

$O_{10}^+(2) \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	7×6
	2	1	7×6
	3	1	5×3
	4	1	7×6
	5	0	$868_1 = \chi_5, \varphi_5$
	6	1	5×3
	7	0	$11067_1 = \chi_{11}, \varphi_{11}$
	8	0	$13020_1 = \chi_{12}, \varphi_{12}$
	9	0	$13888_1 = \chi_{13}, \varphi_{13}$
	10	0	$14756_1 = \chi_{14}, \varphi_{14}$
	11	1	5×3
	12	0	$18445_1 = \chi_{16}, \varphi_{16}$
	13	0	$18445_2 = \chi_{17}, \varphi_{17}$
	14	0	$22848_1 = \chi_{18}, \varphi_{18}$
	15	0	$36890_1 = \chi_{21}, \varphi_{21}$
	16	0	$55335_1 = \chi_{24}, \varphi_{24}$
	$17 = \overline{16}$	0	$55335_2 = \chi_{25}, \varphi_{25}$
	18	0	$66402_1 = \chi_{26}, \varphi_{26}$
	19	0	$73780_1 = \chi_{27}, \varphi_{27}$
	20	0	$73780_2 = \chi_{28}, \varphi_{28}$
	21	0	$73780_3 = \chi_{29}, \varphi_{29}$
	22	0	$110670_1 = \chi_{31}, \varphi_{32}$
	23	0	$110670_2 = \chi_{32}, \varphi_{33}$
	24	0	$110670_3 = \chi_{33}, \varphi_{34}$
	$25 = \overline{24}$	0	$110670_4 = \chi_{34}, \varphi_{35}$
	26	0	$147560_1 = \chi_{35}, \varphi_{36}$
	27	0	$147560_2 = \chi_{36}, \varphi_{37}$
	28	0	$166005_1 = \chi_{39}, \varphi_{40}$
	29	0	$166005_2 = \chi_{40}, \varphi_{41}$
	30	0	$166005_3 = \chi_{41}, \varphi_{42}$
	31	0	$208320_1 = \chi_{43}, \varphi_{43}$
	32	0	$221340_1 = \chi_{44}, \varphi_{44}$
	33	0	$221340_2 = \chi_{45}, \varphi_{45}$
	34	0	$236096_1 = \chi_{46}, \varphi_{46}$
	35	0	$265608_1 = \chi_{47}, \varphi_{48}$
	36	0	$298809_1 = \chi_{48}, \varphi_{49}$
	37	0	$332010_1 = \chi_{50}, \varphi_{53}$
	38	0	$332010_2 = \chi_{51}, \varphi_{54}$
	$39 = \overline{38}$	0	$332010_3 = \chi_{52}, \varphi_{55}$
	40	0	$368900_1 = \chi_{59}, \varphi_{57}$

	blocks	defect	matrix
	41	0	$439425_1 = \chi_{60}, \varphi_{59}$
	42	0	$439425_2 = \chi_{61}, \varphi_{60}$
	43	0	$439425_3 = \chi_{62}, \varphi_{61}$
	$44 = \overline{43}$	0	$439425_4 = \chi_{63}, \varphi_{62}$
	45	0	$439425_5 = \chi_{64}, \varphi_{63}$
	$46 = \overline{45}$	0	$439425_6 = \chi_{65}, \varphi_{64}$
	47	0	$442680_1 = \chi_{66}, \varphi_{65}$
	48	0	$442680_2 = \chi_{67}, \varphi_{66}$
	49	0	$442680_3 = \chi_{68}, \varphi_{67}$
	$50 = \overline{49}$	0	$442680_4 = \chi_{69}, \varphi_{68}$
	51	0	$498015_1 = \chi_{70}, \varphi_{69}$
	$52 = \overline{51}$	0	$498015_2 = \chi_{71}, \varphi_{70}$
	53	0	$590240_1 = \chi_{74}, \varphi_{71}$
	54	0	$664020_1 = \chi_{76}, \varphi_{72}$
	55	0	$664020_2 = \chi_{77}, \varphi_{73}$
	56	0	$708288_1 = \chi_{78}, \varphi_{74}$
	57	0	$722925_1 = \chi_{83}, \varphi_{77}$
	$58 = \overline{57}$	0	$722925_2 = \chi_{84}, \varphi_{78}$
	59	0	$722925_3 = \chi_{85}, \varphi_{79}$
	$60 = \overline{59}$	0	$722925_4 = \chi_{86}, \varphi_{80}$
	61	0	$722925_5 = \chi_{87}, \varphi_{81}$
	$62 = \overline{61}$	0	$722925_6 = \chi_{88}, \varphi_{82}$
	63	0	$830025_1 = \chi_{90}, \varphi_{83}$
	64	0	$885360_1 = \chi_{91}, \varphi_{84}$
	65	0	$1180480_1 = \chi_{94}, \varphi_{86}$
	66	0	$1195236_1 = \chi_{95}, \varphi_{87}$
	67	0	$1494045_1 = \chi_{97}, \varphi_{88}$

