

$$O_7(3) \pmod{2}$$

	blocks	defect	matrix
2. <i>G</i> :	1	10	72×12
	2	4	8×2
	3	2	4×1
	4	1	2×1
	5	1	2×1
6. <i>G</i> :	6	10	38×6
	7 = 6*		
	8	4	8×2
	9 = 8*		

Block 1:	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.
$78_1 = \chi_2$	.	1	.	.	.	.	.	.	.	.	.	.
$91_1 = \chi_3$	1	.	1	.	.	.	.	.	.	.	.	.
$105_1 = \chi_4$	1	.	.	1	.	.	.	.	.	.	.	.
$168_1 = \chi_5$	.	1	1	.	.	.	.	.	.	.	.	.
$182_1 = \chi_6$	.	1	.	1	.	.	.	.	.	.	.	.
$195_1 = \chi_7$	1	.	1	1	.	.	.	.	.	.	.	.
$260_1 = \chi_8$	.	.	.	.	1	.	.	.	.	.	.	.
$260_2 = \chi_9$	.	.	.	.	.	1	.	.	.	.	.	.
$273_1 = \chi_{10}$	1	1	1	1	.	.	.	.	.	.	.	.
$546_1 = \chi_{11}$	.	1	.	.	.	.	1	.	.	.	.	.
$819_1 = \chi_{12}$	1	.	1	2	1	1	.	.	.	.	.	.
$910_1 = \chi_{13}$	.	1	.	1	1	.	1	.	.	.	.	.
$910_2 = \chi_{14}$	.	1	.	1	.	1	1	.	.	.	.	.
$1092_1 = \chi_{15}$	.	.	.	.	.	.	.	1	.	.	.	.
$1365_1 = \chi_{16}$	1	1	1	2	1	1	1	.	.	.	.	.
$1365_2 = \chi_{17}$	1	1	1	.	.	.	.	.	1	.	.	.
$1560_1 = \chi_{18}$	.	.	.	.	.	.	1	1	.	.	.	.
$1560_2 = \chi_{19}$	.	.	.	.	.	.	1	1	.	.	.	.
$1638_1 = \chi_{20}$	.	1	.	.	.	.	1	1	.	.	.	.
$1820_1 = \chi_{21}$	.	2	.	.	.	.	1	.	1	.	.	.
$2106_1 = \chi_{22}$	.	1	.	.	.	.	2	1	.	.	.	.
$2184_1 = \chi_{23}$	2	1	2	2	1	1	.	.	1	.	.	.
$2457_1 = \chi_{24}$	1	1	1	1	1	1	1	.	1	.	.	.
$2730_1 = \chi_{25}$	.	1	.	1	1	1	2	1	.	.	.	.
$2730_2 = \chi_{26}$	.	1	.	1	.	.	.	.	.	1	.	.
$2835_1 = \chi_{27}$	1	1	.	.	.	.	1	1	1	.	.	.
$4095_1 = \chi_{28}$	1	2	1	3	1	1	1	.	.	1	.	.
$4095_2 = \chi_{29}$	1	2	1	1	1	1	2	1	1	.	.	.
$4368_1 = \chi_{30}$	.	2	.	2	1	1	2	.	.	1	.	.
$4536_1 = \chi_{31}$	.	3	1	2	1	1	2	.	.	1	.	.
$5265_1 = \chi_{32}$	1	3	1	2	1	1	1	.	1	1	.	.
$5460_1 = \chi_{33}$	.	2	.	.	.	.	1	1	1	1	.	.
$5460_2 = \chi_{34}$	.	2	.	2	1	1	2	1	.	1	.	.
$5460_3 = \chi_{35}$	.	2	.	.	1	1	3	2	1	.	.	.
$6552_1 = \chi_{38}$	2	3	2	4	2	2	2	.	1	1	.	.
$7020_1 = \chi_{39}$	.	.	.	.	1	.	2	1	.	.	1	.
$7020_2 = \chi_{40}$	.	.	.	.	.	1	2	1	.	.	.	1
$7280_1 = \chi_{41}$	.	4	.	.	.	.	2	1	2	1	.	.
$7280_2 = \chi_{42}$	.	.	.	.	1	1	2	1	.	.	1	.

