

$Co_1 \pmod{13}$

	blocks	defect	matrix
$G :$	1	1	13×12
	2	1	13×12
	3	0	$299_1 = \chi_3, \varphi_3$
	4	1	8×6
	5	0	$27300_1 = \chi_7, \varphi_7$
	6	0	$37674_1 = \chi_8, \varphi_8$
	7	0	$80730_1 = \chi_{10}, \varphi_{10}$
	8	0	$313950_1 = \chi_{12}, \varphi_{12}$
	9	0	$345345_1 = \chi_{13}, \varphi_{13}$
	10	0	$376740_1 = \chi_{14}, \varphi_{14}$
	11	0	$644644_1 = \chi_{16}, \varphi_{16}$
	12	0	$822250_1 = \chi_{19}, \varphi_{19}$
	13	0	$871884_1 = \chi_{20}, \varphi_{20}$
	14	0	$1450449_1 = \chi_{22}, \varphi_{22}$
	15	0	$2055625_1 = \chi_{25}, \varphi_{25}$
	16	0	$2417415_1 = \chi_{26}, \varphi_{26}$
	17	0	$2877875_1 = \chi_{30}, \varphi_{29}$
	18	0	$4100096_1 = \chi_{31}, \varphi_{30}$
	19	0	$5494125_1 = \chi_{32}, \varphi_{31}$
	20	0	$5801796_1 = \chi_{33}, \varphi_{32}$
	21	0	$7628985_1 = \chi_{34}, \varphi_{33}$
	22	0	$9669660_1 = \chi_{36}, \varphi_{35}$
	23	0	$12432420_1 = \chi_{37}, \varphi_{36}$
	24	0	$16347825_1 = \chi_{38}, \varphi_{37}$
	25	0	$21528000_1 = \chi_{41}, \varphi_{42}$
	26	0	$21579129_1 = \chi_{42}, \varphi_{43}$
	27	0	$24174150_1 = \chi_{44}, \varphi_{45}$
	28	0	$24667500_1 = \chi_{45}, \varphi_{46}$
	29	0	$25900875_1 = \chi_{47}, \varphi_{47}$
	30	0	$31574400_1 = \chi_{48}, \varphi_{48}$
	31	0	$46621575_1 = \chi_{52}, \varphi_{50}$
	32	0	$51571520_1 = \chi_{53}, \varphi_{51}$
	33	0	$55255200_1 = \chi_{54}, \varphi_{52}$
	34	0	$57544344_1 = \chi_{55}, \varphi_{53}$
	35	0	$60435375_1 = \chi_{56}, \varphi_{54}$
	36	0	$65270205_1 = \chi_{57}, \varphi_{55}$
	37	0	$66602250_1 = \chi_{58}, \varphi_{56}$
	38	0	$77702625_1 = \chi_{59}, \varphi_{58}$
	39	0	$83720000_1 = \chi_{60}, \varphi_{59}$
	40	0	$85250880_1 = \chi_{61}, \varphi_{60}$

	blocks	defect	matrix
	41	0	$91547820_1 = \chi_{62}, \varphi_{61}$
	42	0	$100725625_1 = \chi_{63}, \varphi_{62}$
	43	0	$106142400_1 = \chi_{64}, \varphi_{63}$
	44	0	$109882500_1 = \chi_{65}, \varphi_{66}$
	45	0	$163478250_1 = \chi_{67}, \varphi_{67}$
	46	0	$184184000_1 = \chi_{68}, \varphi_{69}$
	47	0	$201451250_1 = \chi_{72}, \varphi_{72}$
	48	0	$210974400_1 = \chi_{75}, \varphi_{73}$
	49	0	$215547904_1 = \chi_{76}, \varphi_{74}$
	50	0	$219648000_1 = \chi_{77}, \varphi_{75}$
	51	0	$241741500_1 = \chi_{78}, \varphi_{76}$
	52	0	$247235625_1 = \chi_{79}, \varphi_{77}$
	53	0	$251756505_1 = \chi_{80}, \varphi_{78}$
	54	0	$257857600_1 = \chi_{81}, \varphi_{79}$
	55	0	$259008750_1 = \chi_{82}, \varphi_{80}$
	56	0	$267014475_1 = \chi_{83}, \varphi_{81}$
	57	0	$280280000_1 = \chi_{84}, \varphi_{83}$
	58	0	$292953024_1 = \chi_{85}, \varphi_{84}$
	59	0	$299710125_1 = \chi_{86}, \varphi_{85}$
	60	0	$302176875_1 = \chi_{87}, \varphi_{86}$
	61	0	$309429120_1 = \chi_{88}, \varphi_{87}$
	62	0	$326956500_1 = \chi_{89}, \varphi_{89}$
	63	0	$360062976_1 = \chi_{90}, \varphi_{90}$
	64	0	$402902500_1 = \chi_{92}, \varphi_{91}$
	65	0	$469945476_1 = \chi_{94}, \varphi_{92}$
	66	0	$469945476_2 = \chi_{95}, \varphi_{93}$
	67	0	$483483000_1 = \chi_{96}, \varphi_{94}$
	68	0	$503513010_1 = \chi_{98}, \varphi_{95}$
	69	0	$522161640_1 = \chi_{100}, \varphi_{96}$
	70	0	$551675124_1 = \chi_{101}, \varphi_{97}$
2.G :	71	1	13×12
	72	1	8×6
	73	0	$4576_1 = \chi_{105}, \varphi_{101}$
	74	0	$95680_1 = \chi_{107}, \varphi_{103}$
	75	0	$299000_1 = \chi_{109}, \varphi_{105}$
	76	0	$315744_1 = \chi_{110}, \varphi_{106}$
	77	0	$351624_1 = \chi_{111}, \varphi_{107}$
	78	0	$789360_1 = \chi_{113}, \varphi_{109}$
	79	0	$1841840_1 = \chi_{114}, \varphi_{110}$
	80	0	$1937520_1 = \chi_{115}, \varphi_{111}$