Block 1:	φ_1	φ_6	φ_{22}	φ_{30}	φ_{31}	φ_{47}	
$1_1 = \chi_1$	1	.	.	.	.	.	$\varphi_1 = 1_1$
$2108_1 = \chi_6$	.	1	.	.	.	.	$\varphi_6 = 2108_1$
$42160_1 = \chi_{22}$	.	1	1	.	.	.	$\varphi_{22} = 40052_1$
$101184_1 = \chi_{30}$	1	.	.	1	.	.	$\varphi_{30} = 101183_1$
$148800_1 = \chi_{37}$	.	.	1	.	1	.	$\varphi_{31} = 108748_1$
$348160_1 = \chi_{54}$	.	.	.	1	.	1	$\varphi_{47} = 246977_1$
$355725_1 = \chi_{55}$	.	.	.	.	1	1	

Block 2:	φ_2	φ_7	φ_{19}	φ_{20}	φ_{51}	φ_{52}	
$155_1 = \chi_2$	1	.	.	.	.	.	$\varphi_2 = 155_1$
$5270_1 = \chi_7$	1	1	.	.	.	.	$\varphi_7 = 5115_1$
$31620_1 = \chi_{19}$	.	.	.	1	.	.	$\varphi_{19} = 26505_1$
$31620_2 = \chi_{20}$	.	1	1	.	.	.	$\varphi_{20} = 31620_1$
$337280_1 = \chi_{53}$	.	.	.	1	1	.	$\varphi_{51} = 305660_1$
$355725_2 = \chi_{56}$	.	.	1	.	.	1	$\varphi_{52} = 329220_1$
$634880_1 = \chi_{75}$	.	.	.	.	1	1	

Block 3:	φ_3	φ_{23}	φ_{75}	
$186_1 = \chi_3$	1	.	.	$\varphi_3 = 186_1$
$50592_1 = \chi_{23}$	1	1	.	$\varphi_{23} = 50406_1$
$711450_1 = \chi_{79}$	.	.	1	$\varphi_{75} = 711450_1$
$711450_2 = \chi_{80}$	.	.	1	
$761856_1 = \chi_{89}$	.	1	1	

Block 4:	φ_4	φ_8	φ_{10}	φ_{39}	φ_{58}	φ_{85}	
$340_1 = \chi_4$	1	.	.	.	.	.	$\varphi_4 = 340_1$
$6324_1 = \chi_8$	1	1	.	.	.	.	$\varphi_8 = 5984_1$
$9300_1 = \chi_{10}$	.	.	1	.	.	.	$\varphi_{10} = 9300_1$
$168640_1 = \chi_{42}$	.	.	1	1	.	.	$\varphi_{39} = 159340_1$
$539648_1 = \chi_{73}$	.	.	.	1	1	.	$\varphi_{58} = 380308_1$
$1048576_1 = \chi_{93}$	.	1	.	.	.	1	$\varphi_{85} = 1042592_1$
$1422900_1 = \chi_{96}$	.	.	.	.	1	1	

Block 6:	φ_9	φ_{38}	φ_{56}	
$7905_1 = \chi_9$	1	.	.	$\varphi_9 = 7905_1$
$158100_1 = \chi_{38}$	1	1	.	$\varphi_{38} = 150195_1$
$355725_3 = \chi_{57}$	.	.	1	$\varphi_{56} = 355725_1$
$355725_4 = \chi_{58}$	.	.	1	
$505920_1 = \chi_{72}$	.	1	1	

Block 11:	φ_{15}	φ_{50}	φ_{76}
$15810_1 = \chi_{15}$	1	.	.
$316200_1 = \chi_{49}$	1	1	.
$711450_3 = \chi_{81}$	.	.	1
$711450_4 = \chi_{82}$	.	.	1
$1011840_1 = \chi_{92}$	.	1	1

$$\begin{aligned} \varphi_{15} &= 15810_1 \\ \varphi_{50} &= 300390_1 \\ \varphi_{76} &= 711450_2 \end{aligned}$$