

$Fi_{23} \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	$7 \times 6$
	2	1	$7 \times 6$
	3	1	$7 \times 6$
	4	1	$7 \times 6$
	5	1	$7 \times 6$
	6	1	$7 \times 6$
	7	0	$106743_1 = \chi_8, \varphi_8$
	8	1	$7 \times 6$
	9	0	$752675_1 = \chi_{12}, \varphi_{12}$
	10	0	$812889_1 = \chi_{14}, \varphi_{14}$
	11	0	$837200_1 = \chi_{15}, \varphi_{15}$
	$12 = \overline{11}$	0	$837200_2 = \chi_{16}, \varphi_{16}$
	13	0	$850850_1 = \chi_{17}, \varphi_{17}$
	$14 = \overline{13}$	0	$850850_2 = \chi_{18}, \varphi_{18}$
	15	0	$3913910_1 = \chi_{23}, \varphi_{24}$
	16	0	$9108736_1 = \chi_{28}, \varphi_{28}$
	$17 = \overline{16}$	0	$9108736_2 = \chi_{29}, \varphi_{29}$
	18	0	$10567557_1 = \chi_{30}, \varphi_{30}$
	19	0	$10674300_1 = \chi_{31}, \varphi_{31}$
	20	0	$20322225_1 = \chi_{36}, \varphi_{36}$
	21	0	$21135114_1 = \chi_{37}, \varphi_{37}$
	22	0	$21348600_1 = \chi_{38}, \varphi_{38}$
	23	0	$28464800_1 = \chi_{41}, \varphi_{41}$
	24	0	$29354325_1 = \chi_{42}, \varphi_{42}$
	25	0	$35225190_1 = \chi_{43}, \varphi_{44}$
	26	0	$37573536_1 = \chi_{44}, \varphi_{45}$
	27	0	$40840800_1 = \chi_{45}, \varphi_{46}$
	28	0	$42270228_1 = \chi_{46}, \varphi_{47}$
	29	0	$48034350_1 = \chi_{47}, \varphi_{48}$
	30	0	$56360304_1 = \chi_{50}, \varphi_{52}$
	31	0	$56360304_2 = \chi_{51}, \varphi_{53}$
	32	0	$58708650_1 = \chi_{53}, \varphi_{54}$
	33	0	$58708650_2 = \chi_{54}, \varphi_{55}$
	34	0	$78278200_1 = \chi_{58}, \varphi_{57}$
	35	0	$93933840_1 = \chi_{59}, \varphi_{58}$
	36	0	$153014400_1 = \chi_{62}, \varphi_{63}$
	37	0	$153014400_2 = \chi_{63}, \varphi_{64}$
	38	0	$176125950_1 = \chi_{66}, \varphi_{66}$
	39	0	$176125950_2 = \chi_{67}, \varphi_{67}$
	40	0	$211351140_1 = \chi_{70}, \varphi_{71}$

	blocks	defect	matrix
	41	0	$216154575_1 = \chi_{71}, \varphi_{72}$
	42	0	$216770400_1 = \chi_{72}, \varphi_{73}$
	43	0	$263376036_1 = \chi_{74}, \varphi_{76}$
	44	0	$264188925_1 = \chi_{75}, \varphi_{77}$
	45	0	$289027200_1 = \chi_{80}, \varphi_{79}$
	46	0	$289027200_2 = \chi_{81}, \varphi_{80}$
	47	0	$313112800_1 = \chi_{83}, \varphi_{82}$
	48	0	$313112800_2 = \chi_{84}, \varphi_{83}$
	49	0	$313112800_3 = \chi_{85}, \varphi_{84}$
	50	0	$341577600_1 = \chi_{88}, \varphi_{85}$
	51	0	$352251900_1 = \chi_{90}, \varphi_{86}$
	52	0	$504627200_1 = \chi_{94}, \varphi_{87}$
	53	0	$504627200_2 = \chi_{95}, \varphi_{88}$
	54	0	$526752072_1 = \chi_{96}, \varphi_{89}$
	55	0	$528377850_1 = \chi_{97}, \varphi_{90}$
	56	0	$559458900_1 = \chi_{98}, \varphi_{91}$

<b>Block 1:</b>	$\varphi_1$	$\varphi_{19}$	$\varphi_{27}$	$\varphi_{60}$	$\varphi_{65}$	$\varphi_{69}$
$1_1 = \chi_1$	1	.	.	.	.	.
$1677390_1 = \chi_{19}$	.	1	.	.	.	.
$8783424_1 = \chi_{27}$	1	.	1	.	.	.
$166559744_2 = \chi_{65}$	.	.	1	.	1	.
$207793431_1 = \chi_{69}$	.	1	.	.	.	1
$287721720_1 = \chi_{79}$	.	.	.	1	1	.
$336061440_1 = \chi_{87}$	.	.	.	1	.	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_{19} &= 1677390_1 \\ \varphi_{27} &= 8783423_1 \\ \varphi_{60} &= 129945399_1 \\ \varphi_{65} &= 157776321_1 \\ \varphi_{69} &= 206116041_1 \end{aligned}$$

