

## $A_{13.2} \pmod{13}$

	blocks	defect	matrix		blocks	defect	matrix
$G :$	1	1	$13 \times 12$		41	0	$4004_2 = \chi_{28,1}, \varphi_{26,1}$
	2	0	$65_1 = \chi_{3,0}, \varphi_{4,0}$		42	0	$4212_1 = \chi_{29,0}, \varphi_{27,0}$
	3	0	$65_2 = \chi_{3,1}, \varphi_{4,1}$		43	0	$4212_2 = \chi_{29,1}, \varphi_{27,1}$
	4	0	$208_1 = \chi_{5,0}, \varphi_{6,0}$		44	0	$4290_1 = \chi_{30,0}, \varphi_{28,0}$
	5	0	$208_2 = \chi_{5,1}, \varphi_{6,1}$		45	0	$4290_2 = \chi_{30,1}, \varphi_{28,1}$
	6	0	$429_1 = \chi_{7,0}, \varphi_{8,0}$		46	0	$8580_1 = \chi_{31+}, \varphi_{29+}$
	7	0	$429_2 = \chi_{7,1}, \varphi_{8,1}$		47	0	$5005_1 = \chi_{33,0}, \varphi_{31,0}$
	8	0	$429_3 = \chi_{8,0}, \varphi_{9,0}$		48	0	$5005_2 = \chi_{33,1}, \varphi_{31,1}$
	9	0	$429_4 = \chi_{8,1}, \varphi_{9,1}$		49	0	$5148_1 = \chi_{34,0}, \varphi_{32,0}$
	10	0	$429_5 = \chi_{9,0}, \varphi_{10,0}$		50	0	$5148_2 = \chi_{34,1}, \varphi_{32,1}$
	11	0	$429_6 = \chi_{9,1}, \varphi_{10,1}$		51	0	$5720_1 = \chi_{35,0}, \varphi_{33,0}$
	12	0	$572_1 = \chi_{13,0}, \varphi_{12,0}$		52	0	$5720_2 = \chi_{35,1}, \varphi_{33,1}$
	13	0	$572_2 = \chi_{13,1}, \varphi_{12,1}$		53	0	$6006_1 = \chi_{36,0}, \varphi_{34,0}$
	14	0	$936_1 = \chi_{15,0}, \varphi_{13,0}$		54	0	$6006_2 = \chi_{36,1}, \varphi_{34,1}$
	15	0	$936_2 = \chi_{15,1}, \varphi_{13,1}$		55	0	$6435_1 = \chi_{37,0}, \varphi_{35,0}$
	16	0	$1287_1 = \chi_{16,0}, \varphi_{14,0}$		56	0	$6435_2 = \chi_{37,1}, \varphi_{35,1}$
	17	0	$1287_2 = \chi_{16,1}, \varphi_{14,1}$		57	0	$6864_1 = \chi_{38,0}, \varphi_{36,0}$
	18	0	$1365_1 = \chi_{17,0}, \varphi_{15,0}$		58	0	$6864_2 = \chi_{38,1}, \varphi_{36,1}$
	19	0	$1365_2 = \chi_{17,1}, \varphi_{15,1}$		59	0	$7371_1 = \chi_{39,0}, \varphi_{37,0}$
	20	0	$1430_1 = \chi_{18,0}, \varphi_{16,0}$		60	0	$7371_2 = \chi_{39,1}, \varphi_{37,1}$
	21	0	$1430_2 = \chi_{18,1}, \varphi_{16,1}$		61	0	$7800_1 = \chi_{40,0}, \varphi_{38,0}$
	22	0	$2574_1 = \chi_{19,0}, \varphi_{17,0}$		62	0	$7800_2 = \chi_{40,1}, \varphi_{38,1}$
	23	0	$2574_2 = \chi_{19,1}, \varphi_{17,1}$		63	0	$16016_1 = \chi_{41+}, \varphi_{39+}$
	24	0	$2574_3 = \chi_{20,0}, \varphi_{18,0}$		64	0	$8580_2 = \chi_{43,0}, \varphi_{41,0}$
	25	0	$2574_4 = \chi_{20,1}, \varphi_{18,1}$		65	0	$8580_3 = \chi_{43,1}, \varphi_{41,1}$
	26	0	$2860_1 = \chi_{21,0}, \varphi_{19,0}$		66	0	$9009_1 = \chi_{44,0}, \varphi_{42,0}$
	27	0	$2860_2 = \chi_{21,1}, \varphi_{19,1}$		67	0	$9009_2 = \chi_{44,1}, \varphi_{42,1}$
	28	0	$3003_1 = \chi_{22,0}, \varphi_{20,0}$		68	0	$9360_1 = \chi_{45,0}, \varphi_{43,0}$
	29	0	$3003_2 = \chi_{22,1}, \varphi_{20,1}$		69	0	$9360_2 = \chi_{45,1}, \varphi_{43,1}$
	30	0	$3432_1 = \chi_{23,0}, \varphi_{21,0}$		70	0	$10296_1 = \chi_{46,0}, \varphi_{44,0}$
	31	0	$3432_2 = \chi_{23,1}, \varphi_{21,1}$		71	0	$10296_2 = \chi_{46,1}, \varphi_{44,1}$
	32	0	$3432_3 = \chi_{24,0}, \varphi_{22,0}$		72	0	$11440_1 = \chi_{47,0}, \varphi_{45,0}$
	33	0	$3432_4 = \chi_{24,1}, \varphi_{22,1}$		73	0	$11440_2 = \chi_{47,1}, \varphi_{45,1}$
	34	0	$3432_5 = \chi_{25,0}, \varphi_{23,0}$		74	0	$11583_1 = \chi_{48,0}, \varphi_{46,0}$
	35	0	$3432_6 = \chi_{25,1}, \varphi_{23,1}$		75	0	$11583_2 = \chi_{48,1}, \varphi_{46,1}$
	36	0	$3575_1 = \chi_{26,0}, \varphi_{24,0}$		76	0	$12012_1 = \chi_{49,0}, \varphi_{47,0}$
	37	0	$3575_2 = \chi_{26,1}, \varphi_{24,1}$		77	0	$12012_2 = \chi_{49,1}, \varphi_{47,1}$
	38	0	$3640_1 = \chi_{27,0}, \varphi_{25,0}$		78	0	$12012_3 = \chi_{50,0}, \varphi_{48,0}$
	39	0	$3640_2 = \chi_{27,1}, \varphi_{25,1}$		79	0	$12012_4 = \chi_{50,1}, \varphi_{48,1}$
	40	0	$4004_1 = \chi_{28,0}, \varphi_{26,0}$		80	0	$12870_1 = \chi_{51,0}, \varphi_{49,0}$

