

$L_3(9) \pmod{5}$

	blocks	defect	matrix		blocks	defect	matrix
$G :$	1	1	4×2		26	0	$640_{17} = \chi_{26}, \varphi_{26}$
	2	0	$90_1 = \chi_2, \varphi_2$		$27 = \overline{26}$	0	$640_{18} = \chi_{27}, \varphi_{27}$
	3	1	4×2		28	0	$640_{19} = \chi_{28}, \varphi_{28}$
	4	1	4×2		$29 = \overline{28}$	0	$640_{20} = \chi_{29}, \varphi_{29}$
	$5 = \overline{4}$	1	4×2		30	0	$640_{21} = \chi_{30}, \varphi_{30}$
	6	1	4×2		$31 = \overline{30}$	0	$640_{22} = \chi_{31}, \varphi_{31}$
	$7 = \overline{6}$	1	4×2		32	0	$640_{23} = \chi_{32}, \varphi_{32}$
	8	1	4×2		$33 = \overline{32}$	0	$640_{24} = \chi_{33}, \varphi_{33}$
	$9 = \overline{8}$	1	4×2		34	0	$640_{25} = \chi_{34}, \varphi_{34}$
	10	0	$640_1 = \chi_{10}, \varphi_{10}$		$35 = \overline{34}$	0	$640_{26} = \chi_{35}, \varphi_{35}$
	$11 = \overline{10}$	0	$640_2 = \chi_{11}, \varphi_{11}$		36	0	$640_{27} = \chi_{36}, \varphi_{36}$
	12	0	$640_3 = \chi_{12}, \varphi_{12}$		$37 = \overline{36}$	0	$640_{28} = \chi_{37}, \varphi_{37}$
	$13 = \overline{12}$	0	$640_4 = \chi_{13}, \varphi_{13}$		38	0	$640_{29} = \chi_{38}, \varphi_{38}$
	14	0	$640_5 = \chi_{14}, \varphi_{14}$		$39 = \overline{38}$	0	$640_{30} = \chi_{39}, \varphi_{39}$
	$15 = \overline{14}$	0	$640_6 = \chi_{15}, \varphi_{15}$		40	1	5×1
	16	0	$640_7 = \chi_{16}, \varphi_{16}$		$41 = \overline{40}$	1	5×1
	$17 = \overline{16}$	0	$640_8 = \chi_{17}, \varphi_{17}$		42	1	5×1
	18	0	$640_9 = \chi_{18}, \varphi_{18}$		$43 = \overline{42}$	1	5×1
	$19 = \overline{18}$	0	$640_{10} = \chi_{19}, \varphi_{19}$		44	0	$910_1 = \chi_{84}, \varphi_{52}$
	20	0	$640_{11} = \chi_{20}, \varphi_{20}$		45	0	$910_2 = \chi_{85}, \varphi_{53}$
	$21 = \overline{20}$	0	$640_{12} = \chi_{21}, \varphi_{21}$		46	0	$910_3 = \chi_{86}, \varphi_{54}$
	22	0	$640_{13} = \chi_{22}, \varphi_{22}$		47	0	$910_4 = \chi_{87}, \varphi_{55}$
	$23 = \overline{22}$	0	$640_{14} = \chi_{23}, \varphi_{23}$		$48 = \overline{47}$	0	$910_5 = \chi_{88}, \varphi_{56}$
	24	0	$640_{15} = \chi_{24}, \varphi_{24}$		49	0	$910_6 = \chi_{89}, \varphi_{57}$
	$25 = \overline{24}$	0	$640_{16} = \chi_{25}, \varphi_{25}$		$50 = \overline{49}$	0	$910_7 = \chi_{90}, \varphi_{58}$

Block 1:	φ_1	φ_{41}
$1_1 = \chi_1$	1	.
$728_3 = \chi_{42}$	.	1
$728_4 = \chi_{43}$	.	1
$729_1 = \chi_{76}$	1	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_{41} &= 728_2 \end{aligned}$$

Block 3:	φ_3	φ_{40}
$91_1 = \chi_3$	1	.
$728_1 = \chi_{40}$	.	1
$728_2 = \chi_{41}$	.	1
$819_1 = \chi_{77}$	1	1

$$\begin{aligned} \varphi_3 &= 91_1 \\ \varphi_{40} &= 728_1 \end{aligned}$$

Block 4:	φ_4	φ_{46}		
$91_2 = \chi_4$	1	.	$\varphi_4 = 91_2$	
$728_9 = \chi_{48}$	.	1	$\varphi_{46} = 728_7$	
$728_{12} = \chi_{51}$	.	1		
$819_2 = \chi_{78}$	1	1		

Block 5:	φ_5	φ_{47}		
$91_3 = \chi_5$	1	.	$\varphi_5 = 91_3$	
$728_{10} = \chi_{49}$	.	1	$\varphi_{47} = 728_8$	
$728_{11} = \chi_{50}$	.	1		
$819_3 = \chi_{79}$	1	1		

Block 6:	φ_6	φ_{49}		
$91_4 = \chi_6$	1	.	$\varphi_6 = 91_4$	
$728_{14} = \chi_{53}$	.	1	$\varphi_{49} = 728_{10}$	
$728_{19} = \chi_{58}$	.	1		
$819_4 = \chi_{80}$	1	1		

Block 7:	φ_7	φ_{48}		
$91_5 = \chi_7$	1	.	$\varphi_7 = 91_5$	
$728_{13} = \chi_{52}$	.	1	$\varphi_{48} = 728_9$	
$728_{20} = \chi_{59}$	.	1		
$819_5 = \chi_{81}$	1	1		

Block 8:	φ_8	φ_{51}		
$91_6 = \chi_8$	1	.	$\varphi_8 = 91_6$	
$728_{16} = \chi_{55}$	.	1	$\varphi_{51} = 728_{12}$	
$728_{17} = \chi_{56}$	.	1		
$819_6 = \chi_{82}$	1	1		

Block 9:	φ_9	φ_{50}	
$91_7 = \chi_9$	1	.	$\varphi_9 = 91_7$
$728_{15} = \chi_{54}$	.	1	$\varphi_{50} = 728_{11}$
$728_{18} = \chi_{57}$	.	1	
$819_7 = \chi_{83}$	1	1	

Block 40:	φ_{42}	
$728_5 = \chi_{44}$	1	
$728_{24} = \chi_{63}$	1	$\varphi_{42} = 728_3$
$728_{25} = \chi_{64}$	1	
$728_{32} = \chi_{71}$	1	
$728_{33} = \chi_{72}$	1	

Block 41:	φ_{43}	
$728_6 = \chi_{45}$	1	
$728_{23} = \chi_{62}$	1	$\varphi_{43} = 728_4$
$728_{26} = \chi_{65}$	1	
$728_{31} = \chi_{70}$	1	
$728_{34} = \chi_{73}$	1	

Block 42:	φ_{44}	
$728_7 = \chi_{46}$	1	
$728_{22} = \chi_{61}$	1	$\varphi_{44} = 728_5$
$728_{27} = \chi_{66}$	1	
$728_{30} = \chi_{69}$	1	
$728_{35} = \chi_{74}$	1	

Block 43:	φ_{45}	
$728_8 = \chi_{47}$	1	
$728_{21} = \chi_{60}$	1	$\varphi_{45} = 728_6$
$728_{28} = \chi_{67}$	1	
$728_{29} = \chi_{68}$	1	
$728_{36} = \chi_{75}$	1	