

$U_6(2) \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	1	5×4
	3	1	5×4
	4	0	$385_1 = \chi_5, \varphi_5$
	5	0	$440_1 = \chi_6, \varphi_6$
	6	0	$560_1 = \chi_7, \varphi_7$
	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	$1540_1 = \chi_{15}, \varphi_{15}$
	13	0	$3080_1 = \chi_{16}, \varphi_{16}$
	$14 = \overline{13}$	0	$3080_2 = \chi_{17}, \varphi_{17}$
	15	0	$3520_1 = \chi_{18}, \varphi_{18}$
	16	0	$4620_1 = \chi_{19}, \varphi_{19}$
	17	0	$6160_1 = \chi_{22}, \varphi_{22}$
	$18 = \overline{17}$	0	$6160_2 = \chi_{23}, \varphi_{23}$
	19	0	$6930_1 = \chi_{24}, \varphi_{24}$
	20	0	$9240_1 = \chi_{26}, \varphi_{26}$
	21	0	$9240_2 = \chi_{27}, \varphi_{27}$
	22	0	$9240_3 = \chi_{28}, \varphi_{28}$
	23	0	$10395_1 = \chi_{29}, \varphi_{29}$
	$24 = \overline{23}$	0	$10395_2 = \chi_{30}, \varphi_{30}$
	25	0	$10395_3 = \chi_{31}, \varphi_{31}$
	26	0	$10395_4 = \chi_{32}, \varphi_{32}$
	27	0	$10395_5 = \chi_{33}, \varphi_{33}$
	28	0	$13860_1 = \chi_{35}, \varphi_{36}$
	29	0	$20790_1 = \chi_{39}, \varphi_{37}$
	$30 = \overline{29}$	0	$20790_2 = \chi_{40}, \varphi_{38}$
	31	0	$24640_1 = \chi_{41}, \varphi_{39}$
	32	0	$25515_1 = \chi_{42}, \varphi_{40}$
	$33 = \overline{32}$	0	$25515_2 = \chi_{43}, \varphi_{41}$
	34	0	$40095_1 = \chi_{46}, \varphi_{43}$
$2.G :$	35	1	5×4
	36	1	5×4
	37	1	5×4
	38	0	$3080_3 = \chi_{53}, \varphi_{50}$
	39	0	$3360_1 = \chi_{54}, \varphi_{51}$
	$40 = \overline{39}$	0	$3360_2 = \chi_{55}, \varphi_{52}$

	blocks	defect	matrix
	41	0	$6160_3 = \chi_{57}, \varphi_{54}$
	42	0	$6160_4 = \chi_{58}, \varphi_{55}$
	$43 = \overline{42}$	0	$6160_5 = \chi_{59}, \varphi_{56}$
	44	0	$12320_1 = \chi_{63}, \varphi_{60}$
	45	0	$12320_2 = \chi_{64}, \varphi_{61}$
	$46 = \overline{45}$	0	$12320_3 = \chi_{65}, \varphi_{62}$
	47	0	$15840_1 = \chi_{67}, \varphi_{64}$
	48	0	$18480_1 = \chi_{68}, \varphi_{65}$
	49	0	$24640_2 = \chi_{71}, \varphi_{66}$
	50	0	$24640_3 = \chi_{72}, \varphi_{67}$
	$51 = \overline{50}$	0	$24640_4 = \chi_{73}, \varphi_{68}$
	52	0	$27720_1 = \chi_{74}, \varphi_{69}$
	53	0	$30240_1 = \chi_{75}, \varphi_{70}$
3.G :	54	1	5×4
	$55 = 54^*$		
	56	0	$210_1 = \chi_{79}, \varphi_{73}$
	$57 = 56^*$		
	58	1	5×4
	$59 = 58^*$		
	60	1	5×4
	$61 = 60^*$		
	62	0	$1155_4 = \chi_{83}, \varphi_{77}$
	$63 = 62^*$		
	64	0	$1485_1 = \chi_{85}, \varphi_{79}$
	$65 = 64^*$		
	66	0	$1485_3 = \chi_{86}, \varphi_{80}$
	$67 = 66^*$		
	68	0	$1485_5 = \chi_{87}, \varphi_{81}$
	$69 = 68^*$		
	70	0	$2310_1 = \chi_{88}, \varphi_{82}$
	$71 = 70^*$		
	72	0	$2310_3 = \chi_{89}, \varphi_{83}$
	$73 = 72^*$		
	74	0	$2520_1 = \chi_{90}, \varphi_{84}$
	$75 = 74^*$		
	76	0	$3465_1 = \chi_{92}, \varphi_{86}$
	$77 = 76^*$		
	78	0	$3465_3 = \chi_{93}, \varphi_{87}$
	$79 = 78^*$		
	80	0	$3465_5 = \chi_{94}, \varphi_{88}$

