

## $S_6(3) \pmod{13}$

	blocks	defect	matrix
$G :$	1	1	$8 \times 6$
	2	0	$13_1 = \chi_2, \varphi_2$
	$3 = \overline{2}$	0	$13_2 = \chi_3, \varphi_3$
	4	0	$78_1 = \chi_4, \varphi_4$
	5	0	$91_1 = \chi_5, \varphi_5$
	$6 = \overline{5}$	0	$91_2 = \chi_6, \varphi_6$
	7	0	$195_1 = \chi_9, \varphi_9$
	8	0	$273_1 = \chi_{10}, \varphi_{10}$
	$9 = \overline{8}$	0	$273_2 = \chi_{11}, \varphi_{11}$
	10	0	$455_1 = \chi_{12}, \varphi_{12}$
	$11 = \overline{10}$	0	$455_2 = \chi_{13}, \varphi_{13}$
	12	0	$546_1 = \chi_{14}, \varphi_{14}$
	$13 = \overline{12}$	0	$546_2 = \chi_{15}, \varphi_{15}$
	14	0	$728_1 = \chi_{16}, \varphi_{16}$
	$15 = \overline{14}$	0	$728_2 = \chi_{17}, \varphi_{17}$
	16	0	$819_1 = \chi_{18}, \varphi_{18}$
	17	0	$1170_1 = \chi_{19}, \varphi_{19}$
	$18 = \overline{17}$	0	$1170_2 = \chi_{20}, \varphi_{20}$
	19	0	$1365_1 = \chi_{21}, \varphi_{21}$
	$20 = \overline{19}$	0	$1365_2 = \chi_{22}, \varphi_{22}$
	21	0	$1365_3 = \chi_{23}, \varphi_{23}$
	$22 = \overline{21}$	0	$1365_4 = \chi_{24}, \varphi_{24}$
	23	0	$1365_5 = \chi_{25}, \varphi_{25}$
	$24 = \overline{23}$	0	$1365_6 = \chi_{26}, \varphi_{26}$
	25	0	$1820_1 = \chi_{27}, \varphi_{27}$
	26	0	$1820_2 = \chi_{28}, \varphi_{28}$
	$27 = \overline{26}$	0	$1820_3 = \chi_{29}, \varphi_{29}$
	28	0	$2106_1 = \chi_{30}, \varphi_{30}$
	29	0	$2184_1 = \chi_{31}, \varphi_{31}$
	$30 = \overline{29}$	0	$2184_2 = \chi_{32}, \varphi_{32}$
	31	0	$2457_1 = \chi_{33}, \varphi_{33}$
	32	0	$2457_2 = \chi_{34}, \varphi_{34}$
	$33 = \overline{32}$	0	$2457_3 = \chi_{35}, \varphi_{35}$
	34	0	$2730_1 = \chi_{36}, \varphi_{36}$
	35	0	$3640_1 = \chi_{38}, \varphi_{38}$
	$36 = \overline{35}$	0	$3640_2 = \chi_{39}, \varphi_{39}$
	37	0	$4095_1 = \chi_{40}, \varphi_{40}$
	$38 = \overline{37}$	0	$4095_2 = \chi_{41}, \varphi_{41}$
	39	0	$5265_1 = \chi_{43}, \varphi_{43}$
	40	0	$5460_1 = \chi_{44}, \varphi_{44}$

