

$$O_{10}^+(\mathbf{2}) \quad (\text{mod } \mathbf{2})$$

	blocks	defect	matrix
$G :$	1	20	96×31
	2	0	$1048576_1 = \chi_{93}, \varphi_{32}$

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}	φ_{13}	φ_{14}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.	.	.
$155_1 = \chi_2$	1	1	.	.	1	1	.	.	.	.	.	.	.	.
$186_1 = \chi_3$	.	1	1	1	1	1	.	.	.	.	.	.	.	.
$340_1 = \chi_4$	2	3	.	.	1	1	.	.	1	.	.	.	.	.
$868_1 = \chi_5$	2	2	1	1	1	1	.	.	.	.	.	.	1	.
$2108_1 = \chi_6$	2	4	1	1	1	2	1	1	.	.	1	1	1	.
$5270_1 = \chi_7$	4	3	2	2	2	1	1	1	2	1	.	.	2	.
$6324_1 = \chi_8$	4	4	1	1	4	2	.	.	.	.	.	.	2	.
$7905_1 = \chi_9$	7	9	1	1	5	4	1	1	1	.	1	1	2	.
$9300_1 = \chi_{10}$	8	4	3	3	3	1	3	3	3	1	1	1	2	1
$11067_1 = \chi_{11}$	9	8	2	2	6	3	1	1	3	1	.	.	3	.
$13020_1 = \chi_{12}$	10	11	3	3	6	4	2	2	3	1	1	1	4	.
$13888_1 = \chi_{13}$	10	14	5	5	6	7	2	2	4	.	1	1	3	.
$14756_1 = \chi_{14}$	10	6	3	3	6	2	3	3	3	1	1	1	3	1
$15810_1 = \chi_{15}$	12	9	5	5	8	4	3	3	3	1	1	1	4	1
$18445_1 = \chi_{16}$	13	13	3	3	10	5	2	2	4	.	1	1	3	.
$18445_2 = \chi_{17}$	13	14	7	7	7	7	4	4	4	.	2	2	4	1
$22848_1 = \chi_{18}$	14	10	4	4	6	4	2	2	6	3	.	.	5	.
$31620_1 = \chi_{19}$	14	12	6	6	7	6	4	4	4	2	2	2	3	1
$31620_2 = \chi_{20}$	8	6	5	5	3	3	5	5	3	1	2	2	2	1
$36890_1 = \chi_{21}$	14	15	4	4	8	7	2	2	5	1	1	1	5	.
$42160_1 = \chi_{22}$	20	16	8	8	12	7	5	5	7	2	2	2	4	1
$50592_1 = \chi_{23}$	14	14	4	4	6	7	2	2	6	2	1	1	3	.
$55335_1 = \chi_{24}$	21	18	5	9	13	7	6	5	6	1	4	2	5	1
$55335_2 = \chi_{25}$	21	18	9	5	13	7	5	6	6	1	2	4	5	2
$66402_1 = \chi_{26}$	20	17	8	8	10	8	6	6	8	2	2	2	6	1
$73780_1 = \chi_{27}$	30	28	10	10	18	13	6	6	10	2	3	3	7	1
$73780_2 = \chi_{28}$	24	22	9	9	14	10	7	7	9	1	3	3	6	1
$73780_3 = \chi_{29}$	32	23	10	10	17	10	6	6	11	6	2	2	7	1
$101184_1 = \chi_{30}$	22	22	9	9	10	11	4	4	10	2	1	1	8	.
$110670_1 = \chi_{31}$	48	43	18	18	27	20	11	11	16	5	5	5	12	2
$110670_2 = \chi_{32}$	42	37	18	18	23	16	13	13	12	2	7	7	11	4
$110670_3 = \chi_{33}$	32	27	11	15	17	12	11	10	11	2	6	4	8	2
$110670_4 = \chi_{34}$	32	27	15	11	17	12	10	11	11	2	4	6	8	3
$147560_1 = \chi_{35}$	56	52	21	21	31	24	14	14	20	5	6	6	16	2
$147560_2 = \chi_{36}$	46	40	18	18	23	19	11	11	17	5	4	4	14	2
$148800_1 = \chi_{37}$	50	40	15	15	30	15	14	14	16	4	7	7	11	3
$158100_1 = \chi_{38}$	50	39	16	16	26	17	9	9	20	7	2	2	15	1
$166005_1 = \chi_{39}$	51	42	16	16	27	18	11	11	20	6	3	3	16	1
$166005_2 = \chi_{40}$	53	45	20	20	30	19	16	16	17	3	8	8	13	4

(Block 1:)	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	φ_{20}	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}	φ_{26}	φ_{27}
$1_1 = \chi_1$	.	.	.	.	.	.	.	.	.	.	.	.	.
