

$R(27).3 \pmod{7}$

	blocks	defect	matrix		blocks	defect	matrix
$G :$	1	1	7×6		$10 = \bar{6}$	0	$2184_6 = \chi_{8,2}, \varphi_{8,2}$
	2	1	7×6		11	0	$41496_1 = \chi_{9+}, \varphi_{9+}$
	$3 = \bar{2}$	1	7×6		12	0	$41496_2 = \chi_{12+}, \varphi_{12+}$
	4	1	7×6		13	0	$59052_1 = \chi_{21+}, \varphi_{17+}$
	5	0	$2184_1 = \chi_{7,0}, \varphi_{7,0}$		14	0	$59052_2 = \chi_{24+}, \varphi_{20+}$
	6	0	$2184_2 = \chi_{7,1}, \varphi_{7,1}$		15	0	$59052_3 = \chi_{27+}, \varphi_{23+}$
	7	0	$2184_3 = \chi_{7,2}, \varphi_{7,2}$		16	0	$59052_4 = \chi_{30+}, \varphi_{26+}$
	$8 = \bar{5}$	0	$2184_4 = \chi_{8,0}, \varphi_{8,0}$		17	0	$80808_1 = \chi_{33+}, \varphi_{29+}$
	$9 = \bar{7}$	0	$2184_5 = \chi_{8,1}, \varphi_{8,1}$				

Block 1:	$\varphi_{1,0}$	$\varphi_{3,0}$	$\varphi_{4,0}$	$\varphi_{5,0}$	$\varphi_{6,0}$	$\varphi_{15,0}$	
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	$\varphi_{1,0} = 1_1$
$741_1 = \chi_{3,0}$	.	1	.	.	.	.	$\varphi_{3,0} = 741_1$
$741_4 = \chi_{4,0}$	.	.	1	.	.	.	$\varphi_{4,0} = 741_4$
$1443_1 = \chi_{5,0}$	.	.	.	1	.	.	$\varphi_{5,0} = 1443_1$
$1443_4 = \chi_{6,0}$	.	.	.	.	1	.	$\varphi_{6,0} = 1443_4$
$18278_1 = \chi_{15,0}$	.	1	1	.	.	1	$\varphi_{15,0} = 16796_1$
$19683_1 = \chi_{20,0}$	1	.	.	1	1	1	

Block 2:	$\varphi_{1,1}$	$\varphi_{3,1}$	$\varphi_{4,1}$	$\varphi_{5,1}$	$\varphi_{6,1}$	$\varphi_{15,1}$	
$1_2 = \chi_{1,1}$	1	.	.	.	.	.	$\varphi_{1,1} = 1_2$
$741_2 = \chi_{3,1}$	.	1	.	.	.	.	$\varphi_{3,1} = 741_2$
$741_5 = \chi_{4,1}$	.	.	1	.	.	.	$\varphi_{4,1} = 741_5$
$1443_2 = \chi_{5,1}$	.	.	.	1	.	.	$\varphi_{5,1} = 1443_2$
$1443_5 = \chi_{6,1}$	.	.	.	.	1	.	$\varphi_{6,1} = 1443_5$
$18278_2 = \chi_{15,1}$	.	1	1	.	.	1	$\varphi_{15,1} = 16796_2$
$19683_2 = \chi_{20,1}$	1	.	.	1	1	1	

Block 3:	$\varphi_{1,2}$	$\varphi_{3,2}$	$\varphi_{4,2}$	$\varphi_{5,2}$	$\varphi_{6,2}$	$\varphi_{15,2}$	
$1_3 = \chi_{1,2}$	1	.	.	.	.	.	$\varphi_{1,2} = 1_3$
$741_3 = \chi_{3,2}$	.	1	.	.	.	.	$\varphi_{3,2} = 741_3$
$741_6 = \chi_{4,2}$	.	.	1	.	.	.	$\varphi_{4,2} = 741_6$
$1443_3 = \chi_{5,2}$	.	.	.	1	.	.	$\varphi_{5,2} = 1443_3$
$1443_6 = \chi_{6,2}$	.	.	.	.	1	.	$\varphi_{6,2} = 1443_6$
$18278_3 = \chi_{15,2}$	.	1	1	.	.	1	$\varphi_{15,2} = 16796_3$
$19683_3 = \chi_{20,2}$	1	.	.	1	1	1	

Block 4:	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{2,2}$	$\varphi_{16,0}$	$\varphi_{16,1}$	$\varphi_{16,2}$	
$703_1 = \chi_{2,0}$	1	.	.	.	.	.	$\varphi_{2,0} = 703_1$
$703_2 = \chi_{2,1}$	.	1	.	.	.	.	$\varphi_{2,1} = 703_2$
$703_3 = \chi_{2,2}$	.	.	1	.	.	.	$\varphi_{2,2} = 703_3$
$54834_1 = \chi_{16+}$	.	.	.	1	1	1	$\varphi_{16,0} = 18278_1$
$18981_1 = \chi_{19,0}$	1	.	.	1	.	.	$\varphi_{16,1} = 18278_2$
$18981_2 = \chi_{19,1}$	.	1	.	.	1	.	$\varphi_{16,2} = 18278_3$
$18981_3 = \chi_{19,2}$	.	.	1	.	.	1	