

$S_6(3).2 \pmod{5}$

	blocks	defect	matrix
$G :$	1	1	5×4
	2	1	5×4
	3	1	5×4
	4	1	5×4
	5	1	5×4
	6	1	5×4
	7	0	$105_1 = \chi_{7,0}, \varphi_{7,0}$
	8	0	$105_2 = \chi_{7,1}, \varphi_{7,1}$
	9	0	$195_1 = \chi_{9,0}, \varphi_{9,0}$
	10	0	$195_2 = \chi_{9,1}, \varphi_{9,1}$
	11	0	$910_1 = \chi_{12+}, \varphi_{12+}$
	12	1	4×2
	13	0	$2340_1 = \chi_{19+}, \varphi_{19+}$
	14	0	$2730_1 = \chi_{21+}, \varphi_{21+}$
	15	0	$2730_2 = \chi_{23+}, \varphi_{23+}$
	16	0	$2730_3 = \chi_{25+}, \varphi_{25+}$
	17	0	$1820_1 = \chi_{27,0}, \varphi_{27,0}$
	18	0	$1820_2 = \chi_{27,1}, \varphi_{27,1}$
	19	0	$3640_1 = \chi_{28+}, \varphi_{28+}$
	20	0	$2730_4 = \chi_{36,0}, \varphi_{36,0}$
	21	0	$2730_5 = \chi_{36,1}, \varphi_{36,1}$
	22	0	$2835_1 = \chi_{37,0}, \varphi_{37,0}$
	23	0	$2835_2 = \chi_{37,1}, \varphi_{37,1}$
	24	0	$7280_1 = \chi_{38+}, \varphi_{38+}$
	25	0	$8190_1 = \chi_{40+}, \varphi_{41+}$
	26	0	$5265_1 = \chi_{43,0}, \varphi_{43,0}$
	27	0	$5265_2 = \chi_{43,1}, \varphi_{43,1}$
	28	0	$5460_1 = \chi_{44,0}, \varphi_{46,0}$
	29	0	$5460_2 = \chi_{44,1}, \varphi_{46,1}$
	30	0	$5460_3 = \chi_{45,0}, \varphi_{47,0}$
	31	0	$5460_4 = \chi_{45,1}, \varphi_{47,1}$
	32	0	$10920_1 = \chi_{46+}, \varphi_{48+}$
	33	0	$8190_2 = \chi_{55,0}, \varphi_{52,0}$
	34	0	$8190_3 = \chi_{55,1}, \varphi_{52,1}$
	35	0	$21840_1 = \chi_{58+}, \varphi_{55+}$
	36	0	$24570_1 = \chi_{63+}, \varphi_{57+}$
	37	0	$14560_1 = \chi_{65,0}, \varphi_{59,0}$
	38	0	$14560_2 = \chi_{65,1}, \varphi_{59,1}$
	39	0	$29120_1 = \chi_{66+}, \varphi_{60+}$
	40	0	$16380_1 = \chi_{68,0}, \varphi_{62,0}$

	blocks	defect	matrix
	41	0	$16380_2 = \chi_{68,1}, \varphi_{62,1}$
	42	0	$16640_1 = \chi_{69,0}, \varphi_{63,0}$
	43	0	$16640_2 = \chi_{69,1}, \varphi_{63,1}$
	44	0	$16640_3 = \chi_{70,0}, \varphi_{64,0}$
	45	0	$16640_4 = \chi_{70,1}, \varphi_{64,1}$
	46	0	$17920_1 = \chi_{72,0}, \varphi_{66,0}$
	47	0	$17920_2 = \chi_{72,1}, \varphi_{66,1}$
	48	0	$17920_3 = \chi_{73,0}, \varphi_{67,0}$
	49	0	$17920_4 = \chi_{73,1}, \varphi_{67,1}$
2.G :	50	1	5×4
	51	1	5×4
	$52 = \overline{51}$	1	5×4
	53	1	5×4
	54	1	4×2
	55	0	$520_1 = \chi_{82,0}, \varphi_{75,0}$
	$56 = \overline{55}$	0	$520_2 = \chi_{82,1}, \varphi_{75,1}$
	57	0	$1820_3 = \chi_{85+}, \varphi_{78+}$
	58	1	4×2
	59	0	$2520_1 = \chi_{92+}, \varphi_{85+}$
	60	0	$3640_2 = \chi_{94+}, \varphi_{87+}$
	61	0	$2730_6 = \chi_{96,0}, \varphi_{89,0}$
	$62 = \overline{61}$	0	$2730_7 = \chi_{96,1}, \varphi_{89,1}$
	63	0	$2730_8 = \chi_{97,0}, \varphi_{90,0}$
	$64 = \overline{63}$	0	$2730_9 = \chi_{97,1}, \varphi_{90,1}$
	65	0	$5460_5 = \chi_{98+}, \varphi_{91+}$
	66	0	$5460_6 = \chi_{100+}, \varphi_{93+}$
	67	0	$3120_1 = \chi_{102,0}, \varphi_{97,0}$
	$68 = \overline{67}$	0	$3120_2 = \chi_{102,1}, \varphi_{97,1}$
	69	0	$7280_2 = \chi_{105+}, \varphi_{98+}$
	70	0	$5460_7 = \chi_{112,0}, \varphi_{105,0}$
	$71 = \overline{70}$	0	$5460_8 = \chi_{112,1}, \varphi_{105,1}$
	72	0	$10920_2 = \chi_{113+}, \varphi_{106+}$
	73	0	$7280_3 = \chi_{118,0}, \varphi_{110,0}$
	$74 = \overline{73}$	0	$7280_4 = \chi_{118,1}, \varphi_{110,1}$
	75	0	$14560_3 = \chi_{119+}, \varphi_{111+}$
	76	0	$16380_3 = \chi_{121+}, \varphi_{113+}$
	77	0	$21840_2 = \chi_{127+}, \varphi_{117+}$
	78	0	$14040_1 = \chi_{132,0}, \varphi_{122,0}$
	$79 = \overline{78}$	0	$14040_2 = \chi_{132,1}, \varphi_{122,1}$
	80	0	$16640_5 = \chi_{136,0}, \varphi_{123,0}$

