

$A_{15.2} \pmod{13}$

	blocks	defect	matrix		blocks	defect	matrix
$G :$	1	1	13×12		41	0	$12740_2 = \chi_{31,1}, Y_{55}$
	2	1	13×12		42	0	$13650_1 = \chi_{32,0}, Y_{56}$
	3	0	$91_1 = \chi_{4,0}, Y_7$		43	0	$13650_2 = \chi_{32,1}, Y_{57}$
	4	0	$91_2 = \chi_{4,1}, Y_8$		44	0	$14300_1 = \chi_{33,0}, Y_{58}$
	5	0	$364_1 = \chi_{6,0}, Y_{11}$		45	0	$14300_2 = \chi_{33,1}, Y_{59}$
	6	0	$364_2 = \chi_{6,1}, Y_{12}$		46	0	$19305_1 = \chi_{34,0}, Y_{64}$
	7	0	$715_1 = \chi_{7,0}, Y_{13}$		47	0	$19305_2 = \chi_{34,1}, Y_{65}$
	8	0	$715_2 = \chi_{7,1}, Y_{14}$		48	0	$21450_1 = \chi_{35,0}, Y_{66}$
	9	0	$910_1 = \chi_{8,0}, Y_{15}$		49	0	$21450_2 = \chi_{35,1}, Y_{67}$
	10	0	$910_2 = \chi_{8,1}, Y_{16}$		50	0	$22113_1 = \chi_{36,0}, Y_{68}$
	11	0	$1001_1 = \chi_{9,0}, Y_{17}$		51	0	$22113_2 = \chi_{36,1}, Y_{69}$
	12	0	$1001_2 = \chi_{9,1}, Y_{18}$		52	0	$24024_1 = \chi_{29+}, Y_{70}$
	13	0	$1430_1 = \chi_{10,0}, Y_{19}$		53	0	$25025_1 = \chi_{38,0}, Y_{71}$
	14	0	$1430_2 = \chi_{10,1}, Y_{20}$		54	0	$25025_2 = \chi_{38,1}, Y_{76}$
	15	0	$1638_1 = \chi_{11,0}, Y_{21}$		55	0	$25025_3 = \chi_{39,0}, Y_{72}$
	16	0	$1638_2 = \chi_{11,1}, Y_{22}$		56	0	$25025_4 = \chi_{39,1}, Y_{75}$
	17	0	$2002_1 = \chi_{15,0}, Y_{25}$		57	0	$25025_5 = \chi_{40,0}, Y_{73}$
	18	0	$2002_2 = \chi_{15,1}, Y_{28}$		58	0	$25025_6 = \chi_{40,1}, Y_{74}$
	19	0	$2002_3 = \chi_{16,0}, Y_{26}$		59	0	$27027_1 = \chi_{42,0}, Y_{81}$
	20	0	$2002_4 = \chi_{16,1}, Y_{27}$		60	0	$27027_2 = \chi_{42,1}, Y_{82}$
	21	0	$2925_1 = \chi_{18,0}, Y_{31}$		61	0	$28028_1 = \chi_{43,0}, Y_{83}$
	22	0	$2925_2 = \chi_{18,1}, Y_{32}$		62	0	$28028_2 = \chi_{43,1}, Y_{84}$
	23	0	$3003_1 = \chi_{19,0}, Y_{33}$		63	0	$30030_1 = \chi_{44,0}, Y_{85}$
	24	0	$3003_2 = \chi_{19,1}, Y_{34}$		64	0	$30030_2 = \chi_{44,1}, Y_{86}$
	25	0	$3432_1 = \chi_{12+}, Y_{35}$		65	0	$32032_1 = \chi_{45,0}, Y_{87}$
	26	0	$5005_1 = \chi_{20,0}, Y_{36}$		66	0	$32032_2 = \chi_{45,1}, Y_{88}$
	27	0	$5005_2 = \chi_{20,1}, Y_{37}$		67	0	$34398_1 = \chi_{46,0}, Y_{89}$
	28	0	$6006_1 = \chi_{21,0}, Y_{38}$		68	0	$34398_2 = \chi_{46,1}, Y_{90}$
	29	0	$6006_2 = \chi_{21,1}, Y_{39}$		69	0	$35035_1 = \chi_{47,0}, Y_{91}$
	30	0	$7007_1 = \chi_{22,0}, Y_{40}$		70	0	$35035_2 = \chi_{47,1}, Y_{92}$
	31	0	$7007_2 = \chi_{22,1}, Y_{41}$		71	0	$35100_1 = \chi_{48,0}, Y_{93}$
	32	0	$7722_1 = \chi_{23,0}, Y_{44}$		72	0	$35100_2 = \chi_{48,1}, Y_{94}$
	33	0	$7722_2 = \chi_{23,1}, Y_{45}$		73	0	$42042_1 = \chi_{49,0}, Y_{95}$
	34	0	$9100_1 = \chi_{24,0}, Y_{48}$		74	0	$42042_2 = \chi_{49,1}, Y_{98}$
	35	0	$9100_2 = \chi_{24,1}, Y_{49}$		75	0	$42042_3 = \chi_{50,0}, Y_{96}$
	36	0	$11375_1 = \chi_{27,0}, Y_{50}$		76	0	$42042_4 = \chi_{50,1}, Y_{97}$
	37	0	$11375_2 = \chi_{27,1}, Y_{51}$		77	0	$45045_1 = \chi_{53,0}, Y_{99}$
	38	0	$11583_1 = \chi_{28,0}, Y_{52}$		78	0	$45045_2 = \chi_{53,1}, Y_{100}$
	39	0	$11583_2 = \chi_{28,1}, Y_{53}$		79	0	$50050_1 = \chi_{54,0}, Y_{101}$
	40	0	$12740_1 = \chi_{31,0}, Y_{54}$		80	0	$50050_2 = \chi_{54,1}, Y_{104}$