	blocks	defect	matrix
	81 = 80*		
	82	0	$3465_7 = \chi_{95}, \varphi_{89}$
	83 = 82*		
	84	0	$4620_2 = \chi_{97}, \varphi_{91}$
	85 = 84*		
	86	0	$4620_4 = \chi_{98}, \varphi_{92}$
	87 = 86*		
	88	0	$6720_1 = \chi_{100}, \varphi_{94}$
	89 = 88*		
	90	0	$6930_2 = \chi_{101}, \varphi_{95}$
	91 = 90*		
	92	0	$9240_4 = \chi_{102}, \varphi_{96}$
	93 = 92*		
	94	0	$9240_6 = \chi_{103}, \varphi_{97}$
	95 = 94*		
	96	0	$10395_6 = \chi_{104}, \varphi_{98}$
	97 = 96*		
	98	0	$11880_1 = \chi_{106}, \varphi_{100}$
	99 = 98*		
	100	0	$11880_3 = \chi_{107}, \varphi_{101}$
	101 = 100*		
	102	0	$11880_5 = \chi_{108}, \varphi_{102}$
	103 = 102*		
	104	0	$18480_2 = \chi_{110}, \varphi_{105}$
	105 = 104*		
	106	0	$20790_3 = \chi_{113}, \varphi_{106}$
	107 = 106*		
	108	0	$25515_3 = \chi_{115}, \varphi_{107}$
	109 = 108*		
	110 = $\overline{109}$	0	$25515_5 = \chi_{116}, \varphi_{108}$
	111 = 110*		
	112	0	$27720_2 = \chi_{117}, \varphi_{110}$
	113 = 112*		
	114	0	$40095_2 = \chi_{120}, \varphi_{111}$
	115 = 114*		
6.G :	116	0	$120_1 = \chi_{121}, \varphi_{112}$
	117 = 116*		
	118	1	5×4
	119 = 118*		
	120	1	5×4

	blocks	defect	matrix
	121 = 120*		
	122	0	$2640_1 = \chi_{125}, \varphi_{116}$
	123 = 122*		
	124	1	5×4
	125 = 124*		
	126	0	$9240_8 = \chi_{132}, \varphi_{124}$
	127 = 126*		
	128	0	$9240_{10} = \chi_{133}, \varphi_{125}$
	129 = 128*		
	130	0	$15120_1 = \chi_{136}, \varphi_{126}$
	131 = 130*		
	132 = $\overline{131}$	0	$15120_3 = \chi_{137}, \varphi_{127}$
	133 = 132*		
	134	0	$18480_4 = \chi_{138}, \varphi_{130}$
	135 = 134*		
	136	0	$18480_6 = \chi_{139}, \varphi_{131}$
	137 = 136*		
	138	0	$21120_1 = \chi_{140}, \varphi_{132}$
	139 = 138*		
	140	0	$27720_4 = \chi_{145}, \varphi_{133}$
	141 = 140*		
	142	0	$36960_1 = \chi_{146}, \varphi_{134}$
	143 = 142*		
	144	0	$36960_3 = \chi_{147}, \varphi_{135}$
	145 = 144*		
	146	0	$36960_5 = \chi_{148}, \varphi_{136}$
	147 = 146*		

Block 1:	φ_1	φ_8	φ_{25}	φ_{34}	
$1_1 = \chi_1$	1	.	.	.	$\varphi_1 = 1_1$
$616_1 = \chi_8$	.	1	.	.	$\varphi_8 = 616_1$
$8064_1 = \chi_{25}$	.	1	1	.	$\varphi_{25} = 7448_1$
$11264_1 = \chi_{34}$	1	.	.	1	$\varphi_{34} = 11263_1$
$18711_2 = \chi_{38}$	.	.	1	1	

Block 2:	φ_2	φ_4	φ_{20}	φ_{42}
$22_1 = \chi_2$	1	.	.	.
$252_1 = \chi_4$	.	1	.	.
$4928_1 = \chi_{20}$	.	1	1	.
$32768_1 = \chi_{44}$	1	.	.	1
$37422_1 = \chi_{45}$	.	.	1	1

$$\begin{aligned}\varphi_2 &= 22_1 \\ \varphi_4 &= 252_1 \\ \varphi_{20} &= 4676_1 \\ \varphi_{42} &= 32746_1\end{aligned}$$

Block 3:	φ_3	φ_{14}	φ_{21}	φ_{35}
$231_1 = \chi_3$	1	.	.	.
$1386_1 = \chi_{14}$	.	1	.	.
$5544_1 = \chi_{21}$	1	.	1	.
$14784_1 = \chi_{36}$	.	1	.	1
$18711_1 = \chi_{37}$	.	.	1	1

$$\begin{aligned}\varphi_3 &= 231_1 \\ \varphi_{14} &= 1386_1 \\ \varphi_{21} &= 5313_1 \\ \varphi_{35} &= 13398_1\end{aligned}$$

Block 35:	φ_{44}	φ_{45}	φ_{49}	φ_{53}
$56_1 = \chi_{47}$	1	.	.	.
$176_1 = \chi_{48}$	.	1	.	.
$2464_1 = \chi_{52}$	1	.	1	.
$5544_2 = \chi_{56}$	.	1	.	1
$7776_1 = \chi_{60}$	.	.	1	1

$$\begin{aligned}\varphi_{44} &= 56_1 \\ \varphi_{45} &= 176_1 \\ \varphi_{49} &= 2408_1 \\ \varphi_{53} &= 5368_1\end{aligned}$$