	blocks	defect	matrix
	81	0	$4004000_1 = \chi_{116}, \varphi_{112}$
	82	0	$5051904_1 = \chi_{117}, \varphi_{113}$
	83	0	$6446440_1 = \chi_{118}, \varphi_{114}$
	84	0	$6446440_2 = \chi_{119}, \varphi_{115}$
	85	0	$7104240_1 = \chi_{120}, \varphi_{116}$
	86	0	$9152000_1 = \chi_{121}, \varphi_{117}$
	$87 = \overline{86}$	0	$9152000_2 = \chi_{122}, \varphi_{118}$
	88	0	$11051040_1 = \chi_{123}, \varphi_{119}$
	89	0	$13156000_1 = \chi_{124}, \varphi_{120}$
	90	0	$15002624_1 = \chi_{125}, \varphi_{121}$
	$91 = \overline{90}$	0	$15002624_2 = \chi_{126}, \varphi_{122}$
	92	0	$15471456_1 = \chi_{127}, \varphi_{123}$
	93	0	$17050176_1 = \chi_{130}, \varphi_{126}$
	94	0	$18987696_1 = \chi_{132}, \varphi_{128}$
	95	0	$19734000_1 = \chi_{133}, \varphi_{129}$
	96	0	$44204160_1 = \chi_{137}, \varphi_{133}$
	97	0	$49335000_1 = \chi_{138}, \varphi_{134}$
	98	0	$50519040_1 = \chi_{139}, \varphi_{135}$
	99	0	$51571520_2 = \chi_{140}, \varphi_{136}$
	100	0	$62790000_1 = \chi_{144}, \varphi_{139}$
	101	0	$67358720_1 = \chi_{145}, \varphi_{140}$
	102	0	$112519680_1 = \chi_{147}, \varphi_{142}$
	103	0	$139243104_1 = \chi_{148}, \varphi_{143}$
	104	0	$161161000_1 = \chi_{149}, \varphi_{145}$
	105	0	$210496000_1 = \chi_{151}, \varphi_{146}$
	106	0	$215547904_2 = \chi_{152}, \varphi_{147}$
	107	0	$230230000_1 = \chi_{153}, \varphi_{148}$
	108	0	$247543296_1 = \chi_{154}, \varphi_{149}$
	109	0	$282906624_1 = \chi_{155}, \varphi_{150}$
	110	0	$287006720_1 = \chi_{156}, \varphi_{152}$
	111	0	$313524224_1 = \chi_{157}, \varphi_{153}$
	112	0	$351624000_1 = \chi_{159}, \varphi_{154}$
	113	0	$394680000_1 = \chi_{160}, \varphi_{155}$
	114	0	$464143680_1 = \chi_{161}, \varphi_{156}$
	115	0	$517899096_1 = \chi_{163}, \varphi_{158}$
	116	0	$805805000_1 = \chi_{166}, \varphi_{159}$
	117	0	$1021620600_1 = \chi_{167}, \varphi_{160}$

$$\begin{array}{llll}
\varphi_2 & = & 276_1 & \varphi_{49} = 42244146_1 \\
\varphi_4 & = & 1771_1 & \varphi_{57} = 77423842_1 \\
\varphi_9 & = & 43999_1 & \varphi_{64} = 108488654_1 \\
\varphi_{23} & = & 1769229_1 & \varphi_{65} = 108531158_1 \\
\varphi_{28} & = & 2772857_1 & \varphi_{70} = 185470482_1 \\
\varphi_{44} & = & 22021143_1 & \varphi_{82} = 278786542_1
\end{array}$$

