

## $L_2(31).2 \pmod{3}$

	blocks	defect	matrix		blocks	defect	matrix
$G :$	1	1	$3 \times 2$	$2.G :$	22	1	$3 \times 1$
	2	1	$3 \times 2$		23	0	$30_{16} = \chi_{21,0}, \varphi_{16,0}$
	3	0	$30_1 = \chi_{2+}, \varphi_{2+}$		24	0	$30_{17} = \chi_{21,1}, \varphi_{16,1}$
	4	0	$30_2 = \chi_{4,0}, \varphi_{4,0}$		25	0	$30_{18} = \chi_{22,0}, \varphi_{17,0}$
	5	0	$30_3 = \chi_{4,1}, \varphi_{4,1}$		26	0	$30_{19} = \chi_{22,1}, \varphi_{17,1}$
	6	0	$30_4 = \chi_{5,0}, \varphi_{5,0}$		27	0	$30_{20} = \chi_{23,0}, \varphi_{18,0}$
	7	0	$30_5 = \chi_{5,1}, \varphi_{5,1}$		28	0	$30_{21} = \chi_{23,1}, \varphi_{18,1}$
	8	0	$30_6 = \chi_{6,0}, \varphi_{6,0}$		29	0	$30_{22} = \chi_{24,0}, \varphi_{19,0}$
	9	0	$30_7 = \chi_{6,1}, \varphi_{6,1}$		30	0	$30_{23} = \chi_{24,1}, \varphi_{19,1}$
	10	0	$30_8 = \chi_{7,0}, \varphi_{7,0}$		31	0	$30_{24} = \chi_{25,0}, \varphi_{20,0}$
	11	0	$30_9 = \chi_{7,1}, \varphi_{7,1}$		32	0	$30_{25} = \chi_{25,1}, \varphi_{20,1}$
	12	0	$30_{10} = \chi_{8,0}, \varphi_{8,0}$		33	0	$30_{26} = \chi_{26,0}, \varphi_{21,0}$
	13	0	$30_{11} = \chi_{8,1}, \varphi_{8,1}$		34	0	$30_{27} = \chi_{26,1}, \varphi_{21,1}$
	14	0	$30_{12} = \chi_{9,0}, \varphi_{9,0}$		35	0	$30_{28} = \chi_{27,0}, \varphi_{22,0}$
	15	0	$30_{13} = \chi_{9,1}, \varphi_{9,1}$		36	0	$30_{29} = \chi_{27,1}, \varphi_{22,1}$
	16	0	$30_{14} = \chi_{10,0}, \varphi_{10,0}$		37	0	$30_{30} = \chi_{28,0}, \varphi_{23,0}$
	17	0	$30_{15} = \chi_{10,1}, \varphi_{10,1}$		38	0	$30_{31} = \chi_{28,1}, \varphi_{23,1}$
	18	1	$3 \times 1$		39	1	$3 \times 1$
	19	1	$3 \times 1$		40	1	$3 \times 1$
	20	1	$3 \times 1$		41	1	$3 \times 1$
	21	1	$3 \times 1$		42	1	$3 \times 1$

Block 1:	$\varphi_{1,0}$	$\varphi_{11,0}$
$1_1 = \chi_{1,0}$	1	.
$31_1 = \chi_{11,0}$	.	1
$32_1 = \chi_{12,0}$	1	1

$$\begin{aligned} \varphi_{1,0} &= 1_1 \\ \varphi_{11,0} &= 31_1 \end{aligned}$$

Block 2:	$\varphi_{1,1}$	$\varphi_{11,1}$
$1_2 = \chi_{1,1}$	1	.
$31_2 = \chi_{11,1}$	.	1
$32_2 = \chi_{12,1}$	1	1

$$\begin{aligned} \varphi_{1,1} &= 1_2 \\ \varphi_{11,1} &= 31_2 \end{aligned}$$

Block 18:	$\varphi_{12,0}$
$32_3 = \chi_{13,0}$	1
$32_7 = \chi_{15,0}$	1
$32_{11} = \chi_{17,0}$	1

$$\varphi_{12,0} = 32_1$$

Block 19:	$\varphi_{12,1}$	
$32_4 = \chi_{13,1}$	1	$\varphi_{12,1} = 32_2$
$32_8 = \chi_{15,1}$	1	
$32_{12} = \chi_{17,1}$	1	

Block 20:	$\varphi_{13,0}$	
$32_5 = \chi_{14,0}$	1	$\varphi_{13,0} = 32_3$
$32_9 = \chi_{16,0}$	1	
$32_{13} = \chi_{18,0}$	1	

Block 21:	$\varphi_{13,1}$	
$32_6 = \chi_{14,1}$	1	$\varphi_{13,1} = 32_4$
$32_{10} = \chi_{16,1}$	1	
$32_{14} = \chi_{18,1}$	1	

Block 22:	$\varphi_{14+}$	
$32_{15} = \chi_{19+}$	1	$\varphi_{14+} = 32_5$
$32_{16} = \chi_{29,0}$	1	
$32_{17} = \chi_{29,1}$	1	

Block 39:	$\varphi_{24,0}$	
$32_{18} = \chi_{30,0}$	1	$\varphi_{24,0} = 32_6$
$32_{22} = \chi_{32,0}$	1	
$32_{27} = \chi_{34,1}$	1	

Block 40:	$\varphi_{24,1}$	
$32_{19} = \chi_{30,1}$	1	$\varphi_{24,1} = 32_7$
$32_{23} = \chi_{32,1}$	1	
$32_{26} = \chi_{34,0}$	1	

Block 41:	$\varphi_{25,0}$	
$32_{20} = \chi_{31,0}$	1	$\varphi_{25,0} = 32_8$
$32_{24} = \chi_{33,0}$	1	
$32_{29} = \chi_{35,1}$	1	

Block 42:	$\varphi_{25,1}$	
$32_{21} = \chi_{31,1}$	1	$\varphi_{25,1} = 32_9$
$32_{25} = \chi_{33,1}$	1	
$32_{28} = \chi_{35,0}$	1	