$155_1 = \chi_2$	.	.	.	.	.	.	.	.	.	.	.	.	.
$186_1 = \chi_3$	.	.	.	.	.	.	.	.	.	.	.	.	.
$340_1 = \chi_4$	.	.	.	.	.	.	.	.	.	.	.	.	.
$868_1 = \chi_5$	.	.	.	.	.	.	.	.	.	.	.	.	.
$2108_1 = \chi_6$	.	.	.	.	.	.	.	.	.	.	.	.	.
$5270_1 = \chi_7$	.	.	1	.	.	.	.	.	.	.	.	.	.
$6324_1 = \chi_8$	.	1	.	.	.	1	.	.	.	.	.	.	.
$7905_1 = \chi_9$	.	1	.	.	.	1	.	.	.	.	.	.	.
$9300_1 = \chi_{10}$	1	.	1	.	.	.	.	.	.	.	.	.	.
$11067_1 = \chi_{11}$	.	1	1	.	.	1	.	.	.	.	.	.	.
$13020_1 = \chi_{12}$	.	1	1	.	.	1	.	.	.	.	.	.	.
$13888_1 = \chi_{13}$	.	.	2	.	.	1	.	.	.	.	.	.	.
$14756_1 = \chi_{14}$	1	1	1	.	.	1	.	.	.	.	.	.	.
$15810_1 = \chi_{15}$	1	1	1	.	.	1	.	.	.	.	.	.	.
$18445_1 = \chi_{16}$	.	1	1	1	1	1	.	.	.	.	.	.	.
$18445_2 = \chi_{17}$	1	.	2	.	.	1	.	.	.	.	.	.	.
$22848_1 = \chi_{18}$	.	1	1	.	.	1	.	.	1	.	.	.	.
$31620_1 = \chi_{19}$	1	1	1	.	.	1	1	1	.	.	.	.	.
$31620_2 = \chi_{20}$	1	.	2	.	.	.	.	.	.	1	.	.	.
$36890_1 = \chi_{21}$	.	1	1	.	.	1	.	.	.	.	.	.	1
$42160_1 = \chi_{22}$	1	1	2	1	1	1	1	1	.	.	.	.	.
$50592_1 = \chi_{23}$	.	1	1	.	.	1	1	1	.	.	.	.	1
$55335_1 = \chi_{24}$	2	1	1	1	1	1	.	1	.	.	1	.	.
$55335_2 = \chi_{25}$	1	1	1	1	1	1	1	.	.	.	.	1	.
$66402_1 = \chi_{26}$	1	1	3	.	.	1	.	.	.	1	.	.	1
$73780_1 = \chi_{27}$	1	2	2	1	1	2	1	1	.	.	.	.	1
$73780_2 = \chi_{28}$	1	1	3	1	1	1	.	.	.	1	.	.	1
$73780_3 = \chi_{29}$	1	3	1	1	1	2	2	2	1	.	.	.	.
$101184_1 = \chi_{30}$	.	.	3	.	.	2	.	.	.	.	.	.	1
$110670_1 = \chi_{31}$	2	3	4	1	1	3	2	2	.	.	.	.	1
$110670_2 = \chi_{32}$	4	1	3	1	1	2	1	1	.	.	1	1	.
$110670_3 = \chi_{33}$	3	1	3	1	1	1	.	1	.	1	1	.	1
$110670_4 = \chi_{34}$	2	1	3	1	1	1	1	.	.	1	.	1	1
$147560_1 = \chi_{35}$	2	3	6	1	1	3	1	1	.	1	.	.	2
$147560_2 = \chi_{36}$	2	2	5	.	.	4	1	1	.	.	.	.	1
$148800_1 = \chi_{37}$	3	3	2	3	3	2	1	1	1	1	1	1	.
