

## $M_{22} \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	$5 \times 3$
	2	0	$21_1 = \chi_2, \varphi_2$
	3	0	$154_1 = \chi_7, \varphi_5$
	4	0	$210_1 = \chi_8, \varphi_6$
	5	0	$231_1 = \chi_9, \varphi_7$
	6	0	$280_1 = \chi_{10}, \varphi_8$
	$7 = \overline{6}$	0	$280_2 = \chi_{11}, \varphi_9$
	8	0	$385_1 = \chi_{12}, \varphi_{10}$
$2.G :$	9	1	$5 \times 3$
	10	0	$56_1 = \chi_{15}, \varphi_{12}$
	11	0	$126_1 = \chi_{17}, \varphi_{14}$
	$12 = \overline{11}$	0	$126_2 = \chi_{18}, \varphi_{15}$
	13	0	$154_2 = \chi_{19}, \varphi_{16}$
	$14 = \overline{13}$	0	$154_3 = \chi_{20}, \varphi_{17}$
	15	0	$210_2 = \chi_{21}, \varphi_{18}$
$4.G :$	16	0	$56_2 = \chi_{24}, \varphi_{21}$
	$17 = 16^*$	0	$56_4 = \chi_{25}, \varphi_{22}$
	18	0	
	$19 = 18^*$	1	$5 \times 3$
	$21 = 20^*$	0	$560_1 = \chi_{31}, \varphi_{25}$
	$23 = 22^*$	0	
$3.G :$	24	0	$21_2 = \chi_{32}, \varphi_{26}$
	$25 = 24^*$	1	$5 \times 3$
	26	1	
	$27 = 26^*$	0	$105_1 = \chi_{36}, \varphi_{29}$
	28	0	
	$29 = 28^*$	0	$105_3 = \chi_{37}, \varphi_{30}$
	$30 = \overline{29}$	0	
	$31 = 30^*$		

	blocks	defect	matrix
	32	0	$210_3 = \chi_{38}, \varphi_{31}$
	$33 = 32^*$	0	
	34	0	$231_2 = \chi_{39}, \varphi_{32}$
	$35 = 34^*$	0	
	36	0	$231_4 = \chi_{40}, \varphi_{33}$
	$37 = 36^*$	0	
$6.G :$	38	1	$5 \times 3$
	$39 = 38^*$	0	$126_3 = \chi_{46}, \varphi_{37}$
	40	0	
	$41 = 40^*$	0	$126_5 = \chi_{47}, \varphi_{38}$
	$42 = \overline{41}$	0	
	$43 = 42^*$	0	$210_5 = \chi_{48}, \varphi_{39}$
	44	0	
	$45 = 44^*$	0	$210_7 = \chi_{49}, \varphi_{40}$
	46	0	
	$47 = \overline{46^*}$	0	$210_9 = \chi_{50}, \varphi_{41}$
	$48 = \overline{47}$	0	
	$49 = 48^*$		
$12.G :$	50	1	$5 \times 3$
	$51 = 50 * 5$		
	$52 = 50 * 7$		
	$53 = 50 * 11$		
	54	0	$336_1 = \chi_{57}, \varphi_{46}$
	$55 = 54 * 5$		
	$56 = 54 * 7$		
	$57 = 54 * 11$		
	$58 = \overline{57}$	0	$336_5 = \chi_{58}, \varphi_{47}$
	$59 = 58 * 5$		
	$60 = 58 * 7$		
$61 = 58 * 11$			

<b>Block 1:</b>	$\varphi_1$	$\varphi_3$	$\varphi_4$	
$1_1 = \chi_1$	1	.	.	$\varphi_1 = 1_1$
$45_1 = \chi_3$	.	1	.	$\varphi_3 = 45_1$
$45_2 = \chi_4$	.	1	.	$\varphi_4 = 54_1$
$55_1 = \chi_5$	1	.	1	
$99_1 = \chi_6$	.	1	1	

<b>Block 9:</b>	$\varphi_{11}$	$\varphi_{13}$	$\varphi_{19}$	
$10_1 = \chi_{13}$	1	.	.	$\varphi_{11} = 10_1$
$10_2 = \chi_{14}$	1	.	.	$\varphi_{13} = 120_1$
$120_1 = \chi_{16}$	.	1	.	$\varphi_{19} = 320_1$
$330_1 = \chi_{22}$	1	.	1	
$440_1 = \chi_{23}$	.	1	1	

<b>Blocks 20, 21:</b>	$\varphi_{20}$	$\varphi_{23}$	$\varphi_{24}$	
$144_1 = \chi_{26}$	.	1	.	$\varphi_{20} = 16_1$
$144_3 = \chi_{27}$	.	1	.	$\varphi_{23} = 144_1$
$160_1 = \chi_{28}$	.	.	1	$\varphi_{24} = 160_1$
$160_3 = \chi_{29}$	1	1	.	
$176_1 = \chi_{30}$	1	.	1	

<b>Blocks 26, 27:</b>	$\varphi_{27}$	$\varphi_{28}$	$\varphi_{34}$	
$45_3 = \chi_{33}$	1	.	.	$\varphi_{27} = 45_2$
$45_5 = \chi_{34}$	1	.	.	$\varphi_{28} = 99_1$
$99_2 = \chi_{35}$	.	1	.	$\varphi_{34} = 285_1$
$330_2 = \chi_{41}$	1	.	1	
$384_1 = \chi_{42}$	.	1	1	

<b>Blocks 38, 39:</b>	$\varphi_{35}$	$\varphi_{36}$	$\varphi_{42}$	
$66_1 = \chi_{43}$	.	1	.	$\varphi_{35} = 54_2$
$66_3 = \chi_{44}$	.	1	.	$\varphi_{36} = 66_1$
$120_2 = \chi_{45}$	1	1	.	$\varphi_{42} = 330_1$
$330_4 = \chi_{51}$	.	.	1	
$384_3 = \chi_{52}$	1	.	1	

<b>Blocks 50, 51, 52, 53:</b>	$\varphi_{43}$	$\varphi_{44}$	$\varphi_{45}$	
$120_4 = \chi_{53}$	1	.	.	$\varphi_{43} = 120_2$
$120_8 = \chi_{54}$	.	1	.	$\varphi_{44} = 120_6$
$144_5 = \chi_{55}$	.	.	1	$\varphi_{45} = 144_3$
$144_9 = \chi_{56}$	.	.	1	
$384_5 = \chi_{59}$	1	1	1	