<b>Block 2:</b>	$\varphi_2$	$\varphi_{13}$	$\varphi_{33}$	$\varphi_{43}$	$\varphi_{51}$	$\varphi_{74}$
$782_1 = \chi_2$	1	.	.	.	.	.
$789360_1 = \chi_{13}$	.	1	.	.	.	.
$15096510_1 = \chi_{33}$	.	1	1	.	.	.
$48308832_1 = \chi_{48}$	.	.	1	1	.	.
$55740960_1 = \chi_{49}$	1	.	.	.	1	.
$264536064_1 = \chi_{76}$	.	.	.	1	.	1
$286274560_1 = \chi_{78}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_2 &= 782_1 \\ \varphi_{13} &= 789360_1 \\ \varphi_{33} &= 14307150_1 \\ \varphi_{43} &= 34001682_1 \\ \varphi_{51} &= 55740178_1 \\ \varphi_{74} &= 230534382_1 \end{aligned}$$

<b>Block 3:</b>	$\varphi_3$	$\varphi_6$	$\varphi_{23}$	$\varphi_{25}$	$\varphi_{32}$	$\varphi_{56}$
$3588_1 = \chi_3$	1	.	.	.	.	.
$30888_1 = \chi_6$	.	1	.	.	.	.
$2322540_1 = \chi_{22}$	1	.	1	.	.	.
$6709560_1 = \chi_{25}$	.	.	1	1	.	.
$12077208_1 = \chi_{32}$	.	1	.	.	1	.
$65875680_1 = \chi_{55}$	.	.	.	1	.	1
$73531392_1 = \chi_{56}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_3 &= 3588_1 \\ \varphi_6 &= 30888_1 \\ \varphi_{23} &= 2318952_1 \\ \varphi_{25} &= 4390608_1 \\ \varphi_{32} &= 12046320_1 \\ \varphi_{56} &= 61485072_1 \end{aligned}$$

<b>Block 4:</b>	$\varphi_4$	$\varphi_9$	$\varphi_{22}$	$\varphi_{34}$	$\varphi_{50}$	$\varphi_{62}$
$5083_1 = \chi_4$	1	.	.	.	.	.
$111826_1 = \chi_9$	.	1	.	.	.	.
$2236520_1 = \chi_{21}$	1	.	1	.	.	.
$17892160_1 = \chi_{34}$	.	1	.	1	.	.
$57254912_1 = \chi_{52}$	.	.	1	.	1	.
$166559744_1 = \chi_{64}$	.	.	.	1	.	1
$203802885_1 = \chi_{68}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_4 &= 5083_1 \\ \varphi_9 &= 111826_1 \\ \varphi_{22} &= 2231437_1 \\ \varphi_{34} &= 17780334_1 \\ \varphi_{50} &= 55023475_1 \\ \varphi_{62} &= 148779410_1 \end{aligned}$$

<b>Block 5:</b>	$\varphi_5$	$\varphi_{35}$	$\varphi_{39}$	$\varphi_{49}$	$\varphi_{68}$	$\varphi_{81}$
$25806_1 = \chi_5$	1	.	.	.	.	.
$18812574_1 = \chi_{35}$	.	1	.	.	.	.
$22644765_1 = \chi_{39}$	1	.	1	.	.	.
$73531392_2 = \chi_{57}$	.	.	1	1	.	.
$244563462_1 = \chi_{73}$	.	.	.	1	1	.
$322058880_1 = \chi_{86}$	.	1	.	.	.	1
$496897335_1 = \chi_{93}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_5 &= 25806_1 \\ \varphi_{35} &= 18812574_1 \\ \varphi_{39} &= 22618959_1 \\ \varphi_{49} &= 50912433_1 \\ \varphi_{68} &= 193651029_1 \\ \varphi_{81} &= 303246306_1 \end{aligned}$$

<b>Block 6:</b>	$\varphi_7$	$\varphi_{10}$	$\varphi_{21}$	$\varphi_{26}$	$\varphi_{40}$	$\varphi_{75}$
$60996_1 = \chi_7$	1	.	.	.	.	.
$274482_1 = \chi_{10}$	.	1	.	.	.	.
$5533110_1 = \chi_{24}$	1	.	.	1	.	.
$7468032_1 = \chi_{26}$	.	.	1	1	.	.
$26838240_1 = \chi_{40}$	.	1	.	.	1	.
$264536064_2 = \chi_{77}$	.	.	1	.	.	1
$289103904_1 = \chi_{82}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_7 &= 60996_1 \\ \varphi_{10} &= 274482_1 \\ \varphi_{21} &= 1995918_1 \\ \varphi_{26} &= 5472114_1 \\ \varphi_{40} &= 26563758_1 \\ \varphi_{75} &= 262540146_1 \end{aligned}$$

<b>Block 8:</b>	$\varphi_{11}$	$\varphi_{20}$	$\varphi_{59}$	$\varphi_{61}$	$\varphi_{70}$	$\varphi_{78}$
$279565_1 = \chi_{11}$	1	.	.	.	.	.
$1951872_1 = \chi_{20}$	.	1	.	.	.	.
$97976320_1 = \chi_{60}$	.	1	1	.	.	.
$133398252_1 = \chi_{61}$	1	.	.	1	.	.
$343529472_1 = \chi_{89}$	.	.	.	1	1	.
$362316240_1 = \chi_{91}$	.	.	1	.	.	1
$476702577_1 = \chi_{92}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{11} &= 279565_1 \\ \varphi_{20} &= 1951872_1 \\ \varphi_{59} &= 96024448_1 \\ \varphi_{61} &= 133118687_1 \\ \varphi_{70} &= 210410785_1 \\ \varphi_{78} &= 266291792_1 \end{aligned}$$