(Block 1:)	φ_1	φ_2	φ_3	φ_4	φ_5	φ_6	φ_7	φ_8	φ_9	φ_{10}	φ_{11}	φ_{12}
$7280_3 = \chi_{43}$	.	.	.	.	1	1	2	1	.	.	.	1
$7371_1 = \chi_{44}$	1	4	1	2	1	1	3	1	1	1	.	.
$8190_1 = \chi_{45}$	.	1	.	1	1	.	1	.	.	1	1	.
$8190_2 = \chi_{46}$	.	1	.	1	.	1	1	.	.	1	.	1
$14742_1 = \chi_{48}$	.	1	.	1	1	1	2	1	.	1	1	1
$16380_1 = \chi_{49}$	.	2	.	.	1	1	3	1	1	1	1	1
$19683_1 = \chi_{56}$	1	3	.	1	1	1	5	3	1	1	1	1
$21840_1 = \chi_{57}$	.	4	.	.	2	2	6	3	2	1	1	1
$22113_1 = \chi_{58}$	1	5	1	3	2	2	5	2	1	2	1	1
$520_1 = \chi_{59}$	.	.	.	.	1	1	.	.	.	.	.	.
$560_1 = \chi_{60}$	2	.	1	2	1	.	.	.	.	.	.	.
$560_2 = \chi_{61}$	2	.	1	2	.	1	.	.	.	.	.	.
$1456_1 = \chi_{62}$	.	.	.	.	1	1	2	.	.	.	.	.
$1456_2 = \chi_{63}$	.	.	.	.	.	1	.	.	1	.	.	.
$1456_3 = \chi_{64}$	.	.	.	.	1	.	.	.	1	.	.	.
$3120_1 = \chi_{65}$	.	.	.	.	.	.	2	2	.	.	.	.
$3640_1 = \chi_{66}$	.	.	.	.	1	1	2	2	.	.	.	.
$6720_1 = \chi_{67}$	2	4	3	4	2	2	2	.	1	1	.	.
$6720_2 = \chi_{68}$	2	4	3	4	2	2	2	.	1	1	.	.
$7280_4 = \chi_{69}$	.	4	.	.	1	1	4	2	2	.	.	.
$7280_5 = \chi_{70}$	.	4	.	4	1	1	2	.	.	2	.	.
$7280_6 = \chi_{71}$	.	.	.	.	.	.	.	.	.	1	.	1
$7280_7 = \chi_{72}$	.	.	.	.	.	.	.	.	.	1	1	.
$10920_1 = \chi_{73}$	.	.	.	.	1	1	2	.	.	.	1	1
$13104_1 = \chi_{76}$	.	.	.	.	1	1	2	2	.	.	1	1
$13104_2 = \chi_{77}$	.	4	.	.	.	1	4	2	1	1	.	1
$13104_3 = \chi_{78}$	.	4	.	.	1	.	4	2	1	1	1	.
$14040_1 = \chi_{79}$	.	.	.	.	1	1	4	2	.	.	1	1
$15120_1 = \chi_{80}$	2	4	1	2	1	2	4	2	2	1	.	1
$15120_2 = \chi_{81}$	2	4	1	2	2	1	4	2	2	1	1	.
$21840_2 = \chi_{86}$	.	4	.	4	3	3	6	2	.	2	1	1
$21840_3 = \chi_{87}$	.	4	.	.	1	1	4	2	2	2	1	1

$$\begin{array}{ll}
\varphi_1 = 1_1 & \varphi_7 = 468_1 \\
\varphi_2 = 78_1 & \varphi_8 = 1092_1 \\
\varphi_3 = 90_1 & \varphi_9 = 1196_1 \\
\varphi_4 = 104_1 & \varphi_{10} = 2548_1 \\
\varphi_5 = 260_1 & \varphi_{11} = 4732_1 \\
\varphi_6 = 260_2 & \varphi_{12} = 4732_2
\end{array}$$

Block 2:	φ_{13}	φ_{14}	
$5824_1 = \chi_{36}$	1	.	
$5824_2 = \chi_{37}$	1	.	
$11648_1 = \chi_{47}$	.	1	
$17472_1 = \chi_{52}$	1	1	$\varphi_{13} = 5824_1$
$17472_2 = \chi_{53}$	1	1	$\varphi_{14} = 11648_1$
$11648_2 = \chi_{74}$	.	1	
$11648_3 = \chi_{75}$	.	1	
$23296_1 = \chi_{88}$	2	1	