	blocks	defect	matrix
	81	0	$12870_2 = \chi_{51,1}, \varphi_{49,1}$
	82	0	$15015_1 = \chi_{52,0}, \varphi_{50,0}$
	83	0	$15015_2 = \chi_{52,1}, \varphi_{50,1}$
	84	0	$17160_1 = \chi_{53,0}, \varphi_{51,0}$
	85	0	$17160_2 = \chi_{53,1}, \varphi_{51,1}$
	86	0	$20592_1 = \chi_{54,0}, \varphi_{52,0}$
	87	0	$20592_2 = \chi_{54,1}, \varphi_{52,1}$
	88	0	$21450_1 = \chi_{55,0}, \varphi_{53,0}$
	89	0	$21450_2 = \chi_{55,1}, \varphi_{53,1}$
2.G :	90	1	$13 \times 12$
	91	0	$4992_1 = \chi_{60+}, \varphi_{57+}$
	92	0	$4576_1 = \chi_{63,0}, \varphi_{61,0}$

	blocks	defect	matrix
	93	0	$4576_2 = \chi_{63,1}, \varphi_{61,1}$
	94	0	$9152_1 = \chi_{66,0}, \varphi_{63,0}$
	95	0	$9152_2 = \chi_{66,1}, \varphi_{63,1}$
	96	0	$18304_1 = \chi_{67+}, \varphi_{64+}$
	97	0	$18304_2 = \chi_{69+}, \varphi_{66+}$
	98	0	$22464_1 = \chi_{72+}, \varphi_{68+}$
	99	0	$22464_2 = \chi_{74+}, \varphi_{70+}$
	100	0	$13728_1 = \chi_{76,0}, \varphi_{72,0}$
	101	0	$13728_2 = \chi_{76,1}, \varphi_{72,1}$
	102	0	$27456_1 = \chi_{77+}, \varphi_{73+}$
	103	0	$32032_1 = \chi_{79+}, \varphi_{75+}$
	104	0	$41600_1 = \chi_{81+}, \varphi_{77+}$