Block 4:	φ_5	φ_{15}	φ_{27}	φ_{39}	φ_{40}	φ_{41}
$8855_1 = \chi_5$	1	.	.	.	.	.
$483000_1 = \chi_{15}$	1	1	.	.	.	.
$2464749_1 = \chi_{27}$	.	.	1	.	.	.
$2464749_2 = \chi_{28}$	.	.	1	.	.	.
$21049875_1 = \chi_{40}$	.	1	.	.	1	.
$23244375_1 = \chi_{43}$	.	.	1	.	.	1
$40166280_1 = \chi_{49}$	.	.	.	1	1	.
$40370176_1 = \chi_{50}$	.	.	.	1	.	1

$$\begin{array}{ll}
\varphi_5 & = 8855_1 \\
\varphi_{15} & = 474145_1 \\
\varphi_{27} & = 2464749_1 \\
\varphi_{39} & = 19590550_1 \\
\varphi_{40} & = 20575730_1 \\
\varphi_{41} & = 20779626_1
\end{array}$$

Block 71:	φ_{98}	φ_{100}	φ_{102}	φ_{104}	φ_{124}	φ_{125}	φ_{127}	φ_{131}	φ_{132}	φ_{137}	φ_{141}
$24_1 = \chi_{102}$	1	.	.	.	.	.	.	.	.	.	.
$2576_1 = \chi_{104}$	1	1	.	.	.	.	.	.	.	.	.
$40480_1 = \chi_{106}$	.	.	1	.	.	.	.	.	.	.	.
$170016_1 = \chi_{108}$	.	.	1	1	.	.	.	.	.	.	.
$16170000_1 = \chi_{128}$	.	.	.	.	1	.	.	.	.	.	.
$16170000_2 = \chi_{129}$	.	.	.	.	.	1	.	.	.	.	.
$17310720_1 = \chi_{131}$	.	1	.	.	.	.	1	.	.	.	.
$40370176_2 = \chi_{135}$	.	.	.	.	.	.	.	1	.	.	.
$40370176_3 = \chi_{136}$	.	.	.	.	.	.	.	.	1	.	.
$59153976_1 = \chi_{141}$	.	.	.	1	.	.	.	.	.	1	.
$106260000_1 = \chi_{146}$	.	.	.	.	.	.	1	.	.	.	1
$342752256_1 = \chi_{158}$	.	.	.	.	.	.	.	.	.	1	.
$485760000_1 = \chi_{162}$	.	.	.	.	1	1	.	1	1	.	1

(Block 71:)	φ_{151}		
$24_1 = \chi_{102}$	.	$\varphi_{98} = 24_1$	
$2576_1 = \chi_{104}$	.	$\varphi_{100} = 2552_1$	
$40480_1 = \chi_{106}$	.	$\varphi_{102} = 40480_1$	
$170016_1 = \chi_{108}$	.	$\varphi_{104} = 129536_1$	
$16170000_1 = \chi_{128}$	.	$\varphi_{124} = 16170000_1$	
$16170000_2 = \chi_{129}$	.	$\varphi_{125} = 16170000_2$	
$17310720_1 = \chi_{131}$	.	$\varphi_{127} = 17308168_1$	
$40370176_2 = \chi_{135}$	.	$\varphi_{131} = 40370176_1$	
$40370176_3 = \chi_{136}$	.	$\varphi_{132} = 40370176_2$	
$59153976_1 = \chi_{141}$	.	$\varphi_{137} = 59024440_1$	
$106260000_1 = \chi_{146}$	.	$\varphi_{141} = 88951832_1$	
$342752256_1 = \chi_{158}$	1	$\varphi_{151} = 283727816_1$	
$485760000_1 = \chi_{162}$	1		

Block 72:	φ_{99}	φ_{108}	φ_{130}	φ_{138}	φ_{144}	φ_{157}		
$2024_1 = \chi_{103}$	1	.	.	.	.	.	$\varphi_{99} = 2024_1$	
$388080_1 = \chi_{112}$	1	1	.	.	.	.	$\varphi_{108} = 386056_1$	
$34155000_1 = \chi_{134}$	.	1	1	.	.	.	$\varphi_{130} = 33768944_1$	
$59153976_2 = \chi_{142}$	.	.	.	1	.	.	$\varphi_{138} = 59153976_1$	
$59153976_3 = \chi_{143}$	.	.	.	1	.	.	$\varphi_{144} = 156648976_1$	
$190417920_1 = \chi_{150}$	.	.	1	.	1	.	$\varphi_{157} = 498711024_1$	
$557865000_1 = \chi_{164}$	.	.	.	1	.	1		
$655360000_1 = \chi_{165}$	.	.	.	.	1	1		