

# $A_{17} \pmod{11}$

	blocks	defect	matrix
$G :$	1	1	$11 \times 10$
	2	1	$11 \times 10$
	3	1	$11 \times 10$
	4	1	$11 \times 10$
	5	1	$11 \times 10$
	6	1	$7 \times 5$
	7	0	$4862_1 = \chi_{13}, \varphi_{13}$
	8	0	$5236_1 = \chi_{14}, \varphi_{14}$
	9	0	$6435_1 = \chi_{17}, \varphi_{17}$
	10	0	$6435_2 = \chi_{18}, \varphi_{18}$
	11	0	$8008_1 = \chi_{20}, \varphi_{20}$
	12	0	$11440_1 = \chi_{21}, \varphi_{21}$
	13	0	$17017_1 = \chi_{23}, \varphi_{24}$
	14	0	$19448_1 = \chi_{24}, \varphi_{27}$
	15	0	$20944_1 = \chi_{26}, \varphi_{28}$
	16	0	$37400_1 = \chi_{30}, \varphi_{31}$
	17	0	$48620_1 = \chi_{33}, \varphi_{33}$
	18	0	$62832_1 = \chi_{34}, \varphi_{34}$
	19	0	$65637_1 = \chi_{35}, \varphi_{36}$
	20	0	$68068_1 = \chi_{36}, \varphi_{37}$
	21	0	$85085_1 = \chi_{39}, \varphi_{41}$
	22	0	$87516_1 = \chi_{40}, \varphi_{42}$
	23	0	$116688_1 = \chi_{41}, \varphi_{46}$
	24	0	$116688_2 = \chi_{42}, \varphi_{47}$
	25	0	$121550_1 = \chi_{43}, \varphi_{48}$
	26	0	$134640_1 = \chi_{48}, \varphi_{50}$
	27	0	$136136_1 = \chi_{49}, \varphi_{51}$
	28	0	$145860_1 = \chi_{50}, \varphi_{52}$
	29	0	$155584_1 = \chi_{53}, \varphi_{54}$
	30	0	$157080_1 = \chi_{54}, \varphi_{55}$
	31	0	$170170_1 = \chi_{56}, \varphi_{56}$
	32	0	$194480_1 = \chi_{57}, \varphi_{58}$
	33	0	$204204_1 = \chi_{58}, \varphi_{61}$
	34	0	$209440_1 = \chi_{60}, \varphi_{62}$
	35	0	$233376_1 = \chi_{61}, \varphi_{63}$
	36	0	$238238_1 = \chi_{62}, \varphi_{64}$
	37	0	$243100_1 = \chi_{63}, \varphi_{65}$
	38	0	$272272_1 = \chi_{66}, \varphi_{69}$
	39	0	$272272_2 = \chi_{67}, \varphi_{70}$
	40	0	$272272_3 = \chi_{68}, \varphi_{71}$

	blocks	defect	matrix
	41	0	$272272_4 = \chi_{69}, \varphi_{72}$
	42	0	$291720_1 = \chi_{70}, \varphi_{75}$
	43	0	$327250_1 = \chi_{72}, \varphi_{77}$
	44	0	$340340_1 = \chi_{74}, \varphi_{79}$
	45	0	$340340_2 = \chi_{75}, \varphi_{80}$
	46	0	$364650_1 = \chi_{78}, \varphi_{81}$
	47	0	$388960_1 = \chi_{79}, \varphi_{82}$
	48	0	$408408_1 = \chi_{81}, \varphi_{83}$
	49	0	$466752_1 = \chi_{83}, \varphi_{85}$
	50	0	$486200_1 = \chi_{84}, \varphi_{87}$
	51	0	$523600_1 = \chi_{85}, \varphi_{89}$
	52	0	$544544_1 = \chi_{86}, \varphi_{90}$
	53	0	$565488_1 = \chi_{88}, \varphi_{91}$
	54	0	$583440_1 = \chi_{89}, \varphi_{92}$
	55	0	$583440_2 = \chi_{90}, \varphi_{93}$
	56	0	$586432_1 = \chi_{91}, \varphi_{94}$
	57	0	$631125_1 = \chi_{94}, \varphi_{96}$
	$58 = \overline{57}$	0	$631125_2 = \chi_{95}, \varphi_{97}$
	59	0	$680680_1 = \chi_{96}, \varphi_{98}$
	60	0	$680680_2 = \chi_{97}, \varphi_{99}$
	61	0	$700128_1 = \chi_{98}, \varphi_{100}$
	62	0	$729300_1 = \chi_{99}, \varphi_{101}$
	$63 = \overline{62}$	0	$729300_2 = \chi_{100}, \varphi_{102}$
	64	0	$765765_1 = \chi_{103}, \varphi_{105}$
	$65 = \overline{64}$	0	$765765_2 = \chi_{104}, \varphi_{106}$
	66	0	$816816_1 = \chi_{105}, \varphi_{107}$
	67	0	$850850_1 = \chi_{107}, \varphi_{109}$
	68	0	$908820_1 = \chi_{109}, \varphi_{111}$
	69	0	$918918_1 = \chi_{110}, \varphi_{112}$
	70	0	$952952_1 = \chi_{111}, \varphi_{113}$
	71	0	$972400_1 = \chi_{112}, \varphi_{114}$
	72	0	$972400_2 = \chi_{113}, \varphi_{115}$
	73	0	$1021020_1 = \chi_{114}, \varphi_{116}$
	74	0	$1047200_1 = \chi_{115}, \varphi_{117}$
	75	0	$1050192_1 = \chi_{116}, \varphi_{118}$
	76	0	$1089088_1 = \chi_{119}, \varphi_{119}$
	77	0	$1089088_2 = \chi_{120}, \varphi_{120}$
	78	0	$1089088_3 = \chi_{121}, \varphi_{121}$
	79	0	$1361360_1 = \chi_{126}, \varphi_{125}$
	80	0	$1361360_2 = \chi_{127}, \varphi_{126}$

