

## $G_2(4) \pmod{5}$

	blocks	defect	matrix
$G :$	1	2	$14 \times 6$
	2	1	$4 \times 2$
	3	0	$300_1 = \chi_4, \varphi_4$
	$4 = \bar{3}$	0	$300_2 = \chi_5, \varphi_5$
	5	0	$350_1 = \chi_6, \varphi_6$
	6	0	$650_1 = \chi_{10}, \varphi_{10}$
	7	0	$1300_1 = \chi_{15}, \varphi_{11}$
	8	1	$4 \times 2$
	9	0	$2925_1 = \chi_{17}, \varphi_{14}$
	10	0	$2925_2 = \chi_{18}, \varphi_{15}$

	blocks	defect	matrix
	11	0	$2925_3 = \chi_{19}, \varphi_{16}$
	12	0	$4725_1 = \chi_{30}, \varphi_{19}$
	13	0	$4725_2 = \chi_{31}, \varphi_{20}$
$2.G :$	14	2	$14 \times 6$
	15	1	$4 \times 2$
	16	0	$1800_1 = \chi_{39}, \varphi_{26}$
	17	0	$1800_2 = \chi_{40}, \varphi_{27}$
	18	0	$3600_1 = \chi_{47}, \varphi_{31}$
	19	0	$3900_1 = \chi_{50}, \varphi_{32}$
	20	0	$3900_2 = \chi_{51}, \varphi_{33}$

<b>Block 1:</b>	$\varphi_1$	$\varphi_3$	$\varphi_7$	$\varphi_8$	$\varphi_9$	$\varphi_{13}$	
$1_1 = \chi_1$	1	.	.	.	.	.	
$78_1 = \chi_3$	.	1	.	.	.	.	
$364_1 = \chi_7$	1	.	1	.	.	.	
$364_2 = \chi_8$	1	.	.	1	.	.	$\varphi_1 = 1_1$
$378_1 = \chi_9$	.	.	.	.	1	.	$\varphi_3 = 78_1$
$819_1 = \chi_{11}$	.	1	1	.	1	.	$\varphi_7 = 363_1$
$819_2 = \chi_{12}$	.	1	1	.	1	.	$\varphi_8 = 363_2$
$819_3 = \chi_{13}$	.	1	.	1	1	.	$\varphi_9 = 378_1$
$819_4 = \chi_{14}$	.	1	.	1	1	.	$\varphi_{13} = 2535_1$
$3276_1 = \chi_{20}$	.	.	1	.	1	1	
$3276_2 = \chi_{21}$	.	.	1	.	1	1	
$3276_3 = \chi_{22}$	.	.	.	1	1	1	
$3276_4 = \chi_{23}$	.	.	.	1	1	1	
$4096_1 = \chi_{28}$	1	1	1	1	2	1	

<b>Block 2:</b>	$\varphi_2$	$\varphi_{18}$	
$65_1 = \chi_2$	1	.	$\varphi_2 = 65_1$
$4095_3 = \chi_{26}$	.	1	$\varphi_{18} = 4095_2$
$4095_4 = \chi_{27}$	.	1	
$4160_1 = \chi_{29}$	1	1	

<b>Block 8:</b>	$\varphi_{12}$	$\varphi_{17}$		
$1365_1 = \chi_{16}$	1	.	$\varphi_{12} =$	$1365_1$
$4095_1 = \chi_{24}$	.	1	$\varphi_{17} =$	$4095_1$
$4095_2 = \chi_{25}$	.	1		
$5460_1 = \chi_{32}$	1	1		

<b>Block 14:</b>	$\varphi_{21}$	$\varphi_{22}$	$\varphi_{23}$	$\varphi_{28}$	$\varphi_{29}$	$\varphi_{30}$		
$12_1 = \chi_{33}$	1	.	.	.	.	.		
$104_1 = \chi_{34}$	1	1	.	.	.	.		
$104_2 = \chi_{35}$	1	1	.	.	.	.		
$364_3 = \chi_{36}$	.	.	1	.	.	.	$\varphi_{21} =$	$12_1$
$2016_1 = \chi_{43}$	.	1	.	1	.	.	$\varphi_{22} =$	$92_1$
$2184_1 = \chi_{44}$	1	.	.	.	1	.	$\varphi_{23} =$	$364_1$
$2184_2 = \chi_{45}$	1	.	.	.	1	.	$\varphi_{28} =$	$1924_1$
$3276_5 = \chi_{46}$	.	.	.	.	.	1	$\varphi_{29} =$	$2172_1$
$3744_1 = \chi_{48}$	1	1	1	.	.	1	$\varphi_{30} =$	$3276_1$
$3744_2 = \chi_{49}$	1	1	1	.	.	1		
$4096_2 = \chi_{52}$	.	.	.	1	1	.		
$5824_1 = \chi_{53}$	1	.	1	.	1	1		
$5824_2 = \chi_{54}$	1	.	1	.	1	1		
$7488_1 = \chi_{55}$	2	1	.	1	1	1		

<b>Block 15:</b>	$\varphi_{24}$	$\varphi_{25}$		
$560_1 = \chi_{37}$	1	.	$\varphi_{24} =$	$560_1$
$1260_1 = \chi_{38}$	.	1	$\varphi_{25} =$	$1260_1$
$1820_1 = \chi_{41}$	1	1		
$1820_2 = \chi_{42}$	1	1		