	blocks	defect	matrix
	$81 = \overline{80}$	0	$16640_6 = \chi_{136,1}, \varphi_{123,1}$
	82	0	$16640_7 = \chi_{137,0}, \varphi_{124,0}$
	$83 = \overline{82}$	0	$16640_8 = \chi_{137,1}, \varphi_{124,1}$
	84	0	$17920_5 = \chi_{139,0}, \varphi_{125,0}$
	$85 = \overline{84}$	0	$17920_6 = \chi_{139,1}, \varphi_{125,1}$
	86	0	$17920_7 = \chi_{140,0}, \varphi_{126,0}$
	$87 = \overline{86}$	0	$17920_8 = \chi_{140,1}, \varphi_{126,1}$
	88	0	$21840_3 = \chi_{141,0}, \varphi_{127,0}$
	$89 = \overline{88}$	0	$21840_4 = \chi_{141,1}, \varphi_{127,1}$

Block 1:	$\varphi_{1,0}$	$\varphi_{18,0}$	$\varphi_{32,0}$	$\varphi_{40,0}$	
$1_1 = \chi_{1,0}$	1	.	.	.	$\varphi_{1,0} = 1_1$
$819_1 = \chi_{18,0}$	1	1	.	.	$\varphi_{18,0} = 818_1$
$2106_1 = \chi_{30,0}$	.	.	1	.	$\varphi_{32,0} = 2106_1$
$4536_1 = \chi_{42,0}$	.	1	.	1	$\varphi_{40,0} = 3718_1$
$5824_2 = \chi_{48,1}$	.	.	1	1	

Block 2:	$\varphi_{1,1}$	$\varphi_{18,1}$	$\varphi_{32,1}$	$\varphi_{40,1}$	
$1_2 = \chi_{1,1}$	1	.	.	.	$\varphi_{1,1} = 1_2$
$819_2 = \chi_{18,1}$	1	1	.	.	$\varphi_{18,1} = 818_2$
$2106_2 = \chi_{30,1}$	.	.	1	.	$\varphi_{32,1} = 2106_2$
$4536_2 = \chi_{42,1}$	.	1	.	1	$\varphi_{40,1} = 3718_2$
$5824_1 = \chi_{48,0}$	.	.	1	1	

Block 3:	φ_{2+}	φ_{10+}	φ_{34+}	φ_{53+}	
$26_1 = \chi_{2+}$	1	.	.	.	$\varphi_{2+} = 26_1$
$546_1 = \chi_{10+}$	.	1	.	.	$\varphi_{10+} = 546_1$
$4914_1 = \chi_{34+}$	1	.	1	.	$\varphi_{34+} = 4888_1$
$18954_1 = \chi_{56+}$	.	1	.	1	$\varphi_{53+} = 18408_1$
$23296_1 = \chi_{61+}$	.	.	1	1	

Block 4:	$\varphi_{4,0}$	$\varphi_{8,1}$	$\varphi_{33,1}$	$\varphi_{65,0}$
$78_1 = \chi_{4,0}$	1	.	.	.
$168_2 = \chi_{8,1}$	.	1	.	.
$2457_2 = \chi_{33,1}$	.	1	1	.
$17472_1 = \chi_{71,0}$	1	.	.	1
$19683_2 = \chi_{74,1}$	.	.	1	1

$$\begin{aligned}
\varphi_{4,0} &= 78_1 \\
\varphi_{8,1} &= 168_2 \\
\varphi_{33,1} &= 2289_2 \\
\varphi_{65,0} &= 17394_1
\end{aligned}$$