	blocks	defect	matrix
	81	0	1361360 <sub>3</sub> = $\chi_{128}, \varphi_{127}$
	82	0	1361360 <sub>4</sub> = $\chi_{129}, \varphi_{128}$
	83	0	1429428 <sub>1</sub> = $\chi_{130}, \varphi_{131}$
	84	0	1454112 <sub>1</sub> = $\chi_{131}, \varphi_{132}$
	85	0	1570800 <sub>1</sub> = $\chi_{133}, \varphi_{133}$
	86	0	1633632 <sub>1</sub> = $\chi_{135}, \varphi_{134}$
	87	0	1633632 <sub>2</sub> = $\chi_{136}, \varphi_{135}$
	88	0	1701700 <sub>1</sub> = $\chi_{137}, \varphi_{136}$
	89	0	1701700 <sub>2</sub> = $\chi_{138}, \varphi_{137}$
	90	0	1750320 <sub>1</sub> = $\chi_{139}, \varphi_{138}$
	91	0	1750320 <sub>2</sub> = $\chi_{140}, \varphi_{139}$
	92	0	1832600 <sub>1</sub> = $\chi_{141}, \varphi_{140}$
	93	0	1905904 <sub>1</sub> = $\chi_{142}, \varphi_{141}$
	94	0	2362932 <sub>1</sub> = $\chi_{145}, \varphi_{142}$
	95	0	2431000 <sub>1</sub> = $\chi_{146}, \varphi_{143}$
	96	0	2450448 <sub>1</sub> = $\chi_{149}, \varphi_{145}$
	97	0	2552550 <sub>1</sub> = $\chi_{151}, \varphi_{146}$
	98	0	2722720 <sub>1</sub> = $\chi_{153}, \varphi_{147}$
	99	0	2858856 <sub>1</sub> = $\chi_{154}, \varphi_{148}$
	100	0	3573570 <sub>1</sub> = $\chi_{155}, \varphi_{149}$

<b>Block 1:</b>	$\varphi_1$	$\varphi_{12}$	$\varphi_{19}$	$\varphi_{30}$	$\varphi_{32}$	$\varphi_{35}$	$\varphi_{40}$	$\varphi_{44}$	$\varphi_{59}$	$\varphi_{60}$
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.
4368 <sub>1</sub> = $\chi_{12}$	.	1	.	.	.	.	.	.	.	.
7072 <sub>1</sub> = $\chi_{19}$	1	.	1	.	.	.	.	.	.	.
38675 <sub>1</sub> = $\chi_{31}$	.	1	.	1	.	.	.	.	.	.
46410 <sub>1</sub> = $\chi_{32}$	.	.	1	.	1	.	.	.	.	.
123760 <sub>2</sub> = $\chi_{45}$	.	.	.	.	1	.	1	.	.	.
148512 <sub>1</sub> = $\chi_{51}$	.	.	.	.	.	1	1	.	.	.
148512 <sub>2</sub> = $\chi_{52}$	.	.	.	1	.	.	.	1	.	.
259896 <sub>1</sub> = $\chi_{65}$	.	.	.	.	.	1	.	.	1	.
318240 <sub>1</sub> = $\chi_{71}$	.	.	.	.	.	.	.	1	.	1
399840 <sub>1</sub> = $\chi_{80}$	.	.	.	.	.	.	.	.	1	1