$158100_1 = \chi_{38}$	1	3	4	1	1	4	1	1	1	.	.	.	1
$166005_1 = \chi_{39}$	1	3	5	1	1	4	.	.	1	1	.	.	1
$166005_2 = \chi_{40}$	4	2	4	2	2	2	1	1	.	1	1	1	1

(Block 1:)	φ_{28}	φ_{29}	φ_{30}	φ_{31}
$1_1 = \chi_1$	.	.	.	.
$155_1 = \chi_2$	.	.	.	.
$186_1 = \chi_3$	.	.	.	.
$340_1 = \chi_4$	.	.	.	.
$868_1 = \chi_5$	.	.	.	.
$2108_1 = \chi_6$	.	.	.	.
$5270_1 = \chi_7$	.	.	.	.
$6324_1 = \chi_8$	.	.	.	.
$7905_1 = \chi_9$	.	.	.	.
$9300_1 = \chi_{10}$	.	.	.	.
$11067_1 = \chi_{11}$	.	.	.	.
$13020_1 = \chi_{12}$	.	.	.	.
$13888_1 = \chi_{13}$	.	.	.	.
$14756_1 = \chi_{14}$	.	.	.	.
$15810_1 = \chi_{15}$	.	.	.	.
$18445_1 = \chi_{16}$	.	.	.	.
$18445_2 = \chi_{17}$	.	.	.	.
$22848_1 = \chi_{18}$	.	.	.	.
$31620_1 = \chi_{19}$	.	.	.	.
$31620_2 = \chi_{20}$	.	.	.	.
$36890_1 = \chi_{21}$	.	.	.	.
$42160_1 = \chi_{22}$	.	.	.	.
$50592_1 = \chi_{23}$	.	.	.	.
$55335_1 = \chi_{24}$	.	.	.	.
$55335_2 = \chi_{25}$	.	.	.	.
$66402_1 = \chi_{26}$	.	.	.	.
$73780_1 = \chi_{27}$	.	.	.	.
$73780_2 = \chi_{28}$	.	.	.	.
$73780_3 = \chi_{29}$	.	.	.	.
$101184_1 = \chi_{30}$	1	.	.	.
$110670_1 = \chi_{31}$	.	.	.	.
$110670_2 = \chi_{32}$	.	.	.	.
$110670_3 = \chi_{33}$	.	.	.	.
$110670_4 = \chi_{34}$	.	.	.	.
$147560_1 = \chi_{35}$	.	.	.	.
$147560_2 = \chi_{36}$	1	.	.	.
$148800_1 = \chi_{37}$	.	.	.	.
$158100_1 = \chi_{38}$	1	.	.	.
$166005_1 = \chi_{39}$	1	.	.	.
$166005_2 = \chi_{40}$	.	.	.	.

