CERN–TH.5440S/89

New Modular Invariants for N=2 Tensor Products and Four-Dimensional Strings
Tables Supplement (short version)

A. N. Schellekens*

CERN, 1211 Geneva 23, Switzerland

and

S. Yankielowicz†

School of Physics and Astronomy, Tel-Aviv University, Tel-Aviv 69978, Israel.

Tables of (2,2) spectra for all combinations of $N = 2$ minimal models with total central charge equal to 9.

⋆ Bitnet: SCHELLEK@CERNVM

† Work supported in part by the US-Israel Binational Science Foundation, and the Israel Academy of Science. Bitnet: H75@TAUNIVM

CERN–TH.5440S/89
July 1989/Februari 1990

This is a supplement to [1] (hereafter referred to as (I)) and contains tables of (2,2) models that could not all be included in that paper. We refer to (I) for further explanations and references. The results presented here are are not intended for publication, and are circulated only to make our data available to those people who are presently interested in similar computations. As far as we know, this is the most complete survey of the set of modular invariants of $N = 2$ minimal model tensor products.

In (I) we have constructed both (2,2) and (2,1) spectra, as well as a very restricted set of (2,0) spectra. More extensive tables that include also all (2,1) spectra we have found are available on request. This shortened version includes only the (2,2) spectra, obtained by applying any valid combination of simple currents to the A and E invariants of all possible tensor products of $N = 2$ minimal models [2] (this automatically includes the D-invariants). These tables are not quite complete, since the currents were generated at random. However, we estimate that the number of spectra that is still missing is only a few percent of the total. Most of these results appeared already in the first version of july 1989, but several tables have been extended more recently.

Explanation of the tables

In table A we present some general information about each combination of $N = 2$ minimal models. Column 1 defines a label (identical to that of [3]) for the combination in column 2. Column 3 lists the largest common factor, Δ, in the difference of the number of generations and anti-generations. The remaining columns give the number N_{ij} of different spectra with i right-moving and j left-moving space-time supersymmetries. In heterotic strings the latter manifest themselves as extensions of the basic gauge-group $SO(10)$ to E_6, E_7 and E_8 for $j = 1, 2$ and 4 respectively.

The exceptional $SU(2)$ invariants at levels 10 and 28 have been removed

from these tables. It is now clear [4] that even for (2,1) and (1,1) theories they yield nothing new, because the "Landau-Ginzburg" relations $(28)_E = (3) \times (1)$ and $(10)_E = (2) \times (1)$ are exact in conformal field theory. The E-invariant for $k = 16$ has been combined with the corresponding A-invariant. This exceptional invariant be indicated as 16^* in the following. The quantity Δ is in most cases not changed when (16) is replaced by (16^*). The exceptions are $(1, 1, 2, 16^*, 34)$, $(1, 2, 2, 7, 16^*)$ and $(2, 7, 10, 16^*)$, which have a "coarser" quantization than the corresponding A-invariants ($\Delta = 36, 0$ and 12 respectively) and $(1, 16^*, 16^*, 16^*)$, which has $\Delta = 3$, wheras upon replacement of one or more of the three E-invariant by an A-invariant one gets $\Delta = 6$.

Table B presents all 1145 different (2,2) spectra we have found with exacly one left- and right-moving space-time supersymmetry. In this table N_G is the number of generations, N_A the number of anti-generations (with a chirality choice so that $N_G \geq N_A$), N_S the number of scalars that are E_6 singlets, and N_V the number of E_6-singlet vector bosons. Column 2 gives the absolute value of the Euler-number ($2(N_G - N_A)$), and the last column lists the $N = 2$ combinations for which a given spectrum was found.

In Table C we present the remaining (2,2) models, which have extra left- or right-moving supersymmetries (and are therefore not chiral). The number of supersymmetries is listed in columns 2 and 3. When viewed as type-II strings, these models yield $N = N_L + N_R$ extended supergravity. As explained in (I) we combine all massless states into multiplets of the largest extended supergravity that is available on the right, and of the largest exceptional algebra available on the left. Thus for example if $N_R = 2$ and $N_L = 4$ the entries in the table are multiplicities of $N = 2$ multiplets in E_8 representations.