$$\begin{array}{ll}
\varphi_1 & = 1_1 \\
\varphi_{12} & = 4368_1 \\
\varphi_{19} & = 7071_1 \\
\varphi_{30} & = 34307_1 \\
\varphi_{32} & = 39339_1 \\
\varphi_{35} & = 64091_1 \\
\varphi_{40} & = 84421_1 \\
\varphi_{44} & = 114205_1 \\
\varphi_{59} & = 195805_1 \\
\varphi_{60} & = 204035_1
\end{array}$$

<b>Block 2:</b>	$\varphi_2$	$\varphi_9$	$\varphi_{16}$	$\varphi_{39}$	$\varphi_{53}$	$\varphi_{73}$	$\varphi_{74}$	$\varphi_{84}$	$\varphi_{86}$	$\varphi_{95}$
$16_1 = \chi_2$	1	.	.	.	.	.	.	.	.	.
$1820_1 = \chi_9$	.	1	.	.	.	.	.	.	.	.
$6188_1 = \chi_{16}$	1	.	1	.	.	.	.	.	.	.
$74256_1 = \chi_{38}$	.	1	.	1	.	.	.	.	.	.
$159120_1 = \chi_{55}$	.	.	1	.	1	.	.	.	.	.
$353600_1 = \chi_{77}$	.	.	.	1	.	.	1	.	.	.
$618800_1 = \chi_{92}$	.	.	.	.	1	.	.	1	.	.
$742560_1 = \chi_{101}$	.	.	.	.	.	1	.	.	1	.
$749700_1 = \chi_{102}$	.	.	.	.	.	.	1	.	1	.
$891072_1 = \chi_{108}$	.	.	.	.	.	1	.	.	.	1
$1082900_1 = \chi_{117}$	.	.	.	.	.	.	.	1	.	1

$$\begin{aligned}
\varphi_2 &= 16_1 & \varphi_{73} &= 274024_1 \\
\varphi_9 &= 1820_1 & \varphi_{74} &= 281164_1 \\
\varphi_{16} &= 6172_1 & \varphi_{84} &= 465852_1 \\
\varphi_{39} &= 72436_1 & \varphi_{86} &= 468536_1 \\
\varphi_{53} &= 152948_1 & \varphi_{95} &= 617048_1
\end{aligned}$$

<b>Block 3:</b>	$\varphi_3$	$\varphi_{11}$	$\varphi_{15}$	$\varphi_{26}$	$\varphi_{57}$	$\varphi_{66}$	$\varphi_{67}$	$\varphi_{110}$	$\varphi_{122}$	$\varphi_{129}$
$119_1 = \chi_3$	1	.	.	.	.	.	.	.	.	.
$3808_1 = \chi_{11}$	1	1	.	.	.	.	.	.	.	.
$5355_1 = \chi_{15}$	.	.	1	.	.	.	.	.	.	.
$24752_1 = \chi_{27}$	.	.	1	1	.	.	.	.	.	.
$205632_1 = \chi_{59}$	.	.	.	1	1	.	.	.	.	.
$247520_1 = \chi_{64}$	.	1	.	.	.	1	.	.	.	.
$433160_1 = \chi_{82}$	.	.	.	.	1	.	1	.	.	.
$1113840_1 = \chi_{122}$	.	.	.	.	.	1	.	1	.	.
$1336608_1 = \chi_{125}$	.	.	.	.	.	.	1	.	1	.
$2255526_1 = \chi_{144}$	.	.	.	.	.	.	.	1	.	1
$2475200_1 = \chi_{150}$	.	.	.	.	.	.	.	.	1	1

$$\begin{aligned}
\varphi_3 &= 119_1 & \varphi_{66} &= 243831_1 \\
\varphi_{11} &= 3689_1 & \varphi_{67} &= 246925_1 \\
\varphi_{15} &= 5355_1 & \varphi_{110} &= 870009_1 \\
\varphi_{26} &= 19397_1 & \varphi_{122} &= 1089683_1 \\
\varphi_{57} &= 186235_1 & \varphi_{129} &= 1385517_1
\end{aligned}$$

