

$M_{22} \pmod{11}$

	blocks	defect	matrix
$G :$	1	1	7×5
	2	0	$55_1 = \chi_5, \varphi_5$
	3	0	$99_1 = \chi_6, \varphi_6$
	4	0	$154_1 = \chi_7, \varphi_7$
	5	0	$231_1 = \chi_9, \varphi_9$
	6	0	$385_1 = \chi_{12}, \varphi_{10}$
$2.G :$	7	1	7×5
	8	0	$154_2 = \chi_{19}, \varphi_{16}$
	$9 = \bar{8}$	0	$154_3 = \chi_{20}, \varphi_{17}$
	10	0	$330_1 = \chi_{22}, \varphi_{18}$
	11	0	$440_1 = \chi_{23}, \varphi_{19}$
$4.G :$	12	1	7×5
	$13 = 12^*$	0	$176_1 = \chi_{30}, \varphi_{25}$
	14		
	$15 = 14^*$		
$3.G :$	16	1	7×5
	$17 = 16^*$	0	$99_2 = \chi_{35}, \varphi_{30}$
	18		
	$19 = 18^*$		

	blocks	defect	matrix
	20	0	$231_2 = \chi_{39}, \varphi_{32}$
	$21 = 20^*$	0	$231_4 = \chi_{40}, \varphi_{33}$
	22		
	$23 = 22^*$	0	$330_2 = \chi_{41}, \varphi_{34}$
	24		
	$25 = 24^*$		
$6.G :$	26	0	$66_1 = \chi_{43}, \varphi_{36}$
	$27 = 26^*$	0	$66_3 = \chi_{44}, \varphi_{37}$
	$28 = \bar{27}$		
	$29 = 28^*$	1	7×5
	30		
	$31 = 30^*$	0	$330_4 = \chi_{51}, \varphi_{42}$
	32		
	$33 = 32^*$		
$12.G :$	34	1	7×5
	35	1	7×5
	$36 = 35^*$		
	$37 = 34^*$		

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_8	
$1_1 = \chi_1$	1	.	.	.	.	$\varphi_1 = 1_1$
$21_1 = \chi_2$	1	1	.	.	.	$\varphi_2 = 20_1$
$45_1 = \chi_3$	.	.	1	.	.	$\varphi_3 = 45_1$
$45_2 = \chi_4$	.	.	.	1	.	$\varphi_4 = 45_2$
$210_1 = \chi_8$	.	1	.	.	1	$\varphi_8 = 190_1$
$280_1 = \chi_{10}$	.	.	1	1	1	
$280_2 = \chi_{11}$	.	.	1	1	1	

Block 7:	φ_{11}	φ_{12}	φ_{13}	φ_{14}	φ_{15}	
$10_1 = \chi_{13}$	1	.	.	.	.	$\varphi_{11} = 10_1$
$10_2 = \chi_{14}$	.	1	.	.	.	$\varphi_{12} = 10_2$
$56_1 = \chi_{15}$	.	.	1	.	.	$\varphi_{13} = 56_1$
$120_1 = \chi_{16}$	.	.	1	1	.	$\varphi_{14} = 64_1$
$126_1 = \chi_{17}$	.	.	.	.	1	$\varphi_{15} = 126_1$
$126_2 = \chi_{18}$	.	.	.	.	1	
$210_2 = \chi_{21}$	1	1	.	1	1	

Blocks 12, 13:	φ_{20}	φ_{21}	φ_{22}	φ_{23}	φ_{24}	
$56_2 = \chi_{24}$	1	.	.	.	.	$\varphi_{20} = 56_2$
$56_4 = \chi_{25}$	.	1	.	.	.	$\varphi_{21} = 56_4$
$144_1 = \chi_{26}$	.	.	1	.	.	$\varphi_{22} = 144_1$
$144_3 = \chi_{27}$	.	.	.	1	.	$\varphi_{23} = 144_3$
$160_1 = \chi_{28}$	.	.	.	.	1	$\varphi_{24} = 160_1$
$160_3 = \chi_{29}$	.	.	.	.	1	
$560_1 = \chi_{31}$	1	1	1	1	1	

Blocks 16, 17:	φ_{26}	φ_{27}	φ_{28}	φ_{29}	φ_{31}	
$21_2 = \chi_{32}$	1	.	.	.	.	$\varphi_{26} = 21_1$
$45_3 = \chi_{33}$	.	1	.	.	.	$\varphi_{27} = 45_3$
$45_5 = \chi_{34}$	.	.	1	.	.	$\varphi_{28} = 45_5$
$105_1 = \chi_{36}$	1	.	.	1	.	$\varphi_{29} = 84_1$
$105_3 = \chi_{37}$	1	.	.	1	.	$\varphi_{31} = 210_1$
$210_3 = \chi_{38}$	.	.	.	.	1	
$384_1 = \chi_{42}$	.	1	1	1	1	

Blocks 30, 31:	φ_{35}	φ_{38}	φ_{39}	φ_{40}	φ_{41}	
$120_2 = \chi_{45}$	.	.	1	.	.	$\varphi_{35} = 36_1$
$126_3 = \chi_{46}$	1	1	.	.	.	$\varphi_{38} = 90_1$
$126_5 = \chi_{47}$	1	1	.	.	.	$\varphi_{39} = 120_1$
$210_5 = \chi_{48}$	1	.	.	1	.	$\varphi_{40} = 174_1$
$210_7 = \chi_{49}$	.	.	.	.	1	$\varphi_{41} = 210_3$
$210_9 = \chi_{50}$	.	1	1	.	.	
$384_3 = \chi_{52}$	.	.	.	1	1	

Blocks 34, 37:	φ_{43}	φ_{44}	φ_{45}	φ_{46}	φ_{47}
$120_4 = \chi_{53}$	.	.	1	.	.
$120_8 = \chi_{54}$	.	.	.	1	.
$144_5 = \chi_{55}$	1	.	1	.	.
$144_9 = \chi_{56}$	.	1	.	1	.
$336_1 = \chi_{57}$	.	.	.	.	1
$336_5 = \chi_{58}$	.	.	.	.	1
$384_5 = \chi_{59}$	1	1	.	.	1

$$\begin{aligned}
\varphi_{43} &= 24_1 \\
\varphi_{44} &= 24_3 \\
\varphi_{45} &= 120_3 \\
\varphi_{46} &= 120_5 \\
\varphi_{47} &= 336_1
\end{aligned}$$

Blocks 35, 36:	φ_{48}	φ_{49}	φ_{50}	φ_{51}	φ_{52}
$120_5 = \chi_{53}^{*17}$	.	1	.	.	.
$120_9 = \chi_{54}^{*17}$	.	.	1	.	.
$144_6 = \chi_{55}^{*29}$	.	.	.	1	.
$144_{10} = \chi_{56}^{*29}$	.	.	.	.	1
$336_2 = \chi_{57}^{*89}$	1	1	1	.	.
$336_6 = \chi_{58}^{*89}$	1	1	1	.	.
$384_6 = \chi_{59}^{*5}$	1	.	.	1	1

$$\begin{aligned}
\varphi_{48} &= 96_1 \\
\varphi_{49} &= 120_7 \\
\varphi_{50} &= 120_9 \\
\varphi_{51} &= 144_5 \\
\varphi_{52} &= 144_7
\end{aligned}$$