

$$O_{10}^+(2) \pmod{3}$$

	blocks	defect	matrix
$G:$	1	5	54×20
	2	4	19×5
	3	1	3×2
	4	2	9×4
	5	1	3×1
	6	1	3×1

	blocks	defect	matrix
	7	0	$722925_1 = \chi_{83}, \varphi_{33}$
	$8 = \overline{7}$	0	$722925_2 = \chi_{84}, \varphi_{34}$
	9	0	$722925_3 = \chi_{85}, \varphi_{35}$
	$10 = \overline{9}$	0	$722925_4 = \chi_{86}, \varphi_{36}$
	11	0	$722925_5 = \chi_{87}, \varphi_{37}$
	$12 = \overline{11}$	0	$722925_6 = \chi_{88}, \varphi_{38}$

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}	φ_{16}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.	.	.
$155_1 = \chi_2$	.	1	.	.	.	.	.	.	.	.	.	.	.	.
$186_1 = \chi_3$	1	.	1	.	.	.	.	.	.	.	.	.	.	.
$340_1 = \chi_4$	.	1	1	.	.	.	.	.	.	.	.	.	.	.
$868_1 = \chi_5$	.	.	.	1	.	.	.	.	.	.	.	.	.	.
$2108_1 = \chi_6$	1	.	1	.	1	.	.	.	.	.	.	.	.	.
$5270_1 = \chi_7$	.	.	.	1	.	1	.	.	.	.	.	.	.	.
$6324_1 = \chi_8$	.	.	.	.	1	1	.	.	.	.	.	.	.	.
$7905_1 = \chi_9$	.	.	.	1	.	.	1	.	.	.	.	.	.	.
$9300_1 = \chi_{10}$	1	1	1	.	1	.	1	.	.	.	.	.	.	.
$13020_1 = \chi_{12}$	.	.	.	.	.	1	.	1	.	.	.	.	.	.
$13888_1 = \chi_{13}$	.	.	.	.	.	.	.	.	1	.	.	.	.	.
$14756_1 = \chi_{14}$	1	1	1	.	.	.	.	.	.	1	.	.	.	.
$15810_1 = \chi_{15}$	.	1	.	.	.	.	1	1	.	.	.	.	.	.
$18445_1 = \chi_{16}$	.	.	.	1	.	.	.	.	.	.	1	.	.	.
$18445_2 = \chi_{17}$	.	.	.	.	.	.	.	.	.	.	.	1	.	.
$22848_1 = \chi_{18}$	1	.	.	1	1	1	1	1	.	.	.	.	.	.
$31620_1 = \chi_{19}$	.	.	.	.	.	.	.	1	.	.	.	.	1	.
$31620_2 = \chi_{20}$	.	1	.	.	.	.	.	.	1	.	1	.	.	.
$36890_1 = \chi_{21}$	.	.	.	.	.	.	.	.	1	.	.	.	1	.
$42160_1 = \chi_{22}$	1	1	1	.	1	.	1	.	.	1	.	1	.	.
$50592_1 = \chi_{23}$	.	1	.	.	.	.	.	.	.	1	1	1	.	.
$73780_1 = \chi_{27}$	.	1	.	.	.	.	.	.	.	.	.	.	.	.
$73780_2 = \chi_{28}$	.	.	.	1	.	1	.	1	.	.	.	.	.	1
$73780_3 = \chi_{29}$	.	.	.	.	.	.	.	.	1	.	.	.	.	1
$101184_1 = \chi_{30}$	.	.	.	1	1	1	1	1	.	.	.	1	.	1
$110670_1 = \chi_{31}$	.	.	.	.	.	.	1	.	.	.	.	.	.	.
$110670_2 = \chi_{32}$	.	.	.	1	.	.	.	.	1	.	1	1	.	1
$147560_1 = \chi_{35}$	.	.	.	1	.	.	.	.	1	.	1	.	.	.
$147560_2 = \chi_{36}$	.	.	.	1	.	.	.	.	.	.	.	.	.	.
$148800_1 = \chi_{37}$	1	.	1	.	1	1	1	1	.	.	.	.	1	.
$158100_1 = \chi_{38}$	.	.	.	.	.	.	.	.	1	.	1	.	1	.
$166005_1 = \chi_{39}$	.	.	.	.	.	.	.	.	2	.	.	.	1	.
$168640_1 = \chi_{42}$	1	1	1	1	1	1	1	.	.	1	1	1	.	.
$208320_1 = \chi_{43}$	.	1	.	2	.	.	.	.	.	.	1	.	.	.
$221340_1 = \chi_{44}$	.	1	.	1	.	1	1	1	.	.	.	.	1	.
$236096_1 = \chi_{46}$	1	2	1	1	.	.	1	.	.	1	1	1	.	.
$316200_1 = \chi_{49}$	.	.	.	2	.	1	.	.	.	.	1	.	.	.
$337280_1 = \chi_{53}$	.	.	.	2	.	.	.	.	.	.	.	.	.	.
$348160_1 = \chi_{54}$	.	1	1	1	.	.	.	.	1	.	1	.	1	.

