

# $A_{15} \pmod{11}$

	blocks	defect	matrix
$G :$	1	1	$11 \times 10$
	2	1	$11 \times 10$
	3	1	$7 \times 5$
	4	0	$715_1 = \chi_7, \varphi_7$
	5	0	$1001_1 = \chi_9, \varphi_9$
	6	0	$1430_1 = \chi_{10}, \varphi_{10}$
	7	0	$1716_1 = \chi_{12}, \varphi_{12}$
	$8 = \bar{7}$	0	$1716_2 = \chi_{13}, \varphi_{13}$
	9	0	$1925_1 = \chi_{14}, \varphi_{14}$
	10	0	$2002_1 = \chi_{15}, \varphi_{15}$
	11	0	$2002_2 = \chi_{16}, \varphi_{16}$
	12	0	$3003_1 = \chi_{19}, \varphi_{19}$
	13	0	$5005_1 = \chi_{20}, \varphi_{20}$
	14	0	$6006_1 = \chi_{21}, \varphi_{21}$
	15	0	$7007_1 = \chi_{22}, \varphi_{25}$
	16	0	$7722_1 = \chi_{23}, \varphi_{26}$
	17	0	$11088_1 = \chi_{26}, \varphi_{28}$
	18	0	$11583_1 = \chi_{28}, \varphi_{29}$
	19	0	$12012_1 = \chi_{29}, \varphi_{30}$
	20	0	$12012_2 = \chi_{30}, \varphi_{31}$
	21	0	$14300_1 = \chi_{33}, \varphi_{33}$
	22	0	$19305_1 = \chi_{34}, \varphi_{34}$
	23	0	$21450_1 = \chi_{35}, \varphi_{36}$
	24	0	$24948_1 = \chi_{37}, \varphi_{37}$
	25	0	$25025_1 = \chi_{38}, \varphi_{38}$
	26	0	$25025_2 = \chi_{39}, \varphi_{39}$
	27	0	$25025_3 = \chi_{40}, \varphi_{40}$
	28	0	$26950_1 = \chi_{41}, \varphi_{42}$
	29	0	$27027_1 = \chi_{42}, \varphi_{43}$
	30	0	$28028_1 = \chi_{43}, \varphi_{45}$
	31	0	$30030_1 = \chi_{44}, \varphi_{46}$
	32	0	$32032_1 = \chi_{45}, \varphi_{47}$
	33	0	$35035_1 = \chi_{47}, \varphi_{48}$
	34	0	$42042_1 = \chi_{49}, \varphi_{50}$

	blocks	defect	matrix
	35	0	$42042_2 = \chi_{50}, \varphi_{51}$
	36	0	$43120_1 = \chi_{51}, \varphi_{52}$
	37	0	$44550_1 = \chi_{52}, \varphi_{53}$
	38	0	$45045_1 = \chi_{53}, \varphi_{55}$
	39	0	$50050_1 = \chi_{54}, \varphi_{56}$
	40	0	$50050_2 = \chi_{55}, \varphi_{57}$
	41	0	$51975_1 = \chi_{56}, \varphi_{58}$
	42	0	$53625_1 = \chi_{57}, \varphi_{60}$
	43	0	$54054_1 = \chi_{58}, \varphi_{61}$
	44	0	$70070_1 = \chi_{63}, \varphi_{63}$
	45	0	$75075_1 = \chi_{64}, \varphi_{64}$
	46	0	$75075_2 = \chi_{65}, \varphi_{65}$
	47	0	$80080_1 = \chi_{68}, \varphi_{67}$
	48	0	$81081_1 = \chi_{69}, \varphi_{68}$
	49	0	$90090_1 = \chi_{70}, \varphi_{69}$
	50	0	$96525_1 = \chi_{72}, \varphi_{70}$
	51	0	$100100_1 = \chi_{73}, \varphi_{71}$
	52	0	$100100_2 = \chi_{74}, \varphi_{72}$
	53	0	$100100_3 = \chi_{75}, \varphi_{73}$
	54	0	$108108_1 = \chi_{76}, \varphi_{75}$
	55	0	$112112_1 = \chi_{77}, \varphi_{76}$
	56	0	$112112_2 = \chi_{78}, \varphi_{77}$
	57	0	$125125_1 = \chi_{80}, \varphi_{79}$
	58	0	$126126_1 = \chi_{81}, \varphi_{80}$
	59	0	$128700_1 = \chi_{82}, \varphi_{81}$
	60	0	$135135_1 = \chi_{83}, \varphi_{82}$
	61	0	$146432_1 = \chi_{84}, \varphi_{83}$
	62	0	$146432_2 = \chi_{85}, \varphi_{84}$
	63	0	$150150_1 = \chi_{86}, \varphi_{85}$
	64	0	$162162_1 = \chi_{88}, \varphi_{86}$
	65	0	$175175_1 = \chi_{89}, \varphi_{87}$
	66	0	$210210_1 = \chi_{91}, \varphi_{88}$
	67	0	$231660_1 = \chi_{93}, \varphi_{89}$
	68	0	$243243_1 = \chi_{94}, \varphi_{90}$