Block 3:	φ_{15}	
$16640_1 = \chi_{50}$	1	
$16640_2 = \chi_{51}$	1	$\varphi_{15} = 16640_1$
$16640_3 = \chi_{82}$	1	
$16640_4 = \chi_{83}$	1	

Block 4:	φ_{16}	
$17920_1 = \chi_{54}$	1	$\varphi_{16} = 17920_1$
$17920_3 = \chi_{84}$	1	

Block 5:	φ_{17}	
$17920_2 = \chi_{55}$	1	$\varphi_{17} = 17920_2$
$17920_4 = \chi_{85}$	1	

Blocks 6, 7:	φ_{18}	φ_{19}	φ_{21}	φ_{22}	φ_{23}	φ_{24}
$27_1 = \chi_{89}$	1	.	.	.	.	.
$351_1 = \chi_{90}$	1	1	.	.	.	.
$351_3 = \chi_{91}$	1	1	.	.	.	.
$378_1 = \chi_{92}$	2	1	.	.	.	.
$2457_2 = \chi_{95}$	1	.	.	.	.	1
$2457_4 = \chi_{96}$	1	1	1	.	.	.
$2457_6 = \chi_{97}$	1	1	1	.	.	.
$2808_1 = \chi_{98}$	2	1	.	.	.	1
$2808_3 = \chi_{99}$	2	1	.	.	.	1
$4914_1 = \chi_{100}$	2	1	1	.	.	1
$4914_3 = \chi_{101}$	2	1	1	.	.	1
$5265_2 = \chi_{102}$	3	2	1	.	.	1
$7020_3 = \chi_{103}$	2	.	.	1	1	1
$7371_2 = \chi_{104}$	3	1	.	1	1	1
$7371_4 = \chi_{105}$	3	1	.	1	1	1
$7560_1 = \chi_{106}$	4	2	1	.	1	1
$7560_3 = \chi_{107}$	4	2	1	1	.	1
$9477_1 = \chi_{108}$	3	1	1	1	1	1
$9828_1 = \chi_{109}$	4	2	1	1	1	1
$12285_1 = \chi_{110}$	5	2	1	1	1	2
$12285_3 = \chi_{111}$	5	2	1	1	1	2
$12285_5 = \chi_{112}$	5	2	1	1	1	2
$12285_7 = \chi_{113}$	5	2	1	1	1	2
$12285_9 = \chi_{114}$	5	2	1	1	1	2
$14742_2 = \chi_{115}$	6	3	2	1	1	2
$16848_1 = \chi_{116}$	6	2	1	2	2	2
$19656_1 = \chi_{117}$	8	3	1	2	2	3
$19656_3 = \chi_{118}$	8	3	1	2	2	3
$19683_2 = \chi_{119}$	9	3	1	2	2	3
$4536_2 = \chi_{123}$	.	.	.	1	1	.
$12096_1 = \chi_{124}$	4	2	2	1	.	2
$12096_3 = \chi_{125}$	4	2	2	.	1	2
$14040_2 = \chi_{126}$	4	.	.	2	2	2
$15120_3 = \chi_{127}$	8	4	2	1	1	2
$19656_5 = \chi_{128}$	8	4	2	2	2	2
$22464_5 = \chi_{130}$	10	4	1	2	2	4
$22464_7 = \chi_{131}$	10	4	1	2	2	4
$29160_1 = \chi_{134}$	12	4	2	3	3	4

$$\begin{aligned}
\varphi_{18} &= 27_1 \\
\varphi_{19} &= 324_1 \\
\varphi_{21} &= 2106_1 \\
\varphi_{22} &= 2268_1 \\
\varphi_{23} &= 2268_3 \\
\varphi_{24} &= 2430_1
\end{aligned}$$

Blocks 8, 9:	φ_{20}	φ_{25}
$1728_1 = \chi_{93}$	1	.
$1728_3 = \chi_{94}$	1	.
$22464_1 = \chi_{120}$	1	1
$22464_3 = \chi_{121}$	1	1
$24192_1 = \chi_{122}$	2	1
$20736_1 = \chi_{129}$	.	1
$24192_3 = \chi_{132}$	2	1
$24192_5 = \chi_{133}$	2	1

$$\begin{aligned} \varphi_{20} &= 1728_1 \\ \varphi_{25} &= 20736_1 \end{aligned}$$