	blocks	defect	matrix
	41	0	$5460_2 = \chi_{45}, \varphi_{45}$
	42	0	$5460_3 = \chi_{46}, \varphi_{46}$
	$43 = \overline{42}$	0	$5460_4 = \chi_{47}, \varphi_{47}$
	44	0	$5824_1 = \chi_{48}, \varphi_{48}$
	45	0	$5824_2 = \chi_{49}, \varphi_{49}$
	$46 = \overline{45}$	0	$5824_3 = \chi_{50}, \varphi_{50}$
	47	0	$6552_1 = \chi_{51}, \varphi_{51}$
	$48 = \overline{47}$	0	$6552_2 = \chi_{52}, \varphi_{52}$
	49	0	$7371_1 = \chi_{53}, \varphi_{53}$
	$50 = \overline{49}$	0	$7371_2 = \chi_{54}, \varphi_{54}$
	51	0	$8190_1 = \chi_{55}, \varphi_{55}$
	52	0	$9477_1 = \chi_{56}, \varphi_{56}$
	$53 = \overline{52}$	0	$9477_2 = \chi_{57}, \varphi_{57}$
	54	0	$10920_1 = \chi_{58}, \varphi_{58}$
	$55 = \overline{54}$	0	$10920_2 = \chi_{59}, \varphi_{59}$
	56	0	$11648_1 = \chi_{60}, \varphi_{60}$
	57	0	$11648_2 = \chi_{61}, \varphi_{61}$
	$58 = \overline{57}$	0	$11648_3 = \chi_{62}, \varphi_{62}$
	59	0	$12285_1 = \chi_{63}, \varphi_{63}$
	$60 = \overline{59}$	0	$12285_2 = \chi_{64}, \varphi_{64}$
	61	0	$14560_1 = \chi_{65}, \varphi_{65}$
	62	0	$14560_2 = \chi_{66}, \varphi_{66}$
	$63 = \overline{62}$	0	$14560_3 = \chi_{67}, \varphi_{67}$
	64	0	$16380_1 = \chi_{68}, \varphi_{69}$
	65	0	$16640_1 = \chi_{69}, \varphi_{70}$
	66	0	$16640_2 = \chi_{70}, \varphi_{71}$
	67	0	$17472_1 = \chi_{71}, \varphi_{72}$
2.G :	68	1	$8 \times 6$
	69	0	$182_1 = \chi_{77}, \varphi_{75}$
	70	0	$182_2 = \chi_{78}, \varphi_{76}$
	$71 = \overline{70}$	0	$182_3 = \chi_{79}, \varphi_{77}$
	72	0	$364_1 = \chi_{80}, \varphi_{78}$
	$73 = \overline{72}$	0	$364_2 = \chi_{81}, \varphi_{79}$
	74	0	$520_1 = \chi_{82}, \varphi_{80}$
	75	0	$546_3 = \chi_{83}, \varphi_{81}$
	$76 = \overline{75}$	0	$546_4 = \chi_{84}, \varphi_{82}$
	77	0	$910_1 = \chi_{85}, \varphi_{83}$
	$78 = \overline{77}$	0	$910_2 = \chi_{86}, \varphi_{84}$
	79	0	$1092_1 = \chi_{87}, \varphi_{85}$
	80	0	$1092_2 = \chi_{88}, \varphi_{86}$

	blocks	defect	matrix
	81 = $\overline{80}$	0	1092 <sub>3</sub> = $\chi_{89}, \varphi_{87}$
	82	0	1092 <sub>4</sub> = $\chi_{90}, \varphi_{88}$
	83 = $\overline{82}$	0	1092 <sub>5</sub> = $\chi_{91}, \varphi_{89}$
	84	0	1820 <sub>4</sub> = $\chi_{94}, \varphi_{92}$
	85 = $\overline{84}$	0	1820 <sub>5</sub> = $\chi_{95}, \varphi_{93}$
	86	0	2730 <sub>2</sub> = $\chi_{96}, \varphi_{94}$
	87	0	2730 <sub>3</sub> = $\chi_{97}, \varphi_{95}$
	88	0	2730 <sub>4</sub> = $\chi_{98}, \varphi_{96}$
	89 = $\overline{88}$	0	2730 <sub>5</sub> = $\chi_{99}, \varphi_{97}$
	90	0	2730 <sub>6</sub> = $\chi_{100}, \varphi_{98}$
	91 = $\overline{90}$	0	2730 <sub>7</sub> = $\chi_{101}, \varphi_{99}$
	92	0	3120 <sub>1</sub> = $\chi_{102}, \varphi_{100}$
	93	0	3276 <sub>1</sub> = $\chi_{103}, \varphi_{101}$
	94 = $\overline{93}$	0	3276 <sub>2</sub> = $\chi_{104}, \varphi_{102}$
	95	0	3640 <sub>3</sub> = $\chi_{105}, \varphi_{103}$
	96 = $\overline{95}$	0	3640 <sub>4</sub> = $\chi_{106}, \varphi_{104}$
	97	0	4368 <sub>1</sub> = $\chi_{107}, \varphi_{105}$
	98	0	4368 <sub>2</sub> = $\chi_{108}, \varphi_{106}$
	99 = $\overline{98}$	0	4368 <sub>3</sub> = $\chi_{109}, \varphi_{107}$
	100	0	4914 <sub>1</sub> = $\chi_{110}, \varphi_{108}$
	101 = $\overline{100}$	0	4914 <sub>2</sub> = $\chi_{111}, \varphi_{109}$
	102	0	5460 <sub>5</sub> = $\chi_{112}, \varphi_{110}$
	103	0	5460 <sub>6</sub> = $\chi_{113}, \varphi_{111}$
	104 = $\overline{103}$	0	5460 <sub>7</sub> = $\chi_{114}, \varphi_{112}$
	105	0	5824 <sub>4</sub> = $\chi_{115}, \varphi_{113}$
	106	0	5824 <sub>5</sub> = $\chi_{116}, \varphi_{114}$
	107 = $\overline{106}$	0	5824 <sub>6</sub> = $\chi_{117}, \varphi_{115}$
	108	0	7280 <sub>1</sub> = $\chi_{118}, \varphi_{116}$
	109	0	7280 <sub>2</sub> = $\chi_{119}, \varphi_{117}$
	110 = $\overline{109}$	0	7280 <sub>3</sub> = $\chi_{120}, \varphi_{118}$
	111	0	8190 <sub>2</sub> = $\chi_{121}, \varphi_{119}$
	112 = $\overline{111}$	0	8190 <sub>3</sub> = $\chi_{122}, \varphi_{120}$
	113	0	9828 <sub>1</sub> = $\chi_{123}, \varphi_{123}$
	114 = $\overline{113}$	0	9828 <sub>2</sub> = $\chi_{124}, \varphi_{124}$
	115	0	10920 <sub>3</sub> = $\chi_{127}, \varphi_{125}$
	116 = $\overline{115}$	0	10920 <sub>4</sub> = $\chi_{128}, \varphi_{126}$
	117	0	11648 <sub>4</sub> = $\chi_{129}, \varphi_{127}$
	118	0	11648 <sub>5</sub> = $\chi_{130}, \varphi_{128}$
	119 = $\overline{118}$	0	11648 <sub>6</sub> = $\chi_{131}, \varphi_{129}$
	120	0	14040 <sub>1</sub> = $\chi_{132}, \varphi_{130}$

