

# $L_6(2) \pmod{7}$

	blocks	defect	matrix
$G :$	1	2	$20 \times 9$
	2	1	$5 \times 3$
	3	0	$588_1 = \chi_4, \varphi_4$
	4	1	$5 \times 3$
	5	0	$4557_1 = \chi_{13}, \varphi_{12}$
	6	0	$9114_1 = \chi_{16}, \varphi_{13}$
	7	0	$9114_2 = \chi_{17}, \varphi_{14}$
	8	1	$7 \times 1$
	9	0	$13671_1 = \chi_{32}, \varphi_{19}$
	10	0	$13671_2 = \chi_{33}, \varphi_{20}$
	11	0	$13671_3 = \chi_{34}, \varphi_{21}$
	$12 = \overline{11}$	0	$13671_4 = \chi_{35}, \varphi_{22}$
	13	0	$13671_5 = \chi_{36}, \varphi_{23}$
	$14 = \overline{13}$	0	$13671_6 = \chi_{37}, \varphi_{24}$
	15	0	$18228_1 = \chi_{39}, \varphi_{25}$
	16	0	$18816_1 = \chi_{40}, \varphi_{26}$
	17	0	$19845_1 = \chi_{41}, \varphi_{27}$
	$18 = \overline{17}$	0	$19845_2 = \chi_{42}, \varphi_{28}$
	19	0	$19845_3 = \chi_{43}, \varphi_{29}$
	$20 = \overline{19}$	0	$19845_4 = \chi_{44}, \varphi_{30}$
	21	0	$19845_5 = \chi_{45}, \varphi_{31}$
	$22 = \overline{21}$	0	$19845_6 = \chi_{46}, \varphi_{32}$
	23	0	$27342_1 = \chi_{49}, \varphi_{34}$
	24	0	$27342_2 = \chi_{50}, \varphi_{35}$
	$25 = \overline{24}$	0	$27342_3 = \chi_{51}, \varphi_{36}$
	26	0	$36456_1 = \chi_{58}, \varphi_{38}$
	27	0	$36456_2 = \chi_{59}, \varphi_{39}$

<b>Block 1:</b>	$\varphi_1$	$\varphi_2$	$\varphi_6$	$\varphi_7$	$\varphi_8$	$\varphi_{10}$	$\varphi_{11}$	$\varphi_{17}$	$\varphi_{33}$	
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	
$62_1 = \chi_2$	1	1	.	.	.	.	.	.	.	
$744_1 = \chi_6$	.	1	1	.	.	.	.	.	.	
$1240_1 = \chi_7$	.	1	.	1	.	.	.	.	.	
$1395_1 = \chi_8$	.	.	.	.	1	.	.	.	.	$\varphi_1 = 1_1$
$1395_2 = \chi_9$	.	.	.	.	1	.	.	.	.	$\varphi_2 = 61_1$
$4185_1 = \chi_{10}$	.	.	.	.	.	1	.	.	.	$\varphi_6 = 683_1$
$4185_2 = \chi_{11}$	.	.	.	.	.	1	.	.	.	$\varphi_7 = 1179_1$
$5952_1 = \chi_{14}$	1	.	.	.	1	.	1	.	.	$\varphi_8 = 1395_1$
$6480_1 = \chi_{15}$	1	1	1	1	.	.	1	.	.	$\varphi_{10} = 4185_1$
$9920_1 = \chi_{27}$	.	.	.	1	.	1	1	.	.	$\varphi_{11} = 4556_1$
$11160_1 = \chi_{28}$	.	.	.	.	.	.	.	1	.	$\varphi_{17} = 11160_1$
$11160_2 = \chi_{29}$	.	.	.	.	.	.	.	1	.	$\varphi_{33} = 20925_1$
$12555_1 = \chi_{30}$	.	.	.	.	1	.	.	1	.	
$25110_1 = \chi_{47}$	.	.	.	.	.	1	.	.	1	
$25110_2 = \chi_{48}$	.	.	.	.	.	1	.	.	1	
$31744_1 = \chi_{54}$	.	.	1	.	1	1	1	.	1	
$32768_1 = \chi_{55}$	.	.	1	.	.	.	.	1	1	
$33480_1 = \chi_{56}$	.	.	.	.	1	.	.	1	1	
$33480_2 = \chi_{57}$	.	.	.	.	1	.	.	1	1	

<b>Block 2:</b>	$\varphi_3$	$\varphi_9$	$\varphi_{16}$	
$217_1 = \chi_3$	1	.	.	$\varphi_3 = 217_1$
$4340_1 = \chi_{12}$	1	1	.	$\varphi_9 = 4123_1$
$9765_2 = \chi_{19}$	.	.	1	$\varphi_{16} = 9765_2$
$9765_3 = \chi_{20}$	.	.	1	
$13888_1 = \chi_{38}$	.	1	1	

<b>Block 4:</b>	$\varphi_5$	$\varphi_{18}$	$\varphi_{37}$	
$651_1 = \chi_5$	1	.	.	$\varphi_5 = 651_1$
$13020_1 = \chi_{31}$	1	1	.	$\varphi_{18} = 12369_1$
$29295_1 = \chi_{52}$	.	.	1	$\varphi_{37} = 29295_1$
$29295_2 = \chi_{53}$	.	.	1	
$41664_1 = \chi_{60}$	.	1	1	

<b>Block 8:</b>	$\varphi_{15}$
$9765_1 = \chi_{18}$	1
$9765_4 = \chi_{21}$	1
$9765_5 = \chi_{22}$	1
$9765_6 = \chi_{23}$	1
$9765_7 = \chi_{24}$	1
$9765_8 = \chi_{25}$	1
$9765_9 = \chi_{26}$	1

$$\varphi_{15} = 9765_1$$