Block 36:	φ_{46}	φ_{57}	φ_{58}	φ_{59}
$616_2 = \chi_{49}$	1	.	.	.
$9856_1 = \chi_{61}$	.	1	.	.
$11264_2 = \chi_{62}$	1	.	1	.
$21384_1 = \chi_{69}$	.	1	.	1
$22176_1 = \chi_{70}$	.	.	1	1

$$\begin{aligned}\varphi_{46} &= 616_2 \\ \varphi_{57} &= 9856_1 \\ \varphi_{58} &= 10648_1 \\ \varphi_{59} &= 11528_1\end{aligned}$$

Block 37:	φ_{47}	φ_{48}	φ_{63}	φ_{71}
$792_1 = \chi_{50}$	1	.	.	.
$1232_1 = \chi_{51}$	.	1	.	.
$13608_1 = \chi_{66}$	.	1	1	.
$32768_2 = \chi_{76}$	1	.	.	1
$44352_1 = \chi_{77}$	.	.	1	1

$$\begin{aligned}\varphi_{47} &= 792_1 \\ \varphi_{48} &= 1232_1 \\ \varphi_{63} &= 12376_1 \\ \varphi_{71} &= 31976_1\end{aligned}$$

Blocks 54, 55:	φ_{72}	φ_{76}	φ_{90}	φ_{104}
$21_1 = \chi_{78}$	1	.	.	.
$924_1 = \chi_{82}$	1	1	.	.
$3696_1 = \chi_{96}$	.	.	1	.
$18711_3 = \chi_{111}$	.	1	.	1
$21504_1 = \chi_{114}$	.	.	1	1

$$\begin{aligned}
\varphi_{72} &= 21_1 \\
\varphi_{76} &= 903_1 \\
\varphi_{90} &= 3696_1 \\
\varphi_{104} &= 17808_1
\end{aligned}$$

Blocks 58, 59:	φ_{74}	φ_{78}	φ_{93}	φ_{103}
$231_2 = \chi_{80}$	1	.	.	.
$1386_2 = \chi_{84}$	.	1	.	.
$5544_3 = \chi_{99}$	1	.	1	.
$14784_2 = \chi_{109}$	.	1	.	1
$18711_5 = \chi_{112}$	.	.	1	1

$$\begin{aligned}
\varphi_{74} &= 231_2 \\
\varphi_{78} &= 1386_2 \\
\varphi_{93} &= 5313_2 \\
\varphi_{103} &= 13398_2
\end{aligned}$$

Blocks 60, 61:	φ_{75}	φ_{85}	φ_{99}	φ_{109}
$462_1 = \chi_{81}$	1	.	.	.
$2772_1 = \chi_{91}$	.	1	.	.
$11088_1 = \chi_{105}$	1	.	1	.
$29568_1 = \chi_{118}$	.	1	.	1
$37422_2 = \chi_{119}$	.	.	1	1

$$\begin{aligned}
\varphi_{75} &= 462_1 \\
\varphi_{85} &= 2772_1 \\
\varphi_{99} &= 10626_1 \\
\varphi_{109} &= 26796_1
\end{aligned}$$

Blocks 118, 119:	φ_{113}	φ_{115}	φ_{119}	φ_{122}
$672_1 = \chi_{122}$	1	.	.	.
$1848_1 = \chi_{124}$	1	1	.	.
$7392_1 = \chi_{129}$	.	1	1	.
$7392_3 = \chi_{130}$	.	.	.	1
$13608_2 = \chi_{134}$	.	.	1	1

$$\begin{aligned}
\varphi_{113} &= 672_1 \\
\varphi_{115} &= 1176_1 \\
\varphi_{119} &= 6216_1 \\
\varphi_{122} &= 7392_1
\end{aligned}$$

Blocks 120, 121:	φ_{114}	φ_{117}	φ_{118}	φ_{129}
$1056_1 = \chi_{123}$	1	.	.	.
$3696_3 = \chi_{126}$	.	1	.	.
$5544_5 = \chi_{127}$	1	.	1	.
$21384_2 = \chi_{141}$	.	1	.	1
$22176_4 = \chi_{144}$	.	.	1	1

$$\begin{aligned}
\varphi_{114} &= 1056_1 \\
\varphi_{117} &= 3696_3 \\
\varphi_{118} &= 4488_1 \\
\varphi_{129} &= 17688_1
\end{aligned}$$

Blocks 124, 125:	φ_{120}	φ_{121}	φ_{123}	φ_{128}
$6336_1 = \chi_{128}$	1	.	.	.
$7776_2 = \chi_{131}$	.	.	1	.
$14784_4 = \chi_{135}$	.	1	1	.
$21504_3 = \chi_{142}$	1	.	.	1
$22176_2 = \chi_{143}$	.	1	.	1

$$\begin{aligned} \varphi_{120} &= 6336_1 \\ \varphi_{121} &= 7008_1 \\ \varphi_{123} &= 7776_1 \\ \varphi_{128} &= 15168_1 \end{aligned}$$