(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}	φ_{13}	φ_{14}
$166005_3 = \chi_{41}$	57	48	17	17	31	21	10	10	21	7	3	3	17	1
$168640_1 = \chi_{42}$	46	38	20	20	24	18	14	14	14	4	7	7	11	4
$208320_1 = \chi_{43}$	62	46	24	24	30	22	16	16	24	9	5	5	16	3
$221340_1 = \chi_{44}$	74	60	31	31	39	27	23	23	24	7	11	11	17	6
$221340_2 = \chi_{45}$	68	57	23	23	35	26	15	15	26	8	5	5	20	2
$236096_1 = \chi_{46}$	62	48	19	19	34	19	16	16	22	6	7	7	16	3
$265608_1 = \chi_{47}$	90	76	29	29	51	32	20	20	30	8	9	9	24	4
$298809_1 = \chi_{48}$	95	85	36	36	51	39	23	23	32	8	11	11	25	5
$316200_1 = \chi_{49}$	98	84	32	32	53	36	23	23	35	9	10	10	26	4
$332010_1 = \chi_{50}$	110	93	37	37	61	40	26	26	38	10	11	11	30	5
$332010_2 = \chi_{51}$	68	55	28	30	36	25	23	22	23	5	12	10	14	5
$332010_3 = \chi_{52}$	68	55	30	28	36	25	22	23	23	5	10	12	14	7
$337280_1 = \chi_{53}$	104	82	36	36	56	34	26	26	34	10	12	12	27	7
$348160_1 = \chi_{54}$	46	46	20	20	26	22	14	14	14	2	6	6	16	3
$355725_1 = \chi_{55}$	117	96	42	42	63	42	29	29	41	12	12	12	31	6
$355725_2 = \chi_{56}$	117	96	42	42	63	42	29	29	41	12	12	12	31	6
$355725_3 = \chi_{57}$	117	96	42	42	63	42	29	29	41	12	12	12	31	6
$355725_4 = \chi_{58}$	117	96	42	42	63	42	29	29	41	12	12	12	31	6
$368900_1 = \chi_{59}$	134	114	46	46	74	50	30	30	45	14	13	13	36	6
$439425_1 = \chi_{60}$	137	115	46	46	73	49	32	32	49	13	13	13	39	6
$439425_2 = \chi_{61}$	87	71	32	32	47	33	21	21	29	11	7	7	27	4
$439425_3 = \chi_{62}$	97	82	36	43	53	37	32	31	33	6	19	13	20	6
$439425_4 = \chi_{63}$	97	82	43	36	53	37	31	32	33	6	13	19	20	10
$439425_5 = \chi_{64}$	107	82	41	41	55	37	27	29	37	12	11	12	26	8
$439425_6 = \chi_{65}$	107	82	41	41	55	37	29	27	37	12	12	11	26	6
$442680_1 = \chi_{66}$	142	116	50	50	77	51	36	36	50	15	15	15	36	7
$442680_2 = \chi_{67}$	136	110	50	50	73	47	38	38	46	12	17	17	35	9
$442680_3 = \chi_{68}$	100	82	39	45	53	37	34	32	34	7	18	14	22	7
$442680_4 = \chi_{69}$	100	82	45	39	53	37	32	34	34	7	14	18	22	10
$498015_1 = \chi_{70}$	125	103	45	47	67	46	33	32	44	12	15	13	31	6
$498015_2 = \chi_{71}$	125	103	47	45	67	46	32	33	44	12	13	15	31	8
$505920_1 = \chi_{72}$	100	82	34	34	56	34	28	28	32	9	12	12	29	6
$539648_1 = \chi_{73}$	98	86	40	40	50	40	28	28	36	6	13	13	24	7
$590240_1 = \chi_{74}$	188	156	69	69	100	69	48	48	64	18	21	21	50	11
$634880_1 = \chi_{75}$	142	118	46	46	82	46	38	38	42	10	19	19	40	10
$664020_1 = \chi_{76}$	156	127	51	51	86	54	36	36	53	17	14	14	45	7
$664020_2 = \chi_{77}$	140	113	55	55	73	52	39	39	50	14	17	17	32	9
$708288_1 = \chi_{78}$	164	138	60	60	88	60	42	42	54	15	18	18	48	10