<b>Block 1:</b>	$\varphi_1$	$\varphi_6$	$\varphi_{11}$	$\varphi_{17}$	$\varphi_{23}$	$\varphi_{24}$	$\varphi_{27}$	$\varphi_{41}$	$\varphi_{44}$	$\varphi_{49}$
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.
$364_1 = \chi_6$	.	1	.	.	.	.	.	.	.	.
$1638_1 = \chi_{11}$	1	.	1	.	.	.	.	.	.	.
$2925_1 = \chi_{18}$	.	1	.	1	.	.	.	.	.	.
$9450_1 = \chi_{25}$	.	.	.	1	.	1	.	.	.	.
$11375_1 = \chi_{27}$	.	.	1	.	.	.	1	.	.	.
$13650_1 = \chi_{32}$	.	.	.	.	1	1	.	.	.	.
$34398_1 = \chi_{46}$	.	.	.	.	1	.	.	.	1	.
$35100_1 = \chi_{48}$	.	.	.	.	.	.	1	1	.	.
$61425_1 = \chi_{61}$	.	.	.	.	.	.	.	1	.	1
$63700_1 = \chi_{62}$	.	.	.	.	.	.	.	.	1	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_6 &= 364_1 \\ \varphi_{11} &= 1637_1 \\ \varphi_{17} &= 2561_1 \\ \varphi_{23} &= 6761_1 \\ \varphi_{24} &= 6889_1 \\ \varphi_{27} &= 9738_1 \\ \varphi_{41} &= 25362_1 \\ \varphi_{44} &= 27637_1 \\ \varphi_{49} &= 36063_1 \end{aligned}$$

<b>Block 2:</b>	$\varphi_2$	$\varphi_4$	$\varphi_8$	$\varphi_{18}$	$\varphi_{22}$	$\varphi_{35}$	$\varphi_{59}$	$\varphi_{62}$	$\varphi_{74}$	$\varphi_{78}$
$14_1 = \chi_2$	1	.	.	.	.	.	.	.	.	.
$91_1 = \chi_4$	.	1	.	.	.	.	.	.	.	.
$910_1 = \chi_8$	1	.	1	.	.	.	.	.	.	.
$2835_1 = \chi_{17}$	.	1	.	1	.	.	.	.	.	.
$9100_1 = \chi_{24}$	.	.	.	1	1	.	.	.	.	.
$22113_1 = \chi_{36}$	.	.	1	.	.	1	.	.	.	.
$58968_1 = \chi_{60}$	.	.	.	.	1	.	1	.	.	.
$91000_1 = \chi_{71}$	.	.	.	.	.	1	.	1	.	.
$159250_1 = \chi_{87}$	.	.	.	.	.	.	1	.	1	.
$184275_1 = \chi_{90}$	.	.	.	.	.	.	.	1	.	1
$221130_1 = \chi_{92}$	.	.	.	.	.	.	.	.	1	1

$$\begin{aligned} \varphi_2 &= 14_1 & \varphi_{35} &= 21217_1 \\ \varphi_4 &= 91_1 & \varphi_{59} &= 52612_1 \\ \varphi_8 &= 896_1 & \varphi_{62} &= 69783_1 \\ \varphi_{18} &= 2744_1 & \varphi_{74} &= 106638_1 \\ \varphi_{22} &= 6356_1 & \varphi_{78} &= 114492_1 \end{aligned}$$

<b>Block 3:</b>	$\varphi_3$	$\varphi_5$	$\varphi_{32}$	$\varphi_{54}$	$\varphi_{66}$
$90_1 = \chi_3$	1	.	.	.	.
$350_1 = \chi_5$	1	1	.	.	.
$12740_1 = \chi_{31}$	.	1	1	.	.
$57330_1 = \chi_{59}$	.	.	1	1	.
$78000_1 = \chi_{66}$	.	.	.	.	1
$78000_2 = \chi_{67}$	.	.	.	.	1
$122850_1 = \chi_{79}$	.	.	.	1	1

$$\begin{aligned} \varphi_3 &= 90_1 \\ \varphi_5 &= 260_1 \\ \varphi_{32} &= 12480_1 \\ \varphi_{54} &= 44850_1 \\ \varphi_{66} &= 78000_1 \end{aligned}$$