varphi_{6,1} = 439_2$
$3520_2 = \chi_{18,1}$	.	1	.	1	.	.	$\varphi_{18,1} = 3498_2$
$11264_2 = \chi_{34,1}$	.	.	1	.	1	.	$\varphi_{34,1} = 10825_2$
$32768_2 = \chi_{44,1}$	.	.	.	1	.	1	$\varphi_{44,1} = 29270_2$
$40095_2 = \chi_{46,1}$	.	.	.	.	1	1	



<b>Block 3:</b>	$\varphi_{1,2}$	$\varphi_{2,2}$	$\varphi_{6,2}$	$\varphi_{18,2}$	$\varphi_{34,2}$	$\varphi_{44,2}$	
$1_3 = \chi_{1,2}$	1	.	.	.	.	.	$\varphi_{1,2} = 1_3$
$22_3 = \chi_{2,2}$	.	1	.	.	.	.	$\varphi_{2,2} = 22_3$
$440_3 = \chi_{6,2}$	1	.	1	.	.	.	$\varphi_{6,2} = 439_3$
$3520_3 = \chi_{18,2}$	.	1	.	1	.	.	$\varphi_{18,2} = 3498_3$
$11264_3 = \chi_{34,2}$	.	.	1	.	1	.	$\varphi_{34,2} = 10825_3$
$32768_3 = \chi_{44,2}$	.	.	.	1	.	1	$\varphi_{44,2} = 29270_3$
$40095_3 = \chi_{46,2}$	.	.	.	.	1	1	

<b>Blocks 139, 140:</b>	$\varphi_{53+}$	$\varphi_{74+}$	
$4455_1 = \chi_{54+}$	1	.	
$35640_1 = \chi_{75+}$	.	1	$\varphi_{53+} = 4455_1$
$40095_4 = \chi_{89,0}$	1	1	$\varphi_{74+} = 35640_1$
$40095_5 = \chi_{89,1}$	1	1	
$40095_6 = \chi_{89,2}$	1	1	