

$O_8^+(2) \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	7×6
	2	0	$28_1 = \chi_2, \varphi_2$
	3	0	$35_1 = \chi_3, \varphi_3$
	4	0	$35_2 = \chi_4, \varphi_4$
	5	0	$35_3 = \chi_5, \varphi_5$
	6	0	$84_1 = \chi_7, \varphi_7$
	7	0	$84_2 = \chi_8, \varphi_8$
	8	0	$84_3 = \chi_9, \varphi_9$
	9	0	$175_1 = \chi_{10}, \varphi_{10}$
	10	0	$210_1 = \chi_{11}, \varphi_{11}$
	11	0	$210_2 = \chi_{12}, \varphi_{12}$
	12	0	$210_3 = \chi_{13}, \varphi_{13}$
	13	0	$350_1 = \chi_{15}, \varphi_{15}$
	14	0	$525_1 = \chi_{16}, \varphi_{16}$
	15	0	$567_1 = \chi_{17}, \varphi_{17}$
	16	0	$567_2 = \chi_{18}, \varphi_{18}$
	17	0	$567_3 = \chi_{19}, \varphi_{19}$
	18	0	$700_1 = \chi_{20}, \varphi_{20}$
	19	0	$700_2 = \chi_{21}, \varphi_{21}$
	20	0	$700_3 = \chi_{22}, \varphi_{22}$
	21	0	$700_4 = \chi_{23}, \varphi_{23}$
	22	0	$840_1 = \chi_{24}, \varphi_{24}$
	23	0	$840_2 = \chi_{25}, \varphi_{25}$
	24	0	$840_3 = \chi_{26}, \varphi_{26}$
	25	0	$1050_1 = \chi_{28}, \varphi_{28}$
	26	0	$1050_2 = \chi_{29}, \varphi_{29}$
	27	0	$1050_3 = \chi_{30}, \varphi_{30}$
	28	0	$1344_1 = \chi_{31}, \varphi_{31}$
	29	0	$1344_2 = \chi_{32}, \varphi_{32}$
	30	0	$1344_3 = \chi_{33}, \varphi_{33}$
	31	0	$1400_1 = \chi_{34}, \varphi_{34}$
	32	0	$1575_1 = \chi_{35}, \varphi_{35}$
	33	0	$1575_2 = \chi_{36}, \varphi_{36}$
	34	0	$1575_3 = \chi_{37}, \varphi_{37}$
	35	0	$2100_1 = \chi_{38}, \varphi_{38}$
	36	0	$2100_2 = \chi_{39}, \varphi_{39}$

	blocks	defect	matrix
	37	0	$2100_3 = \chi_{40}, \varphi_{40}$
	38	0	$2240_1 = \chi_{41}, \varphi_{41}$
	39	0	$2240_2 = \chi_{42}, \varphi_{42}$
	40	0	$2240_3 = \chi_{43}, \varphi_{43}$
	41	0	$2268_1 = \chi_{44}, \varphi_{44}$
	42	0	$2268_2 = \chi_{45}, \varphi_{45}$
	43	0	$2268_3 = \chi_{46}, \varphi_{46}$
	44	0	$2835_1 = \chi_{47}, \varphi_{48}$
	45	0	$2835_2 = \chi_{48}, \varphi_{49}$
	46	0	$2835_3 = \chi_{49}, \varphi_{50}$
	47	0	$4200_1 = \chi_{52}, \varphi_{52}$
$2.G :$	48	1	7×6
	49	0	$56_1 = \chi_{55}, \varphi_{54}$
	50	0	$112_1 = \chi_{56}, \varphi_{55}$
	51	0	$224_1 = \chi_{58}, \varphi_{57}$
	52	0	$224_2 = \chi_{59}, \varphi_{58}$
	53	0	$448_1 = \chi_{61}, \varphi_{60}$
	54	0	$560_1 = \chi_{62}, \varphi_{61}$
	55	0	$672_1 = \chi_{63}, \varphi_{62}$
	56	0	$672_2 = \chi_{64}, \varphi_{63}$
	57	0	$840_4 = \chi_{65}, \varphi_{64}$
	58	0	$1008_1 = \chi_{66}, \varphi_{65}$
	59	0	$1008_2 = \chi_{67}, \varphi_{66}$
	60	0	$1008_3 = \chi_{68}, \varphi_{67}$
	61	0	$1400_2 = \chi_{70}, \varphi_{70}$
	62	0	$1400_3 = \chi_{71}, \varphi_{71}$
	63	0	$2800_1 = \chi_{73}, \varphi_{72}$
	64	0	$2800_2 = \chi_{74}, \varphi_{73}$
	65	0	$2800_3 = \chi_{75}, \varphi_{74}$
	66	0	$3360_1 = \chi_{77}, \varphi_{76}$
	67	0	$3584_1 = \chi_{78}, \varphi_{77}$
	68	0	$3584_2 = \chi_{79}, \varphi_{78}$
	69	0	$4200_2 = \chi_{81}, \varphi_{79}$
	70	0	$4536_1 = \chi_{82}, \varphi_{80}$
	71	0	$5600_1 = \chi_{83}, \varphi_{81}$

Block 1:	φ_1	φ_6	φ_{14}	φ_{27}	φ_{47}	φ_{51}
$1_1 = \chi_1$	1	.	.	.	.	.
$50_1 = \chi_6$	.	1	.	.	.	.
$300_1 = \chi_{14}$	1	.	1	.	.	.
$972_1 = \chi_{27}$	.	1	.	1	.	.
$3200_1 = \chi_{50}$	.	.	.	1	1	.
$4096_1 = \chi_{51}$	.	.	1	.	.	1
$6075_1 = \chi_{53}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_6 &= 50_1 \\ \varphi_{14} &= 299_1 \\ \varphi_{27} &= 922_1 \\ \varphi_{47} &= 2278_1 \\ \varphi_{51} &= 3797_1 \end{aligned}$$

Block 48:	φ_{53}	φ_{56}	φ_{59}	φ_{68}	φ_{69}	φ_{75}
$8_1 = \chi_{54}$	1	.	.	.	.	.
$160_1 = \chi_{57}$	1	1	.	.	.	.
$400_1 = \chi_{60}$	.	.	1	.	.	.
$1296_1 = \chi_{69}$	.	1	.	1	.	.
$2400_1 = \chi_{72}$	.	.	.	1	1	.
$3240_1 = \chi_{76}$	.	.	1	.	.	1
$4096_2 = \chi_{80}$	.	.	.	.	1	1

$$\begin{aligned} \varphi_{53} &= 8_1 \\ \varphi_{56} &= 152_1 \\ \varphi_{59} &= 400_1 \\ \varphi_{68} &= 1144_1 \\ \varphi_{69} &= 1256_1 \\ \varphi_{75} &= 2840_1 \end{aligned}$$