The main purpose of these tables is to simplify comparisons between different constructions. Knowledge of the number of gauge-singlets is essential for such comparisons, since many spectra become identical when this information is ignored. As one can see from table B there are very few overlaps between different tensor products. Most of the overlaps that do occur can be attributed to the relation $(1) \times (1) = 4_D$, which holds exactly. We did not use this relation to eliminate either the left-hand side or the right-hand side, since simple currents of $(1) \times (1)$ yield extra modular invariants not produced by those of (4), whereas the A-invariants of (4) do not appear in the $(1) \times (1)$ system. Thus one list neither includes, nor is included by the other. The other overlaps between (2,2) modular invariants of different tensor products occur nearly always for tensor products with two or more factors in common. If one examines the other modular invariants for two such tensor products one finds only very few other overlaps. Usually there is just one common (2,2) spectrum, and in addition a few common (2,1) spectra. An interesting open question is whether it is just the massless spectrum that coincides, or the entire partition function.

The "naive" generation number $N_G - N_A$ ("naive" because it need not be related to the number of generations in a more realistic theory with broken gauge group) is quantized in units of Δ. The smallest non-zero value of Δ is 3, a value that occurs only for the $(1, 16^*, 16^*, 16^*)$ tensor product. This tensor product has been explored more thorougly. The minimal value $N_G - N_A = 3$ does not occur for (2,2) models (and hence there is no 3 generation spectrum in these tables), but occurs once for (2,1) models and at least 40 times for (2,0) models [1].

The completeness of this list

As mentioned above, a few spectra are undoubtedly missing from these tables for statistical reasons. The set of *a priori* different simple currents of a given tensor product is very large. This number can be reduced significantly be specializing to (2,2) models, but we have not done that (although only our (2,2) results are presented here). Obviously the number of possibilities grows exponentially if one increases the number of successive simple current twists. Although it is certainly possible to construct all inequivalent single simple currents systematically, we know of no practical way of doing that for multiple currents, and hence we tried to explore the space of solutions by means of randomly generated currents.

In practice this works in a very satisfactory way, presumably because many *a priori* inequivalent currents yield the same spectrum, and no new spectra appear beyond a certain number of simple current twists. For this reason the random search procedure saturates fairly rapidly, which gives us confidence in the completeness of these tables. It turns out that (2,2) spectra with large Euler numbers are the ones that occur most frequently, and hence are least likely to be absent. The rarest spectra are those in table C, and especially those with $(N_R, N_L) = (4,1), (1,4), (2,1), (1,2), (4,2)$, and $(2,4)$ as well as torus compactifications.

Finally we should point out that other "exceptional" invariants exist than those considered here [4], and that most likely the full set of modular invariant partition functions of $N = 2$ minimal model tensor products is not yet known.

Comparison with other work

Several papers have been published that cover various special kinds of modular invariants. Lists of spectra have appeared in [3], [5] (diagonal invariants), [6], [7] (orbifold twists), [8] (D-invariants) and [9] (D-invariants plus at most one orbifold twist). All these invariants can be obtained by means of simple currents, and all are included in table B. Most of the papers mentioned above only give the number of generations and anti-generations. Only in [3] the number of E_6-singlet vector bosons and scalars is given for all models, as in table B. In [9] only the number of scalar singlets is given, and only for a few of the spectra.

In principle, the most general simple current that one can write down has the form

$$((x),(0,q_1,s_1),\ldots,(0,q_m,s_m))\ ,$$

where m is the number of factors. Here (x) denotes one of the four conjugacy classes $(0),(v),(s)$ or (c) of the NSR-model, or equivalently $SO(10)$. The remainder of the expression indicates the form of a simple current within each $N=2$ factor, where we have used field identification to restricted the first label, l, to 0.

Most work focusses on $(2,2)$ models because of their relation with compactification on Calabi-Yau manifolds. There is no physical motivation for this restriction, nor is there any obstacle to considering other string ground states, but in order to compare with other work we restrict ourselves here to (2,2) models as well. If one is only interested in (2,2) models one works in an extended algebra, that is enlarged by the space-time supersymmetry generator $((s),(0,1,1),\ldots,(0,1,1))$ and the products of all pairs of supercurrents from different factors. The latter are all generated by

$$((v),(0,0,0),\ldots,(0,0,2),\ldots,(0,0,0)\ ,$$

with $(0,0,2)$ appearing exactly once.