$711450_1 = \chi_{79}$	188	155	73	68	101	68	51	54	64	16	22	27	45	15
$711450_2 = \chi_{80}$	188	155	68	73	101	68	54	51	64	16	27	22	45	10

(Block 1:)	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	φ_{20}	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}	φ_{26}	φ_{27}
$166005_3 = \chi_{41}$	1	4	4	1	1	5	1	1	1	.	.	.	1
$168640_1 = \chi_{42}$	4	2	3	1	1	2	2	2	.	1	1	1	1
$208320_1 = \chi_{43}$	3	3	6	1	1	4	2	2	1	1	.	.	1
$221340_1 = \chi_{44}$	6	3	6	2	2	3	3	3	.	1	1	1	1
$221340_2 = \chi_{45}$	2	4	6	1	1	5	1	1	1	1	.	.	2
$236096_1 = \chi_{46}$	3	3	3	3	3	3	1	1	1	1	1	1	1
$265608_1 = \chi_{47}$	4	5	5	3	3	6	2	2	1	.	1	1	1
$298809_1 = \chi_{48}$	5	4	7	2	2	6	3	3	.	.	1	1	2
$316200_1 = \chi_{49}$	4	5	7	3	3	6	2	2	1	1	1	1	2
$332010_1 = \chi_{50}$	5	6	8	3	3	7	2	2	1	1	1	1	2
$332010_2 = \chi_{51}$	7	2	7	3	2	2	2	2	.	1	1	1	1
$332010_3 = \chi_{52}$	5	2	7	2	3	2	2	2	.	1	1	1	1
$337280_1 = \chi_{53}$	7	5	5	3	3	6	3	3	1	.	2	2	1
$348160_1 = \chi_{54}$	3	2	6	.	.	6	.	.	.	1	.	.	1
$355725_1 = \chi_{55}$	6	6	9	3	3	7	3	3	1	1	1	1	2
$355725_2 = \chi_{56}$	6	6	9	3	3	7	3	3	1	1	1	1	2
$355725_3 = \chi_{57}$	6	6	9	3	3	7	3	3	1	1	1	1	2
$355725_4 = \chi_{58}$	6	6	9	3	3	7	3	3	1	1	1	1	2
$368900_1 = \chi_{59}$	6	8	9	3	3	9	4	4	1	.	1	1	2
$439425_1 = \chi_{60}$	6	7	11	3	3	9	2	2	1	1	1	1	3
$439425_2 = \chi_{61}$	4	6	7	1	1	9	2	2	2	1	.	.	1
$439425_3 = \chi_{62}$	10	3	9	5	3	3	2	3	.	2	2	1	2
$439425_4 = \chi_{63}$	6	3	9	3	5	3	3	2	.	2	1	2	2
$439425_5 = \chi_{64}$	6	5	9	2	3	6	3	4	1	.	1	1	1
$439425_6 = \chi_{65}$	8	5	9	3	2	6	4	3	1	.	1	1	1
$442680_1 = \chi_{66}$	7	8	11	4	4	8	4	4	1	2	1	1	3
$442680_2 = \chi_{67}$	9	6	10	4	4	7	3	3	1	2	2	2	2
$442680_3 = \chi_{68}$	10	3	10	4	3	3	2	3	.	2	2	1	2
$442680_4 = \chi_{69}$	7	3	10	3	4	3	3	2	.	2	1	2	2
$498015_1 = \chi_{70}$	8	6	11	4	3	7	3	3	1	1	1	1	2
$498015_2 = \chi_{71}$	6	6	11	3	4	7	3	3	1	1	1	1	2
$505920_1 = \chi_{72}$	6	6	7	3	3	8	1	1	2	2	1	1	1
$539648_1 = \chi_{73}$	7	2	12	2	2	5	1	1	.	.	1	1	2
$590240_1 = \chi_{74}$	11	9	14	4	4	12	5	5	1	1	2	2	3
$634880_1 = \chi_{75}$	10	8	6	5	5	10	2	2	2	1	3	3	1
$664020_1 = \chi_{76}$	7	10	10	4	4	13	3	3	3	1	1	1	2
$664020_2 = \chi_{77}$	9	6	14	4	4	7	4	4	1	1	1	1	2
$708288_1 = \chi_{78}$	10	8	12	3	3	13	3	3	2	1	2	2	2
$711450_1 = \chi_{79}$	10	8	15	5	7	9	5	5	1	2	2	3	3
$711450_2 = \chi_{80}$	15	8	15	7	5	9	5	5	1	2	3	2	3

(Block 1:)	φ_{28}	φ_{29}	φ_{30}	φ_{31}
$166005_3 = \chi_{41}$	1	.	.	.
$168640_1 = \chi_{42}$	.	.	.	.
$208320_1 = \chi_{43}$	1	.	.	.
$221340_1 = \chi_{44}$	.	.	.	.
$221340_2 = \chi_{45}$	1	.	.	.
$236096_1 = \chi_{46}$	1	.	.	.
$265608_1 = \chi_{47}$	1	.	.	.
$298809_1 = \chi_{48}$	1	.	.	.