(Block 1:)	φ_{17}	φ_{18}	φ_{20}	φ_{21}	φ_{23}	φ_{32}
$1_1 = \chi_1$	.	.	.	.	.	.
$155_1 = \chi_2$	.	.	.	.	.	.
$186_1 = \chi_3$	.	.	.	.	.	.
$340_1 = \chi_4$	.	.	.	.	.	.
$868_1 = \chi_5$	.	.	.	.	.	.
$2108_1 = \chi_6$	.	.	.	.	.	.
$5270_1 = \chi_7$	.	.	.	.	.	.
$6324_1 = \chi_8$	.	.	.	.	.	.
$7905_1 = \chi_9$	.	.	.	.	.	.
$9300_1 = \chi_{10}$	.	.	.	.	.	.
$13020_1 = \chi_{12}$	.	.	.	.	.	.
$13888_1 = \chi_{13}$	.	.	.	.	.	.
$14756_1 = \chi_{14}$	.	.	.	.	.	.
$15810_1 = \chi_{15}$	.	.	.	.	.	.
$18445_1 = \chi_{16}$	.	.	.	.	.	.
$18445_2 = \chi_{17}$	.	.	.	.	.	.
$22848_1 = \chi_{18}$	.	.	.	.	.	.
$31620_1 = \chi_{19}$	.	.	.	.	.	.
$31620_2 = \chi_{20}$	.	.	.	.	.	.
$36890_1 = \chi_{21}$	.	.	.	.	.	.
$42160_1 = \chi_{22}$	.	.	.	.	.	.
$50592_1 = \chi_{23}$	.	.	.	.	.	.
$73780_1 = \chi_{27}$	1	.	.	.	.	.
$73780_2 = \chi_{28}$	.	.	.	.	.	.
$73780_3 = \chi_{29}$	.	.	.	.	.	.
$101184_1 = \chi_{30}$	.	.	.	.	.	.
$110670_1 = \chi_{31}$	.	1	.	.	.	.
$110670_2 = \chi_{32}$	.	.	.	.	.	.
$147560_1 = \chi_{35}$	.	.	1	.	.	.
$147560_2 = \chi_{36}$	.	.	.	1	.	.
$148800_1 = \chi_{37}$	.	1	.	.	.	.
$158100_1 = \chi_{38}$	.	1	.	.	.	.
$166005_1 = \chi_{39}$	.	.	1	.	.	.
$168640_1 = \chi_{42}$	.	1	.	.	.	.
$208320_1 = \chi_{43}$	1	.	1	.	.	.
$221340_1 = \chi_{44}$	1	1	.	.	.	.
$236096_1 = \chi_{46}$	1	1	.	.	.	.
$316200_1 = \chi_{49}$	1	1	1	.	.	.
$337280_1 = \chi_{53}$	1	.	1	1	.	.
$348160_1 = \chi_{54}$	1	1	1	.	.	.

(Block 1:)	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_{10}	φ_{11}	φ_{12}	φ_{13}	φ_{14}	φ_{16}
$368900_1 = \chi_{59}$	.	.	.	.	.	.	.	.	.	.	1	1	.	1
$442680_1 = \chi_{66}$	.	.	.	.	.	.	.	.	.	.	.	.	1	.
$442680_2 = \chi_{67}$	.	.	.	.	.	.	1	.	.	.	1	1	1	.
$505920_1 = \chi_{72}$	.	.	.	1	.	.	1	.	.	.	.	1	.	1
$539648_1 = \chi_{73}$	1	1	1	1	1	1	2	1	1	.	1	1	1	1
$590240_1 = \chi_{74}$	.	.	.	1	.	.	.	.	1	.	.	.	.	1
$634880_1 = \chi_{75}$	.	.	.	.	.	.	.	1	2	.	.	.	1	1
$664020_1 = \chi_{76}$	.	.	.	2	.	.	.	.	.	.	.	.	.	.
$761856_1 = \chi_{89}$	1	1	1	2	.	.	1	.	.	.	1	.	1	.
$830025_1 = \chi_{90}$	.	.	.	2	.	.	.	.	2	.	.	.	1	.
$885360_1 = \chi_{91}$	.	1	.	3	.	1	1	1	1	.	2	1	1	1
$1011840_1 = \chi_{92}$	.	1	.	1	.	.	1	1	2	.	1	1	1	2
$1048576_1 = \chi_{93}$	1	.	.	1	.	.	1	1	1	.	.	.	1	1
$1180480_1 = \chi_{94}$	.	.	.	2	.	.	.	.	2	.	1	.	1	1

