

$L_3(4) \pmod{3}$

	blocks	defect	matrix
$3.G :$	1	3	16×5
	2	1	3×1
	$3 = \bar{2}$	1	3×1
	4	1	3×1
	5	1	3×1
$6.G :$	6	3	16×5
	7	1	3×1

	blocks	defect	matrix
	8	1	3×1
$12_1.G :$	9	3	16×5
	$10 = 9 * 7$		
$12_2.G :$	11	3	16×5
	$12 = 11 * 7$	1	3×1
	13		
	$14 = 13 * 7$		

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_5
$1_1 = \chi_1$	1	.	.	.	.
$20_1 = \chi_2$	1	.	.	.	1
$35_1 = \chi_3$	1	1	.	.	1
$35_2 = \chi_4$	1	.	1	.	1
$35_3 = \chi_5$	1	.	.	1	1
$64_1 = \chi_{10}$	.	1	1	1	1
$15_1 = \chi_{32}$	.	1	.	.	.
$15_2 = \chi_{32}^{*2}$	.	1	.	.	.
$15_3 = \chi_{33}$	.	.	1	.	.
$15_4 = \chi_{33}^{*2}$	.	.	1	.	.
$15_5 = \chi_{34}$	.	.	.	1	.
$15_6 = \chi_{34}^{*2}$	.	.	.	1	.
$21_1 = \chi_{35}$	2	.	.	.	1
$21_2 = \chi_{35}^{*2}$	2	.	.	.	1
$84_1 = \chi_{40}$	1	1	1	1	2
$84_2 = \chi_{40}^{*2}$	1	1	1	1	2

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_2 &= 15_1 \\ \varphi_3 &= 15_2 \\ \varphi_4 &= 15_3 \\ \varphi_5 &= 19_1 \end{aligned}$$

Block 2:	φ_6
$45_1 = \chi_6$	1
$45_3 = \chi_{36}$	1
$45_4 = \chi_{36}^{*8}$	1

$$\varphi_6 = 45_1$$

Block 3:	φ_7
$45_2 = \chi_7$	1
$45_5 = \chi_{37}$	1
$45_6 = \chi_{37}^{*8}$	1

$$\varphi_7 = 45_2$$

Block 4:	φ_8
$63_1 = \chi_8$	1
$63_3 = \chi_{38}$	1
$63_4 = \chi_{38}^{*11}$	1

$$\varphi_8 = 63_1$$

Block 5:	φ_9
$63_2 = \chi_9$	1
$63_5 = \chi_{39}$	1
$63_6 = \chi_{39}^{*11}$	1

$$\varphi_9 = 63_2$$

Block 6:	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}
$10_1 = \chi_{11}$	.	1	.	.	.
$10_2 = \chi_{12}$	.	.	1	.	.
$28_1 = \chi_{13}$	1	.	.	.	1
$28_2 = \chi_{14}$	1	.	.	1	.
$64_2 = \chi_{16}$	.	1	1	1	1
$70_1 = \chi_{17}$	1	1	1	1	1
$6_1 = \chi_{41}$	1	.	.	.	.
$6_2 = \chi_{41}^{*2}$	1	.	.	.	.
$42_1 = \chi_{43}$	.	1	1	1	.
$42_2 = \chi_{43}^{*11}$	.	1	1	1	.
$42_3 = \chi_{44}$	.	1	1	.	1
$42_4 = \chi_{44}^{*11}$	.	1	1	.	1
$60_1 = \chi_{45}$	1	.	1	1	1
$60_2 = \chi_{45}^{*8}$	1	.	1	1	1
$60_3 = \chi_{46}$	1	1	.	1	1
$60_4 = \chi_{46}^{*8}$	1	1	.	1	1

$$\begin{aligned} \varphi_{10} &= 6_1 \\ \varphi_{11} &= 10_1 \\ \varphi_{12} &= 10_2 \\ \varphi_{13} &= 22_1 \\ \varphi_{14} &= 22_2 \end{aligned}$$

Block 7:	φ_{15}
$36_1 = \chi_{15}$	1
$36_2 = \chi_{42}$	1
$36_3 = \chi_{42}^{*2}$	1

$$\varphi_{15} = 36_1$$

Block 8:	φ_{16}
$90_1 = \chi_{18}$	1
$90_2 = \chi_{47}$	1
$90_3 = \chi_{47}^{*2}$	1

$$\varphi_{16} = 90_1$$

Block 9:	φ_{17}	φ_{18}	φ_{19}	φ_{20}	φ_{21}
$8_1 = \chi_{19}$	1	.	.	.	.
$8_3 = \chi_{20}$	.	1	.	.	.
$56_1 = \chi_{21}$	1	1	.	.	1
$64_3 = \chi_{22}$	1	1	1	1	.
$80_1 = \chi_{23}$	1	1	1	.	1
$80_3 = \chi_{24}$	1	1	.	1	1
$24_1 = \chi_{48}$	.	.	1	.	.
$24_2 = \chi_{48}^{*29}$	.	.	1	.	.
$24_5 = \chi_{49}$	.	.	.	1	.
$24_6 = \chi_{49}^{*29}$	.	.	.	1	.
$48_1 = \chi_{50}$	1	.	.	.	1
$48_2 = \chi_{50}^{*41}$	1	.	.	.	1
$48_5 = \chi_{51}$	.	1	.	.	1
$48_6 = \chi_{51}^{*41}$	.	1	.	.	1
$120_1 = \chi_{52}$	2	2	1	1	1
$120_2 = \chi_{52}^{*5}$	2	2	1	1	1

$$\begin{aligned} \varphi_{17} &= 8_1 \\ \varphi_{18} &= 8_3 \\ \varphi_{19} &= 24_1 \\ \varphi_{20} &= 24_3 \\ \varphi_{21} &= 40_1 \end{aligned}$$

Block 11:	φ_{22}	φ_{23}	φ_{24}	φ_{25}	φ_{27}	
$20_2 = \chi_{25}$	1	1	.	.	.	
$28_3 = \chi_{26}$	.	.	1	.	.	
$28_5 = \chi_{27}$	.	.	.	1	.	
$64_3 = \chi_{29}$	1	.	.	.	1	
$80_1 = \chi_{30}$	1	1	.	.	1	
$80_3 = \chi_{31}$	2	1	1	1	.	$\varphi_{22} = 4_1$
$48_1 = \chi_{54}$	1	1	1	.	.	$\varphi_{23} = 16_1$
$48_2 = \chi_{54}^{*41}$	1	1	1	.	.	$\varphi_{24} = 28_1$
$48_5 = \chi_{55}$	1	1	.	1	.	$\varphi_{25} = 28_3$
$48_6 = \chi_{55}^{*41}$	1	1	.	1	.	$\varphi_{27} = 60_1$
$60_5 = \chi_{56}$	1	.	1	1	.	
$60_6 = \chi_{56}^{*29}$	1	.	1	1	.	
$60_9 = \chi_{57}$	.	.	.	.	1	
$60_{10} = \chi_{57}^{*29}$	.	.	.	.	1	
$84_3 = \chi_{58}$	2	1	.	.	1	
$84_4 = \chi_{58}^{*5}$	2	1	.	.	1	

Block 13:	φ_{26}	
$36_2 = \chi_{28}$	1	$\varphi_{26} = 36_2$
$36_6 = \chi_{53}$	1	
$36_7 = \chi_{53}^{*5}$	1	