	blocks	defect	matrix
	121	0	$14742_1 = \chi_{133}, \varphi_{131}$
	122	0	$14742_2 = \chi_{134}, \varphi_{132}$
	$123 = \overline{122}$	0	$14742_3 = \chi_{135}, \varphi_{133}$
	124	0	$16640_3 = \chi_{136}, \varphi_{134}$
	125	0	$16640_4 = \chi_{137}, \varphi_{135}$
	126	0	$17472_2 = \chi_{138}, \varphi_{136}$
	127	0	$21840_1 = \chi_{141}, \varphi_{137}$

<b>Block 1:</b>	$\varphi_1$	$\varphi_7$	$\varphi_8$	$\varphi_{37}$	$\varphi_{42}$	$\varphi_{68}$	
$1_1 = \chi_1$	1	.	.	.	.	.	$\varphi_1 = 1_1$
$105_1 = \chi_7$	.	1	.	.	.	.	$\varphi_7 = 105_1$
$168_1 = \chi_8$	1	.	1	.	.	.	$\varphi_8 = 167_1$
$2835_1 = \chi_{37}$	.	.	1	1	.	.	$\varphi_{37} = 2668_1$
$4536_1 = \chi_{42}$	.	1	.	.	1	.	$\varphi_{42} = 4431_1$
$17920_1 = \chi_{72}$	.	.	.	1	.	1	$\varphi_{68} = 15252_1$
$17920_2 = \chi_{73}$	.	.	.	1	.	1	
$19683_1 = \chi_{74}$	.	.	.	.	1	1	

<b>Block 68:</b>	$\varphi_{73}$	$\varphi_{74}$	$\varphi_{90}$	$\varphi_{91}$	$\varphi_{121}$	$\varphi_{122}$	
$14_1 = \chi_{75}$	1	.	.	.	.	.	$\varphi_{73} = 14_1$
$14_2 = \chi_{76}$	.	1	.	.	.	.	$\varphi_{74} = 14_2$
$1260_1 = \chi_{92}$	.	1	1	.	.	.	$\varphi_{90} = 1246_1$
$1260_2 = \chi_{93}$	1	.	.	1	.	.	$\varphi_{91} = 1246_2$
$10206_1 = \chi_{125}$	.	.	.	1	1	.	$\varphi_{121} = 8960_1$
$10206_2 = \chi_{126}$	.	.	1	.	.	1	$\varphi_{122} = 8960_2$
$17920_3 = \chi_{139}$	.	.	.	.	1	1	
$17920_4 = \chi_{140}$	.	.	.	.	1	1	