

$U_6(2) \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	7×6
	2	0	$231_1 = \chi_3, \varphi_3$
	3	0	$252_1 = \chi_4, \varphi_4$
	4	0	$385_1 = \chi_5, \varphi_5$
	5	0	$560_1 = \chi_7, \varphi_7$
	6	0	$616_1 = \chi_8, \varphi_8$
	7	0	$770_1 = \chi_9, \varphi_9$
	$8 = \overline{7}$	0	$770_2 = \chi_{10}, \varphi_{10}$
	9	0	$1155_1 = \chi_{11}, \varphi_{11}$
	10	0	$1155_2 = \chi_{12}, \varphi_{12}$
	11	0	$1155_3 = \chi_{13}, \varphi_{13}$
	12	0	$1386_1 = \chi_{14}, \varphi_{14}$
	13	0	$1540_1 = \chi_{15}, \varphi_{15}$
	14	0	$3080_1 = \chi_{16}, \varphi_{16}$
	$15 = \overline{14}$	0	$3080_2 = \chi_{17}, \varphi_{17}$
	16	0	$4620_1 = \chi_{19}, \varphi_{19}$
	17	0	$4928_1 = \chi_{20}, \varphi_{20}$
	18	0	$5544_1 = \chi_{21}, \varphi_{21}$
	19	0	$6160_1 = \chi_{22}, \varphi_{22}$
	$20 = \overline{19}$	0	$6160_2 = \chi_{23}, \varphi_{23}$
	21	0	$6930_1 = \chi_{24}, \varphi_{24}$
	22	0	$8064_1 = \chi_{25}, \varphi_{25}$
	23	0	$9240_1 = \chi_{26}, \varphi_{26}$
	24	0	$9240_2 = \chi_{27}, \varphi_{27}$
	25	0	$9240_3 = \chi_{28}, \varphi_{28}$
	26	0	$10395_1 = \chi_{29}, \varphi_{29}$
	$27 = \overline{26}$	0	$10395_2 = \chi_{30}, \varphi_{30}$
	28	0	$10395_3 = \chi_{31}, \varphi_{31}$
	29	0	$10395_4 = \chi_{32}, \varphi_{32}$
	30	0	$10395_5 = \chi_{33}, \varphi_{33}$
	31	0	$13860_1 = \chi_{35}, \varphi_{35}$
	32	0	$14784_1 = \chi_{36}, \varphi_{36}$
	33	0	$18711_1 = \chi_{37}, \varphi_{37}$
	34	0	$18711_2 = \chi_{38}, \varphi_{38}$
	35	0	$20790_1 = \chi_{39}, \varphi_{39}$
	$36 = \overline{35}$	0	$20790_2 = \chi_{40}, \varphi_{40}$
	37	0	$24640_1 = \chi_{41}, \varphi_{41}$
	38	0	$25515_1 = \chi_{42}, \varphi_{42}$
	$39 = \overline{38}$	0	$25515_2 = \chi_{43}, \varphi_{43}$
	40	0	$37422_1 = \chi_{45}, \varphi_{45}$

	blocks	defect	matrix
$2.G :$	41	0	$56_1 = \chi_{47}, \varphi_{46}$
	42	1	7×6
	43	0	$616_2 = \chi_{49}, \varphi_{48}$
	44	0	$1232_1 = \chi_{51}, \varphi_{50}$
	45	0	$2464_1 = \chi_{52}, \varphi_{51}$
	46	0	$3080_3 = \chi_{53}, \varphi_{52}$
	47	0	$3360_1 = \chi_{54}, \varphi_{53}$
	$48 = \overline{47}$	0	$3360_2 = \chi_{55}, \varphi_{54}$
	49	0	$5544_2 = \chi_{56}, \varphi_{56}$
	50	0	$6160_3 = \chi_{57}, \varphi_{57}$
	51	0	$6160_4 = \chi_{58}, \varphi_{58}$
	$52 = \overline{51}$	0	$6160_5 = \chi_{59}, \varphi_{59}$
	53	0	$9856_1 = \chi_{61}, \varphi_{61}$
	54	0	$12320_1 = \chi_{63}, \varphi_{63}$
	55	0	$12320_2 = \chi_{64}, \varphi_{64}$
	$56 = \overline{55}$	0	$12320_3 = \chi_{65}, \varphi_{65}$
	57	0	$13608_1 = \chi_{66}, \varphi_{66}$
	58	0	$18480_1 = \chi_{68}, \varphi_{67}$
	59	0	$22176_1 = \chi_{70}, \varphi_{69}$
	60	0	$24640_2 = \chi_{71}, \varphi_{70}$
	61	0	$24640_3 = \chi_{72}, \varphi_{71}$
	$62 = \overline{61}$	0	$24640_4 = \chi_{73}, \varphi_{72}$
	63	0	$27720_1 = \chi_{74}, \varphi_{73}$
	64	0	$30240_1 = \chi_{75}, \varphi_{74}$
	65	0	$44352_1 = \chi_{77}, \varphi_{75}$
$3.G :$	66	0	$21_1 = \chi_{78}, \varphi_{76}$
	$67 = 66^*$		
	68	0	$210_1 = \chi_{79}, \varphi_{77}$
	$69 = 68^*$		
	70	0	$231_2 = \chi_{80}, \varphi_{78}$
	$71 = 70^*$		
	72	0	$462_1 = \chi_{81}, \varphi_{79}$
	$73 = 72^*$		
	74	0	$924_1 = \chi_{82}, \varphi_{80}$
	$75 = 74^*$		
	76	0	$1155_4 = \chi_{83}, \varphi_{81}$
	$77 = 76^*$		
	78	0	$1386_2 = \chi_{84}, \varphi_{82}$
	$79 = 78^*$		
	80	1	7×6