This enlarged algebra has several consequences. First of all the currents should be either purely of Neveu-Schwarz or purely of Ramond type, since anything else would break world-sheet supersymmetry.* Because of presence

* The matrix multiplication method explained in [1] allows the use of non-NSR currents, provided that projection matrices are included in both the left-moving and the right-moving sector. It is however very unlikely that one can get anything this way that cannot be obtained by pure NS or R currents.

of the space-time supersymmetry generator, it is sufficient to consider only simple currents of NS-type. Using the world-sheet supersymmetry currents one can bring all of these into one of the following two forms

$$\text{I:}\quad ((0),(0,q_1,0),\ldots,(0,q_m,0))$$
$$\text{II:}\quad ((v),(0,q_1,0),\ldots,(0,q_m,0)\ .$$

The D-invariant of the i^{th} factor is generated by the current

$$((v),(0,0,0),\ldots,(0,k_i+2,0),\ldots,(0,0,0))\ .$$

The "orbifold twists" $(p_1,\ldots,p_m)$ (in the notation of [6], [7] and [9]) are generated by currents $(0),(0,2p_1,0),\ldots,(0,2p_m,0)$. Note that this does not yet include the most general current of the form II. It is possible that it can be obtained by successive twists, but this remains to be demonstrated.

There is one other restriction that is imposed in most of the literature, namely that the simple currents should be local with respect to the space-time supersymmetry generator, so that the latter is not projected out. If one strictly works within the extended algebra described above this condition is the analog of the requirement that the currents be purely NS or R. However, it is a sufficient, but not a necessary condition for getting a (2,2) model. We have found examples for which the left- and right-moving space-time supersymmetry generators are ***different*** combinations of Ramond ground states. These examples appear automatically in the approach described in [1], since the presence of a left-moving space-time supersymmetry was not required. An example is spectrum # 654 in table B, which is generated by the current $((v),(0,2,0)^3,(0,0,0)^3)$. In the majority of cases a spectrum that is in principle left-right asymmetric in the supersymmetry generators can presumably also be obtained symmetrically. Indeed, most spectra we obtained by means of a single twist appear also in [9]. The example discussed above, as well as several others, does not appear there, however.

There are several discrepancies among the results published so far.

– The number of (anti)-generations for the diagonal invariants given in [5] differs from that in all other papers. The origin of this problem is apparently now understood, and a more recent paper by the same authors [8] finds results agreeing with all other calculations.

  We disagree with a table in [7] for the tensor product $(1, 16^*, 16^*, 16^*)$. These authors find spectra with $N_G - N_A$ not divisible by 3. If we use the orbifold twist listed by the authors we get a different answer, although we get the same answer for the other tables. Our results are confirmed in [9].

– We disagree with both [3] and [9] on the number of scalars and gauge bosons in $K_3 \times T_2$ compactifications. Our results are however in agreement with the spectrum one obtains by torus compactification from 6 to 4 dimensions. Furthermore they respect the relations $(10^*) = (1) \times (2)$ and $(28^*) = (1) \times (3)$. These relations can be shown to hold exactly in conformal field theory [4], but are not respected by the results of [3] and [9]. Most likely the origin of the problem is that some scalars (namely those that have $U(1)$ generators as their left-moving vertex operator) were forgotten in these two papers. Note that our notation for $K_3 \times T_2$ (as well as T_6) compactifications differs from that of [3] and [9], since we write the spectrum in terms of $N = 2$ multiplets and E_7 representations.

Apart from the latter point and a few misprints in the tables belonging to [9] (we thank J. Fuchs and A. Klemm for their help in clarifying this) the agreement between our results and those of [9] is perfect.

Unfortunately we had to suppress information regarding the precise construction of a given spectrum, even in the more extensive set of tables of (2,1) models. For those spectra that appear also in the list of Fuchs et. al. [9] one can find this information in tables made available by these authors.

REFERENCES

[1]. A.N Schellekens and S. Yankielowicz, Nucl. Phys. B330 (1990) 103.

[2]. D. Gepner, Nucl. Phys. B296 (1988) 757; Phys. Lett. B199 (1987) 380.

[3]. A. Lütken and G. Ross, Phys. Lett. B213 (1987) 152.

[4]. A.N. Schellekens and S. Yankielowicz, *Exceptional Modular Invariants of N = 2 Tensor Products*, CERN-TH.5665/90.

[5]. M. Lynker and R. Schimmrigk, Phys. Lett. B215 (1988) 681.

[6]. P. Zoglin, Phys. Lett. B218 (1989) 444.