Block 5:	$\varphi_{4,1}$	$\varphi_{8,0}$	$\varphi_{33,0}$	$\varphi_{65,1}$
$78_2 = \chi_{4,1}$	1	.	.	.
$168_1 = \chi_{8,0}$	.	1	.	.
$2457_1 = \chi_{33,0}$	.	1	1	.
$17472_2 = \chi_{71,1}$	1	.	.	1
$19683_1 = \chi_{74,0}$	.	.	1	1

$$\begin{aligned}
\varphi_{4,1} &= 78_2 \\
\varphi_{8,0} &= 168_1 \\
\varphi_{33,0} &= 2289_1 \\
\varphi_{65,1} &= 17394_2
\end{aligned}$$

Block 6:	φ_{5+}	φ_{14+}	φ_{30+}	φ_{44+}
$182_1 = \chi_{5+}$	1	.	.	.
$1092_1 = \chi_{14+}$	.	1	.	.
$4368_1 = \chi_{31+}$	1	.	1	.
$11648_1 = \chi_{49+}$	.	1	.	1
$14742_1 = \chi_{53+}$	.	.	1	1

$$\begin{aligned}
\varphi_{5+} &= 182_1 \\
\varphi_{14+} &= 1092_1 \\
\varphi_{30+} &= 4186_1 \\
\varphi_{44+} &= 10556_1
\end{aligned}$$

Block 12:	φ_{16+}	φ_{50+}
$1456_1 = \chi_{16+}$	1	.
$13104_1 = \chi_{51+}$	1	1
$11648_2 = \chi_{60,0}$	.	1
$11648_3 = \chi_{60,1}$	.	1

$$\begin{aligned}
\varphi_{16+} &= 1456_1 \\
\varphi_{50+} &= 11648_1
\end{aligned}$$

Block 50:	φ_{68+}	φ_{76+}	φ_{103+}	φ_{108+}
$28_1 = \chi_{75+}$	1	.	.	.
$1092_2 = \chi_{83+}$	1	1	.	.
$9828_1 = \chi_{110+}$	.	1	1	.
$11648_4 = \chi_{116+}$	.	.	.	1
$20412_1 = \chi_{125+}$	.	.	1	1

$$\begin{aligned}
\varphi_{68+} &= 28_1 \\
\varphi_{76+} &= 1064_1 \\
\varphi_{103+} &= 8764_1 \\
\varphi_{108+} &= 11648_2
\end{aligned}$$

Block 51:	$\varphi_{70,0}$	$\varphi_{80,0}$	$\varphi_{100,1}$	$\varphi_{119,0}$	
$182_2 = \chi_{77,0}$	1	.	.	.	$\varphi_{70,0} = 182_2$
$1092_3 = \chi_{87,0}$	.	1	.	.	$\varphi_{80,0} = 1092_2$
$4368_3 = \chi_{107,1}$	1	.	1	.	$\varphi_{100,1} = 4186_3$
$11648_5 = \chi_{129,0}$	.	1	.	1	$\varphi_{119,0} = 10556_2$
$14742_3 = \chi_{133,1}$	.	.	1	1	

Block 52:	$\varphi_{70,1}$	$\varphi_{80,1}$	$\varphi_{100,0}$	$\varphi_{119,1}$	
$182_3 = \chi_{77,1}$	1	.	.	.	$\varphi_{70,1} = 182_3$
$1092_4 = \chi_{87,1}$	.	1	.	.	$\varphi_{80,1} = 1092_3$
$4368_2 = \chi_{107,0}$	1	.	1	.	$\varphi_{100,0} = 4186_2$
$11648_6 = \chi_{129,1}$	.	1	.	1	$\varphi_{119,1} = 10556_3$
$14742_2 = \chi_{133,0}$	.	.	1	1	

Block 53:	φ_{71+}	φ_{83+}	φ_{101+}	φ_{120+}	
$364_1 = \chi_{78+}$	1	.	.	.	$\varphi_{71+} = 364_1$
$2184_2 = \chi_{90+}$	.	1	.	.	$\varphi_{83+} = 2184_2$
$8736_1 = \chi_{108+}$	1	.	1	.	$\varphi_{101+} = 8372_1$
$23296_2 = \chi_{130+}$	.	1	.	1	$\varphi_{120+} = 21112_1$
$29484_1 = \chi_{134+}$	.	.	1	1	

Block 54:	φ_{73+}	φ_{95+}	
$728_1 = \chi_{80+}$	1	.	$\varphi_{73+} = 728_1$
$6552_1 = \chi_{103+}$	1	1	$\varphi_{95+} = 5824_1$
$5824_3 = \chi_{115,0}$	.	1	
$5824_4 = \chi_{115,1}$	.	1	

Block 58:	φ_{81+}	φ_{115+}	
$2184_1 = \chi_{88+}$	1	.	$\varphi_{81+} = 2184_1$
$19656_1 = \chi_{123+}$	1	1	$\varphi_{115+} = 17472_1$
$17472_3 = \chi_{138,0}$	.	1	
$17472_4 = \chi_{138,1}$	.	1	