	blocks	defect	matrix
	81 = 80*		
	82	0	$2310_1 = \chi_{88}, \varphi_{86}$
	83 = 82*		
	84	0	$2310_3 = \chi_{89}, \varphi_{87}$
	85 = 84*		
	86	0	$2520_1 = \chi_{90}, \varphi_{88}$
	87 = 86*		
	88	0	$2772_1 = \chi_{91}, \varphi_{89}$
	89 = 88*		
	90	0	$3465_1 = \chi_{92}, \varphi_{90}$
	91 = 90*		
	92	0	$3465_3 = \chi_{93}, \varphi_{91}$
	93 = 92*		
	94	0	$3465_5 = \chi_{94}, \varphi_{92}$
	95 = 94*		
	96	0	$3465_7 = \chi_{95}, \varphi_{93}$
	97 = 96*		
	98	0	$3696_1 = \chi_{96}, \varphi_{94}$
	99 = 98*		
	100	0	$4620_2 = \chi_{97}, \varphi_{95}$
	101 = 100*		
	102	0	$4620_4 = \chi_{98}, \varphi_{96}$
	103 = 102*		
	104	0	$5544_3 = \chi_{99}, \varphi_{97}$
	105 = 104*		
	106	0	$6720_1 = \chi_{100}, \varphi_{98}$
	107 = 106*		
	108	0	$6930_2 = \chi_{101}, \varphi_{99}$
	109 = 108*		
	110	0	$9240_4 = \chi_{102}, \varphi_{100}$
	111 = 110*		
	112	0	$9240_6 = \chi_{103}, \varphi_{101}$
	113 = 112*		
	114	0	$10395_6 = \chi_{104}, \varphi_{102}$
	115 = 114*		
	116	0	$11088_1 = \chi_{105}, \varphi_{103}$
	117 = 116*		
	118	0	$14784_2 = \chi_{109}, \varphi_{107}$
	119 = 118*		
	120	0	$18480_2 = \chi_{110}, \varphi_{108}$

	blocks	defect	matrix
	121 = 120*		
	122	0	$18711_3 = \chi_{111}, \varphi_{109}$
	123 = 122*		
	124	0	$18711_5 = \chi_{112}, \varphi_{110}$
	125 = 124*		
	126	0	$20790_3 = \chi_{113}, \varphi_{111}$
	127 = 126*		
	128	0	$21504_1 = \chi_{114}, \varphi_{112}$
	129 = 128*		
	130	0	$25515_3 = \chi_{115}, \varphi_{113}$
	131 = 130*		
	132 = 131	0	$25515_5 = \chi_{116}, \varphi_{114}$
	133 = 132*		
	134	0	$27720_2 = \chi_{117}, \varphi_{115}$
	135 = 134*		
	136	0	$29568_1 = \chi_{118}, \varphi_{116}$
	137 = 136*		
	138	0	$37422_2 = \chi_{119}, \varphi_{117}$
	139 = 138*		
6.G :	140	1	7×6
	141 = 140*		
	142	0	$672_1 = \chi_{122}, \varphi_{119}$
	143 = 142*		
	144	0	$1848_1 = \chi_{124}, \varphi_{121}$
	145 = 144*		
	146	0	$3696_3 = \chi_{126}, \varphi_{123}$
	147 = 146*		
	148	0	$5544_5 = \chi_{127}, \varphi_{126}$
	149 = 148*		
	150	0	$7392_1 = \chi_{129}, \varphi_{127}$
	151 = 150*		
	152	0	$7392_3 = \chi_{130}, \varphi_{128}$
	153 = 152*		
	154	0	$9240_8 = \chi_{132}, \varphi_{129}$
	155 = 154*		
	156	0	$9240_{10} = \chi_{133}, \varphi_{130}$
	157 = 156*		
	158	0	$13608_2 = \chi_{134}, \varphi_{131}$
	159 = 158*		
	160	0	$14784_4 = \chi_{135}, \varphi_{132}$