<b>Block 4:</b>	$\varphi_4$	$\varphi_6$	$\varphi_{29}$	$\varphi_{38}$	$\varphi_{43}$	$\varphi_{68}$	$\varphi_{76}$	$\varphi_{104}$	$\varphi_{124}$	$\varphi_{130}$
$120_1 = \chi_4$	1	.	.	.	.	.	.	.	.	.
$560_1 = \chi_6$	.	1	.	.	.	.	.	.	.	.
$33320_1 = \chi_{28}$	1	.	1	.	.	.	.	.	.	.
$70720_1 = \chi_{37}$	.	1	.	1	.	.	.	.	.	.
$123760_1 = \chi_{44}$	.	.	1	.	1	.	.	.	.	.
$333200_1 = \chi_{73}$	.	.	.	1	.	1	.	.	.	.
$556920_1 = \chi_{87}$	.	.	.	.	.	1	1	.	.	.
$848640_1 = \chi_{106}$	.	.	.	.	1	.	.	1	.	.
$1485120_1 = \chi_{132}$	.	.	.	.	.	.	1	.	1	.
$2165800_1 = \chi_{143}$	.	.	.	.	.	.	.	1	.	1
$2598960_1 = \chi_{152}$	.	.	.	.	.	.	.	.	1	1

$$\begin{aligned}
\varphi_4 &= 120_1 & \varphi_{68} &= 263040_1 \\
\varphi_6 &= 560_1 & \varphi_{76} &= 293880_1 \\
\varphi_{29} &= 33200_1 & \varphi_{104} &= 758080_1 \\
\varphi_{38} &= 70160_1 & \varphi_{124} &= 1191240_1 \\
\varphi_{43} &= 90560_1 & \varphi_{130} &= 1407720_1
\end{aligned}$$

<b>Block 5:</b>	$\varphi_5$	$\varphi_8$	$\varphi_{10}$	$\varphi_{23}$	$\varphi_{25}$	$\varphi_{49}$	$\varphi_{78}$	$\varphi_{88}$	$\varphi_{103}$	$\varphi_{108}$
$544_1 = \chi_5$	1	.	.	.	.	.	.	.	.	.
$1700_1 = \chi_8$	1	1	.	.	.	.	.	.	.	.
$3536_1 = \chi_{10}$	.	.	1	.	.	.	.	.	.	.
$20400_1 = \chi_{25}$	.	.	1	1	.	.	.	.	.	.
$35700_1 = \chi_{29}$	.	.	.	1	1	.	.	.	.	.
$129948_2 = \chi_{47}$	.	1	.	.	.	1	.	.	.	.
$346528_1 = \chi_{76}$	.	.	.	.	1	.	1	.	.	.
$618800_2 = \chi_{93}$	.	.	.	.	.	1	.	1	.	.
$1082900_2 = \chi_{118}$	.	.	.	.	.	.	1	.	1	.
$1326000_1 = \chi_{124}$	.	.	.	.	.	.	.	1	.	1
$1591200_1 = \chi_{134}$	.	.	.	.	.	.	.	.	1	1

$$\begin{aligned}
\varphi_5 &= 544_1 & \varphi_{49} &= 128792_1 \\
\varphi_8 &= 1156_1 & \varphi_{78} &= 327692_1 \\
\varphi_{10} &= 3536_1 & \varphi_{88} &= 490008_1 \\
\varphi_{23} &= 16864_1 & \varphi_{103} &= 755208_1 \\
\varphi_{25} &= 18836_1 & \varphi_{108} &= 835992_1
\end{aligned}$$

<b>Block 6:</b>	$\varphi_7$	$\varphi_{22}$	$\varphi_{45}$	$\varphi_{123}$	$\varphi_{144}$
$1105_1 = \chi_7$	1	.	.	.	.
$15912_1 = \chi_{22}$	1	1	.	.	.
$129948_1 = \chi_{46}$	.	1	1	.	.
$1299480_1 = \chi_{123}$	.	.	1	1	.
$2436525_1 = \chi_{147}$	.	.	.	.	1
$2436525_2 = \chi_{148}$	.	.	.	.	1
$3620864_1 = \chi_{156}$	.	.	.	1	1

$$\begin{aligned} \varphi_7 &= 1105_1 \\ \varphi_{22} &= 14807_1 \\ \varphi_{45} &= 115141_1 \\ \varphi_{123} &= 1184339_1 \\ \varphi_{144} &= 2436525_1 \end{aligned}$$