

$U_3(9) \pmod{5}$

	blocks	defect	matrix
$G :$	1	2	13×3
	2	2	20×2
	3	1	5×1
	4	1	5×1
	5	1	5×1
	6	1	5×1
	$7 = \overline{6}$	1	5×1
	8	1	5×1
	$9 = \overline{8}$	1	5×1
	10	0	$800_1 = \chi_{69}, \varphi_{13}$
	$11 = \overline{10}$	0	$800_2 = \chi_{70}, \varphi_{14}$
	12	0	$800_3 = \chi_{71}, \varphi_{15}$
	$13 = \overline{12}$	0	$800_4 = \chi_{72}, \varphi_{16}$
	14	0	$800_5 = \chi_{73}, \varphi_{17}$
	$15 = \overline{14}$	0	$800_6 = \chi_{74}, \varphi_{18}$
	16	0	$800_7 = \chi_{75}, \varphi_{19}$
	$17 = \overline{16}$	0	$800_8 = \chi_{76}, \varphi_{20}$

	blocks	defect	matrix
	18	0	$800_9 = \chi_{77}, \varphi_{21}$
	$19 = \overline{18}$	0	$800_{10} = \chi_{78}, \varphi_{22}$
	20	0	$800_{11} = \chi_{79}, \varphi_{23}$
	$21 = \overline{20}$	0	$800_{12} = \chi_{80}, \varphi_{24}$
	22	0	$800_{13} = \chi_{81}, \varphi_{25}$
	$23 = \overline{22}$	0	$800_{14} = \chi_{82}, \varphi_{26}$
	24	0	$800_{15} = \chi_{83}, \varphi_{27}$
	$25 = \overline{24}$	0	$800_{16} = \chi_{84}, \varphi_{28}$
	26	0	$800_{17} = \chi_{85}, \varphi_{29}$
	$27 = \overline{26}$	0	$800_{18} = \chi_{86}, \varphi_{30}$
	28	0	$800_{19} = \chi_{87}, \varphi_{31}$
	$29 = \overline{28}$	0	$800_{20} = \chi_{88}, \varphi_{32}$
	30	0	$800_{21} = \chi_{89}, \varphi_{33}$
	$31 = \overline{30}$	0	$800_{22} = \chi_{90}, \varphi_{34}$
	32	0	$800_{23} = \chi_{91}, \varphi_{35}$
	$33 = \overline{32}$	0	$800_{24} = \chi_{92}, \varphi_{36}$

Block 1:	φ_1	φ_2	φ_5
$1_1 = \chi_1$	1	.	.
$72_1 = \chi_2$	.	1	.
$73_2 = \chi_4$	1	1	.
$73_3 = \chi_5$	1	1	.
$73_4 = \chi_6$	1	1	.
$73_5 = \chi_7$	1	1	.
$584_3 = \chi_{14}$	.	.	1
$584_4 = \chi_{15}$	.	.	1
$657_2 = \chi_{25}$	1	1	1
$657_3 = \chi_{26}$	1	1	1
$657_4 = \chi_{27}$	1	1	1
$657_5 = \chi_{28}$	1	1	1
$729_1 = \chi_{33}$	1	2	1

$$\begin{aligned}
 \varphi_1 &= 1_1 \\
 \varphi_2 &= 72_1 \\
 \varphi_5 &= 584_2
 \end{aligned}$$

Block 2:	φ_3	φ_4		
$73_1 = \chi_3$	1	.		
$73_6 = \chi_8$	1	.		
$73_7 = \chi_9$	1	.		
$73_8 = \chi_{10}$	1	.		
$73_9 = \chi_{11}$	1	.		
$584_1 = \chi_{12}$	.	1		
$584_2 = \chi_{13}$	.	1		
$584_5 = \chi_{16}$	.	1		
$584_6 = \chi_{17}$	.	1	$\varphi_3 = 73_1$	
$584_7 = \chi_{18}$	.	1	$\varphi_4 = 584_1$	
$584_8 = \chi_{19}$	.	1		
$584_9 = \chi_{20}$	.	1		
$584_{10} = \chi_{21}$	.	1		
$584_{11} = \chi_{22}$	.	1		
$584_{12} = \chi_{23}$	.	1		
$657_1 = \chi_{24}$	1	1		
$657_6 = \chi_{29}$	1	1		
$657_7 = \chi_{30}$	1	1		
$657_8 = \chi_{31}$	1	1		
$657_9 = \chi_{32}$	1	1		

Block 3:	φ_6	
$730_1 = \chi_{34}$	1	
$730_4 = \chi_{37}$	1	$\varphi_6 = 730_1$
$730_5 = \chi_{38}$	1	
$730_6 = \chi_{39}$	1	
$730_7 = \chi_{40}$	1	

Block 4:	φ_7	
$730_2 = \chi_{35}$	1	
$730_{12} = \chi_{45}$	1	$\varphi_7 = 730_2$
$730_{13} = \chi_{46}$	1	
$730_{18} = \chi_{51}$	1	
$730_{19} = \chi_{52}$	1	

Block 5:	φ_8
$730_3 = \chi_{36}$	1
$730_{14} = \chi_{47}$	1
$730_{15} = \chi_{48}$	1
$730_{16} = \chi_{49}$	1
$730_{17} = \chi_{50}$	1

$$\varphi_8 = 730_3$$

Block 6:	φ_9
$730_8 = \chi_{41}$	1
$730_{20} = \chi_{53}$	1
$730_{27} = \chi_{60}$	1
$730_{29} = \chi_{62}$	1
$730_{34} = \chi_{67}$	1

$$\varphi_9 = 730_4$$

Block 7:	φ_{10}
$730_9 = \chi_{42}$	1
$730_{21} = \chi_{54}$	1
$730_{26} = \chi_{59}$	1
$730_{28} = \chi_{61}$	1
$730_{35} = \chi_{68}$	1

$$\varphi_{10} = 730_5$$

Block 8:	φ_{11}
$730_{10} = \chi_{43}$	1
$730_{22} = \chi_{55}$	1
$730_{24} = \chi_{57}$	1
$730_{31} = \chi_{64}$	1
$730_{33} = \chi_{66}$	1

$$\varphi_{11} = 730_6$$

Block 9:	φ_{12}
$730_{11} = \chi_{44}$	1
$730_{23} = \chi_{56}$	1
$730_{25} = \chi_{58}$	1
$730_{30} = \chi_{63}$	1
$730_{32} = \chi_{65}$	1

$$\varphi_{12} = 730_7$$