	blocks	defect	matrix
	81	0	$50050_3 = \chi_{55,0}, Y_{102}$
	82	0	$50050_4 = \chi_{55,1}, Y_{103}$
	83	0	$53625_1 = \chi_{57,0}, Y_{105}$
	84	0	$53625_2 = \chi_{57,1}, Y_{106}$
	85	0	$54054_1 = \chi_{58,0}, Y_{107}$
	86	0	$54054_2 = \chi_{58,1}, Y_{108}$
	87	0	$57330_1 = \chi_{59,0}, Y_{109}$
	88	0	$57330_2 = \chi_{59,1}, Y_{110}$
	89	0	$58968_1 = \chi_{60,0}, Y_{111}$
	90	0	$58968_2 = \chi_{60,1}, Y_{112}$
	91	0	$61425_1 = \chi_{61,0}, Y_{113}$
	92	0	$61425_2 = \chi_{61,1}, Y_{114}$
	93	0	$63700_1 = \chi_{62,0}, Y_{115}$
	94	0	$63700_2 = \chi_{62,1}, Y_{116}$
	95	0	$70070_1 = \chi_{63,0}, Y_{117}$
	96	0	$70070_2 = \chi_{63,1}, Y_{118}$
	97	0	$75075_1 = \chi_{64,0}, Y_{120}$
	98	0	$75075_2 = \chi_{64,1}, Y_{121}$
	99	0	$75075_3 = \chi_{65,0}, Y_{119}$
	100	0	$75075_4 = \chi_{65,1}, Y_{122}$
	101	0	$80080_1 = \chi_{68,0}, Y_{123}$
	102	0	$80080_2 = \chi_{68,1}, Y_{124}$
	103	0	$81081_1 = \chi_{69,0}, Y_{125}$
	104	0	$81081_2 = \chi_{69,1}, Y_{126}$
	105	0	$90090_1 = \chi_{70,0}, Y_{127}$
	106	0	$90090_2 = \chi_{70,1}, Y_{128}$
	107	0	$91000_1 = \chi_{71,0}, Y_{129}$
	108	0	$91000_2 = \chi_{71,1}, Y_{130}$
	109	0	$96525_1 = \chi_{72,0}, Y_{131}$
	110	0	$96525_2 = \chi_{72,1}, Y_{132}$
	111	0	$100100_1 = \chi_{73,0}, Y_{134}$
	112	0	$100100_2 = \chi_{73,1}, Y_{137}$
	113	0	$100100_3 = \chi_{74,0}, Y_{133}$
	114	0	$100100_4 = \chi_{74,1}, Y_{138}$
	115	0	$100100_5 = \chi_{75,0}, Y_{135}$
	116	0	$100100_6 = \chi_{75,1}, Y_{136}$
	117	0	$108108_1 = \chi_{76,0}, Y_{139}$
	118	0	$108108_2 = \chi_{76,1}, Y_{140}$
	119	0	$112112_1 = \chi_{77,0}, Y_{141}$
	120	0	$112112_2 = \chi_{77,1}, Y_{144}$