$316200_1 = \chi_{49}$	1	.	.	.
$332010_1 = \chi_{50}$	1	.	.	.
$332010_2 = \chi_{51}$	.	.	1	.
$332010_3 = \chi_{52}$	.	1	.	.
$337280_1 = \chi_{53}$	1	.	.	.
$348160_1 = \chi_{54}$	1	.	.	1
$355725_1 = \chi_{55}$	1	.	.	.
$355725_2 = \chi_{56}$	1	.	.	.
$355725_3 = \chi_{57}$	1	.	.	.
$355725_4 = \chi_{58}$	1	.	.	.
$368900_1 = \chi_{59}$	1	.	.	.
$439425_1 = \chi_{60}$	2	.	.	.
$439425_2 = \chi_{61}$	1	.	.	1
$439425_3 = \chi_{62}$	.	.	1	.
$439425_4 = \chi_{63}$	.	1	.	.
$439425_5 = \chi_{64}$	1	1	.	.
$439425_6 = \chi_{65}$	1	.	1	.
$442680_1 = \chi_{66}$	1	.	.	.
$442680_2 = \chi_{67}$	1	.	.	.
$442680_3 = \chi_{68}$	.	.	1	.
$442680_4 = \chi_{69}$	.	1	.	.
$498015_1 = \chi_{70}$	1	.	1	.
$498015_2 = \chi_{71}$	1	1	.	.
$505920_1 = \chi_{72}$	1	.	.	1
$539648_1 = \chi_{73}$	1	1	1	.
$590240_1 = \chi_{74}$	2	.	.	.
$634880_1 = \chi_{75}$	1	.	.	1
$664020_1 = \chi_{76}$	2	.	.	1
$664020_2 = \chi_{77}$	1	1	1	.
$708288_1 = \chi_{78}$	2	.	.	1
$711450_1 = \chi_{79}$	1	1	.	.
$711450_2 = \chi_{80}$	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}	φ_{13}	φ_{14}
$711450_3 = \chi_{81}$	188	155	73	68	101	68	51	54	64	16	22	27	45	15
$711450_4 = \chi_{82}$	188	155	68	73	101	68	54	51	64	16	27	22	45	10
$722925_1 = \chi_{83}$	143	117	51	56	79	51	41	38	45	13	20	15	39	8
$722925_2 = \chi_{84}$	143	117	56	51	79	51	38	41	45	13	15	20	39	12
$722925_3 = \chi_{85}$	193	161	72	72	103	71	51	50	68	17	23	21	49	10
$722925_4 = \chi_{86}$	193	161	72	72	103	71	50	51	68	17	21	23	49	13
$722925_5 = \chi_{87}$	183	149	75	63	97	67	50	53	64	17	20	27	43	14
$722925_6 = \chi_{88}$	183	149	63	75	97	67	53	50	64	17	27	20	43	9
$761856_1 = \chi_{89}$	126	94	50	50	66	44	34	34	42	16	13	13	32	9
$830025_1 = \chi_{90}$	199	164	76	76	107	74	54	54	68	18	25	25	46	13
$885360_1 = \chi_{91}$	204	166	78	78	110	73	59	59	69	16	28	28	47	15
$1011840_1 = \chi_{92}$	198	156	74	74	106	70	52	52	68	22	21	21	51	12
$1180480_1 = \chi_{94}$	286	228	113	113	152	101	88	88	98	24	41	41	64	22
$1195236_1 = \chi_{95}$	308	260	119	119	164	118	84	84	107	27	38	38	76	19
$1422900_1 = \chi_{96}$	310	255	116	116	166	114	83	83	106	29	36	36	81	19
$1494045_1 = \chi_{97}$	343	279	126	126	185	121	93	93	116	31	41	41	89	22

(Block 1:)	φ_{15}	φ_{16}	φ_{17}	φ_{18}	φ_{19}	φ_{20}	φ_{21}	φ_{22}	φ_{23}	φ_{24}	φ_{25}	φ_{26}	φ_{27}