(Block 1:)	φ_{17}	φ_{18}	φ_{20}	φ_{21}	φ_{23}	φ_{32}
$368900_1 = \chi_{59}$	.	.	.	.	1	.
$442680_1 = \chi_{66}$	.	.	.	1	1	.
$442680_2 = \chi_{67}$	.	1	.	.	1	.
$505920_1 = \chi_{72}$	.	.	.	1	1	.
$539648_1 = \chi_{73}$	.	1	.	.	1	.
$590240_1 = \chi_{74}$	.	.	.	.	.	1
$634880_1 = \chi_{75}$	.	.	.	.	.	1
$664020_1 = \chi_{76}$	.	.	.	1	.	1
$761856_1 = \chi_{89}$	1	1	1	1	1	.
$830025_1 = \chi_{90}$	.	.	1	1	.	1
$885360_1 = \chi_{91}$	1	1	1	1	1	.
$1011840_1 = \chi_{92}$	.	.	.	.	1	1
$1048576_1 = \chi_{93}$	.	.	.	1	1	1
$1180480_1 = \chi_{94}$	.	.	1	1	1	1

$$\begin{aligned}
\varphi_1 &= 1_1 \\
\varphi_2 &= 155_1 \\
\varphi_3 &= 185_1 \\
\varphi_4 &= 868_1 \\
\varphi_5 &= 1922_1 \\
\varphi_6 &= 4402_1 \\
\varphi_7 &= 7037_1 \\
\varphi_8 &= 8618_1 \\
\varphi_{10} &= 13888_1 \\
\varphi_{11} &= 14415_1 \\
\varphi_{12} &= 17577_1 \\
\varphi_{13} &= 18445_1 \\
\varphi_{14} &= 23002_1 \\
\varphi_{16} &= 59892_1 \\
\varphi_{17} &= 73625_1 \\
\varphi_{18} &= 103633_1 \\
\varphi_{20} &= 115227_1 \\
\varphi_{21} &= 146692_1 \\
\varphi_{23} &= 272986_1 \\
\varphi_{32} &= 515592_1
\end{aligned}$$

Block 2:	φ_9	φ_{15}	φ_{19}	φ_{22}	φ_{24}	
$11067_1 = \chi_{11}$	1	.	.	.	.	
$55335_1 = \chi_{24}$	.	1	.	.	.	
$55335_2 = \chi_{25}$	.	1	.	.	.	
$66402_1 = \chi_{26}$	1	1	.	.	.	
$110670_3 = \chi_{33}$	.	.	1	.	.	
$110670_4 = \chi_{34}$	.	.	1	.	.	
$166005_2 = \chi_{40}$	1	.	.	1	.	$\varphi_9 = 11067_1$
$166005_3 = \chi_{41}$	.	1	1	.	.	$\varphi_{15} = 55335_1$
$221340_2 = \chi_{45}$	1	1	.	1	.	$\varphi_{19} = 110670_1$
$265608_1 = \chi_{47}$	.	.	1	1	.	$\varphi_{22} = 154938_1$
$332010_1 = \chi_{50}$	.	1	.	.	1	$\varphi_{24} = 276675_1$
$332010_2 = \chi_{51}$	1	1	1	1	.	
$332010_3 = \chi_{52}$	1	1	1	1	.	
$442680_3 = \chi_{68}$	.	1	1	.	1	
$442680_4 = \chi_{69}$	.	1	1	.	1	
$498015_1 = \chi_{70}$	.	.	2	.	1	
$498015_2 = \chi_{71}$	.	.	2	.	1	
$664020_2 = \chi_{77}$	1	2	1	1	1	
$708288_1 = \chi_{78}$	.	1	2	1	1	

Block 3:	φ_{25}	φ_{39}	
$298809_1 = \chi_{48}$	1	.	$\varphi_{25} = 298809_1$
$1195236_1 = \chi_{95}$	.	1	$\varphi_{39} = 1195236_1$
$1494045_1 = \chi_{97}$	1	1	

Block 4:	φ_{26}	φ_{27}	φ_{28}	φ_{29}	
$355725_1 = \chi_{55}$	1	.	.	.	
$355725_2 = \chi_{56}$	.	1	.	.	
$355725_3 = \chi_{57}$	.	.	1	.	$\varphi_{26} = 355725_1$
$355725_4 = \chi_{58}$	.	.	.	1	$\varphi_{27} = 355725_2$
$711450_1 = \chi_{79}$	1	.	1	.	$\varphi_{28} = 355725_3$
$711450_2 = \chi_{80}$	1	.	.	1	$\varphi_{29} = 355725_4$
$711450_3 = \chi_{81}$	.	1	.	1	
$711450_4 = \chi_{82}$	.	1	1	.	
$1422900_1 = \chi_{96}$	1	1	1	1	

Block 5:	φ_{30}
$439425_1 = \chi_{60}$	1
$439425_3 = \chi_{62}$	1
$439425_4 = \chi_{63}$	1

$$\varphi_{30} = 439425_1$$

Block 6:	φ_{31}
$439425_2 = \chi_{61}$	1
$439425_5 = \chi_{64}$	1
$439425_6 = \chi_{65}$	1

$$\varphi_{31} = 439425_2$$