	blocks	defect	matrix
	121	0	$112112_3 = \chi_{78,0}, Y_{142}$
	122	0	$112112_4 = \chi_{78,1}, Y_{143}$
	123	0	$122850_1 = \chi_{79,0}, Y_{145}$
	124	0	$122850_2 = \chi_{79,1}, Y_{146}$
	125	0	$125125_1 = \chi_{80,0}, Y_{147}$
	126	0	$125125_2 = \chi_{80,1}, Y_{148}$
	127	0	$126126_1 = \chi_{81,0}, Y_{149}$
	128	0	$126126_2 = \chi_{81,1}, Y_{150}$
	129	0	$128700_1 = \chi_{82,0}, Y_{151}$
	130	0	$128700_2 = \chi_{82,1}, Y_{152}$
	131	0	$135135_1 = \chi_{83,0}, Y_{153}$
	132	0	$135135_2 = \chi_{83,1}, Y_{154}$
	133	0	$150150_1 = \chi_{86,0}, Y_{155}$
	134	0	$150150_2 = \chi_{86,1}, Y_{156}$
	135	0	$156000_1 = \chi_{66+}, Y_{157}$
	136	0	$159250_1 = \chi_{87,0}, Y_{158}$
	137	0	$159250_2 = \chi_{87,1}, Y_{159}$
	138	0	$162162_1 = \chi_{88,0}, Y_{160}$
	139	0	$162162_2 = \chi_{88,1}, Y_{161}$
	140	0	$175175_1 = \chi_{89,0}, Y_{162}$
	141	0	$175175_2 = \chi_{89,1}, Y_{163}$
	142	0	$184275_1 = \chi_{90,0}, Y_{164}$
	143	0	$184275_2 = \chi_{90,1}, Y_{165}$
	144	0	$210210_1 = \chi_{91,0}, Y_{166}$
	145	0	$210210_2 = \chi_{91,1}, Y_{167}$
	146	0	$221130_1 = \chi_{92,0}, Y_{168}$
	147	0	$221130_2 = \chi_{92,1}, Y_{169}$
	148	0	$231660_1 = \chi_{93,0}, Y_{170}$
	149	0	$231660_2 = \chi_{93,1}, Y_{171}$
	150	0	$243243_1 = \chi_{94,0}, Y_{172}$
	151	0	$243243_2 = \chi_{94,1}, Y_{173}$
	152	0	$292864_1 = \chi_{84+}, Y_{174}$

$$\begin{array}{ll} Y_2 = 1_2 & Y_{42} = 7601_1 \\ Y_3 = 14_1 & Y_{47} = 8602_2 \\ Y_5 = 76_1 & Y_{60} = 17347_1 \\ Y_{10} = 349_2 & Y_{63} = 18348_2 \\ Y_{23} = 1849_1 & Y_{77} = 25773_1 \\ Y_{30} = 2486_2 & Y_{80} = 26202_2 \end{array}$$