<b>Block 1:</b>	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{3,0}$	$\varphi_{3,1}$	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{7,0}$	$\varphi_{7,1}$	$\varphi_{11,0}$	$\varphi_{11,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.	.	.	.	.	.	.
$12_1 = \chi_{2,0}$	1	.	1	.	.	.	.	.	.	.	.	.
$12_2 = \chi_{2,1}$	.	1	.	1	.	.	.	.	.	.	.	.
$66_1 = \chi_{4,0}$	.	.	1	.	1	.	.	.	.	.	.	.
$66_2 = \chi_{4,1}$	.	.	.	1	.	1	.	.	.	.	.	.
$220_1 = \chi_{6,0}$	.	.	.	.	1	.	1	.	.	.	.	.
$220_2 = \chi_{6,1}$	.	.	.	.	.	1	.	1	.	.	.	.
$924_1 = \chi_{10+}$	.	.	.	.	.	.	.	.	.	.	1	1
$495_1 = \chi_{12,0}$	.	.	.	.	.	.	1	.	1	.	.	.
$495_2 = \chi_{12,1}$	.	.	.	.	.	.	.	1	.	1	.	.
$792_1 = \chi_{14,0}$	.	.	.	.	.	.	.	.	1	.	1	.
$792_2 = \chi_{14,1}$	.	.	.	.	.	.	.	.	.	1	.	1

$$\begin{array}{ll}
\varphi_{1,0} = 1_1 & \varphi_{5,0} = 165_1 \\
\varphi_{1,1} = 1_2 & \varphi_{5,1} = 165_2 \\
\varphi_{2,0} = 11_1 & \varphi_{7,0} = 330_1 \\
\varphi_{2,1} = 11_2 & \varphi_{7,1} = 330_2 \\
\varphi_{3,0} = 55_1 & \varphi_{11,0} = 462_1 \\
\varphi_{3,1} = 55_2 & \varphi_{11,1} = 462_2
\end{array}$$

<b>Block 90:</b>	$\varphi_{54,0}$	$\varphi_{54,1}$	$\varphi_{55,0}$	$\varphi_{55,1}$	$\varphi_{56,0}$	$\varphi_{56,1}$	$\varphi_{59,0}$	$\varphi_{59,1}$	$\varphi_{60,0}$	$\varphi_{60,1}$	$\varphi_{62,0}$
$64_1 = \chi_{56+}$	1	1	.	.	.	.	.	.	.	.	.
$352_1 = \chi_{58,0}$	1	.	.	1	.	.	.	.	.	.	.
$352_2 = \chi_{58,1}$	.	1	1	.	.	.	.	.	.	.	.
$1728_1 = \chi_{59,0}$	.	.	1	.	.	1	.	.	.	.	.
$1728_2 = \chi_{59,1}$	.	.	.	1	1	.	.	.	.	.	.
$4224_1 = \chi_{62,0}$	.	.	.	.	.	.	.	.	1	.	.
$4224_2 = \chi_{62,1}$	.	.	.	.	.	.	.	.	.	1	.
$4928_1 = \chi_{64,0}$	.	.	.	.	1	.	.	1	.	.	.
$4928_2 = \chi_{64,1}$	.	.	.	.	.	1	1	.	.	.	.
$8800_1 = \chi_{65,0}$	.	.	.	.	.	.	1	.	.	.	.
$8800_2 = \chi_{65,1}$	.	.	.	.	.	.	.	1	.	.	1
$9504_1 = \chi_{71,0}$	.	.	.	.	.	.	.	.	.	1	1
$9504_2 = \chi_{71,1}$	.	.	.	.	.	.	.	.	1	.	.

<b>(Block 90:)</b>	$\varphi_{62,1}$	
$64_1 = \chi_{56+}$	.	$\varphi_{54,0} = 32_1$
$352_1 = \chi_{58,0}$	.	$\varphi_{54,1} = 32_2$
$352_2 = \chi_{58,1}$	.	$\varphi_{55,0} = 320_1$
$1728_1 = \chi_{59,0}$	.	$\varphi_{55,1} = 320_2$
$1728_2 = \chi_{59,1}$	.	$\varphi_{56,0} = 1408_1$
$4224_1 = \chi_{62,0}$	.	$\varphi_{56,1} = 1408_2$
$4224_2 = \chi_{62,1}$	.	$\varphi_{59,0} = 3520_1$
$4928_1 = \chi_{64,0}$	.	$\varphi_{59,1} = 3520_2$
$4928_2 = \chi_{64,1}$	.	$\varphi_{60,0} = 4224_1$
$8800_1 = \chi_{65,0}$	1	$\varphi_{60,1} = 4224_2$
$8800_2 = \chi_{65,1}$	.	$\varphi_{62,0} = 5280_1$
$9504_1 = \chi_{71,0}$	.	$\varphi_{62,1} = 5280_2$
$9504_2 = \chi_{71,1}$	1	