	blocks	defect	matrix
	161 = 160*		
	162	0	15120 ₁ = $\chi_{136}, \varphi_{133}$
	163 = 162*		
	164 = $\overline{163}$	0	15120 ₃ = $\chi_{137}, \varphi_{134}$
	165 = 164*		
	166	0	18480 ₄ = $\chi_{138}, \varphi_{136}$
	167 = 166*		
	168	0	18480 ₆ = $\chi_{139}, \varphi_{137}$
	169 = 168*		
	170	0	21504 ₃ = $\chi_{142}, \varphi_{138}$
	171 = 170*		
	172	0	22176 ₂ = $\chi_{143}, \varphi_{139}$
	173 = 172*		
	174	0	22176 ₄ = $\chi_{144}, \varphi_{140}$
	175 = 174*		
	176	0	27720 ₄ = $\chi_{145}, \varphi_{141}$
	177 = 176*		
	178	0	36960 ₁ = $\chi_{146}, \varphi_{142}$
	179 = 178*		
	180	0	36960 ₃ = $\chi_{147}, \varphi_{143}$
	181 = 180*		
	182	0	36960 ₅ = $\chi_{148}, \varphi_{144}$
	183 = 182*		

Block 1:	φ_1	φ_2	φ_6	φ_{18}	φ_{34}	φ_{44}	
$1_1 = \chi_1$	1	.	.	.	.	.	$\varphi_1 = 1_1$
$22_1 = \chi_2$	.	1	.	.	.	.	$\varphi_2 = 22_1$
$440_1 = \chi_6$	1	.	1	.	.	.	$\varphi_6 = 439_1$
$3520_1 = \chi_{18}$	.	1	.	1	.	.	$\varphi_{18} = 3498_1$
$11264_1 = \chi_{34}$	.	.	1	.	1	.	$\varphi_{34} = 10825_1$
$32768_1 = \chi_{44}$	.	.	.	1	.	1	$\varphi_{44} = 29270_1$
$40095_1 = \chi_{46}$	.	.	.	.	1	1	

Block 42:	φ_{47}	φ_{49}	φ_{55}	φ_{60}	φ_{62}	φ_{68}	
$176_1 = \chi_{48}$	1	.	.	.	.	.	$\varphi_{47} = 176_1$
$792_1 = \chi_{50}$	.	1	.	.	.	.	$\varphi_{49} = 792_1$
$7776_1 = \chi_{60}$	.	1	.	1	.	.	$\varphi_{55} = 4280_1$
$11264_2 = \chi_{62}$	.	.	1	1	.	.	$\varphi_{60} = 6984_1$
$15840_1 = \chi_{67}$	.	.	1	.	1	.	$\varphi_{62} = 11560_1$
$21384_1 = \chi_{69}$	1	.	.	.	.	1	$\varphi_{68} = 21208_1$
$32768_2 = \chi_{76}$	.	.	.	.	1	1	

Blocks 80, 81:	φ_{83}	φ_{84}	φ_{85}	φ_{104}	φ_{105}	φ_{106}	
$1485_1 = \chi_{85}$	1	.	.	.	.	.	$\varphi_{83} = 1485_1$
$1485_3 = \chi_{86}$	.	1	.	.	.	.	$\varphi_{84} = 1485_3$
$1485_5 = \chi_{87}$	.	.	1	.	.	.	$\varphi_{85} = 1485_5$
$11880_1 = \chi_{106}$	.	.	.	1	.	.	$\varphi_{104} = 11880_1$
$11880_3 = \chi_{107}$	.	.	.	.	1	.	$\varphi_{105} = 11880_3$
$11880_5 = \chi_{108}$	.	.	.	.	.	1	$\varphi_{106} = 11880_5$
$40095_2 = \chi_{120}$	1	1	1	1	1	1	

Blocks 140, 141:	φ_{118}	φ_{120}	φ_{122}	φ_{124}	φ_{125}	φ_{135}	
$120_1 = \chi_{121}$	1	.	.	.	.	.	$\varphi_{118} = 120_1$
$1056_1 = \chi_{123}$	1	1	.	.	.	.	$\varphi_{120} = 936_1$
$2640_1 = \chi_{125}$	.	.	1	.	.	.	$\varphi_{122} = 2640_1$
$6336_1 = \chi_{128}$	.	1	.	.	1	.	$\varphi_{124} = 5136_1$
$7776_2 = \chi_{131}$	.	.	1	1	.	.	$\varphi_{125} = 5400_1$
$21120_1 = \chi_{140}$	.	.	.	1	.	1	$\varphi_{135} = 15984_1$
$21384_2 = \chi_{141}$	.	.	.	.	1	1	