$711450_3 = \chi_{81}$	10	8	15	5	7	9	5	5	1	2	2	3	3
$711450_4 = \chi_{82}$	15	8	15	7	5	9	5	5	1	2	3	2	3
$722925_1 = \chi_{83}$	12	8	11	4	3	11	3	3	2	1	2	1	1
$722925_2 = \chi_{84}$	8	8	11	3	4	11	3	3	2	1	1	2	1
$722925_3 = \chi_{85}$	13	8	17	6	4	11	5	4	1	1	2	2	3
$722925_4 = \chi_{86}$	10	8	17	4	6	11	4	5	1	1	2	2	3
$722925_5 = \chi_{87}$	9	8	15	5	7	8	6	4	1	3	1	3	4
$722925_6 = \chi_{88}$	14	8	15	7	5	8	4	6	1	3	3	1	4
$761856_1 = \chi_{89}$	9	8	12	2	2	10	4	4	2	.	.	.	1
$830025_1 = \chi_{90}$	13	9	17	6	6	10	6	6	1	1	2	2	3
$885360_1 = \chi_{91}$	15	8	17	7	7	9	5	5	1	2	3	3	3
$1011840_1 = \chi_{92}$	12	11	17	5	5	14	5	5	3	1	1	1	2
$1180480_1 = \chi_{94}$	22	11	25	10	10	11	8	8	1	5	4	4	5
$1195236_1 = \chi_{95}$	19	13	28	8	8	16	8	8	1	3	3	3	6
$1422900_1 = \chi_{96}$	19	15	26	8	8	20	7	7	3	3	3	3	5
$1494045_1 = \chi_{97}$	22	16	27	10	10	21	7	7	4	3	4	4	4

(Block 1:)	φ_{28}	φ_{29}	φ_{30}	φ_{31}
$711450_3 = \chi_{81}$	1	1	.	.
$711450_4 = \chi_{82}$	1	.	1	.
$722925_1 = \chi_{83}$	1	.	1	1
$722925_2 = \chi_{84}$	1	1	.	1
$722925_3 = \chi_{85}$	2	.	1	.
$722925_4 = \chi_{86}$	2	1	.	.
$722925_5 = \chi_{87}$	1	1	.	.
$722925_6 = \chi_{88}$	1	.	1	.
$761856_1 = \chi_{89}$	1	1	1	1
$830025_1 = \chi_{90}$	1	1	1	.
$885360_1 = \chi_{91}$	1	1	1	.
$1011840_1 = \chi_{92}$	2	1	1	1
$1180480_1 = \chi_{94}$	1	1	1	.
$1195236_1 = \chi_{95}$	2	1	1	.
$1422900_1 = \chi_{96}$	3	1	1	1
$1494045_1 = \chi_{97}$	3	1	1	1

$$\begin{aligned}
\varphi_1 &= 1_1 \\
\varphi_2 &= 10_1 \\
\varphi_3 &= 16_1 \\
\varphi_4 &= 16_2 \\
\varphi_5 &= 44_1 \\
\varphi_6 &= 100_1 \\
\varphi_7 &= 144_1 \\
\varphi_8 &= 144_2 \\
\varphi_9 &= 164_1 \\
\varphi_{10} &= 320_1 \\
\varphi_{11} &= 416_1 \\
\varphi_{12} &= 416_2 \\
\varphi_{13} &= 670_1 \\
\varphi_{14} &= 1184_1 \\
\varphi_{15} &= 1184_2 \\
\varphi_{16} &= 1408_1 \\
\varphi_{17} &= 2708_1 \\
\varphi_{18} &= 2976_1 \\
\varphi_{19} &= 2976_2 \\
\varphi_{20} &= 3124_1 \\
\varphi_{21} &= 7328_1 \\
\varphi_{22} &= 7328_2 \\
\varphi_{23} &= 8832_1 \\
\varphi_{24} &= 17920_1 \\
\varphi_{25} &= 20832_1 \\
\varphi_{26} &= 20832_2 \\
\varphi_{27} &= 22408_1 \\
\varphi_{28} &= 52710_1 \\
\varphi_{29} &= 127584_1 \\
\varphi_{30} &= 127584_2 \\
\varphi_{31} &= 183040_1
\end{aligned}$$