[7]. B. Greene and M. Plesser, Harvard preprint HUTP-89/A043.

[8]. M. Lynker and R. Schimmrigk, *A-D-E Quantum Calabi-Yau manifolds*, University of Texas preprint UTTG-42-89.

[9]. J. Fuchs, A. Klemm, C. Scheich and M. Schmidt, *Systematics of (2,2) Orbifoldizations of Gepner Models obtained by one Twist*, Heidelberg preprints HD-THEP-89-25/26 (1989).

A1

nr	tensor product	Δ	N_{11}	N_{10}	N_{12}	N_{14}	N_{20}	N_{21}	N_{22}	N_{24}	N_{40}	N_{41}	N_{42}	N_{44}
1	(1,1,1,1,1,1,1,1,1)	12	14	30	3	1	14	3	4	1	3	1	1	2
2	(1,1,1,1,1,1,1,4)	12	11	25	2	0	13	2	4	0	2	0	1	1
3	(1,1,1,1,1,1,2,2)	0	0	0	0	0	3	0	1	0	3	0	0	1
4	(1,1,1,1,1,2,10)	12	2	10	0	0	6	0	2	0	0	0	0	0
5	(1,1,1,1,1,4,4)	12	27	96	3	0	27	4	8	0	1	0	1	1
6	(1,1,1,1,2,2,4)	24	1	5	0	0	6	0	2	0	3	0	0	1
7	(1,1,1,2,2,2,2)	0	0	0	0	0	5	0	3	0	3	0	0	2
8	(1,1,1,1,5,40)	24	1	2	0	0	1	0	1	0	0	0	0	0
9	(1,1,1,1,6,22)	12	2	7	0	0	3	0	1	0	0	0	0	0
10	(1,1,1,1,7,16)	12	14	51	2	0	4	2	2	0	0	0	0	0
11	(1,1,1,1,8,13)	24	1	2	0	0	1	0	1	0	0	0	0	0
12	(1,1,1,1,10,10)	12	12	59	1	0	9	1	2	0	0	0	0	0
13	(1,1,1,2,3,18)	0	0	0	0	0	1	0	1	0	0	0	0	0
14	(1,1,1,2,4,10)	12	7	53	1	0	10	1	3	0	0	0	0	0
15	(1,1,1,2,6,6)	0	0	0	0	0	2	0	1	0	0	0	0	0
16	(1,1,1,3,3,8)	0	0	0	0	0	1	0	1	0	0	0	0	0
17	(1,1,1,4,4,4)	12	51	206	3	0	22	6	8	0	0	0	1	1
18	(1,1,2,2,2,10)	12	4	11	0	0	3	0	2	0	0	0	0	0
19	(1,1,2,2,4,4)	24	6	17	0	0	10	0	6	0	1	0	0	1
20	(1,2,2,2,2,4)	12	8	18	0	0	10	0	6	0	0	0	0	2
21	(2,2,2,2,2,2)	6	39	164	5	1	45	5	9	1	7	1	1	3
22	(1,1,2,11,154)	0	1	1	0	0	0	0	0	0	0	0	0	0
23	(1,1,2,12,82)	36	2	3	0	0	0	0	0	0	0	0	0	0
24	(1,1,2,13,58)	12	2	8	0	0	0	0	0	0	0	0	0	0
25	(1,1,2,14,46)	12	3	14	0	0	0	0	0	0	0	0	0	0
26	(1,1,2,16,34)	12	7	34	0	0	0	0	0	0	0	0	0	0
27	(1,1,2,18,28)	24	2	4	0	0	0	0	0	0	0	0	0	0
28	(1,1,2,19,26)	0	1	1	0	0	0	0	0	0	0	0	0	0
29	(1,1,2,22,22)	12	8	40	0	0	0	0	0	0	0	0	0	0
30	(1,1,3,6,118)	0	2	2	0	0	0	0	0	0	0	0	0	0
31	(1,1,3,7,43)	48	2	3	0	0	0	0	0	0	0	0	0	0
32	(1,1,3,8,28)	48	2	3	0	0	0	0	0	0	0	0	0	0
33	(1,1,3,10,18)	0	2	1	0	0	0	0	0	0	0	0	0	0
34	(1,1,3,13,13)	48	3	5	0	0	0	0	0	0	0	0	0	0
35	(1,1,4,5,40)	24	3	5	0	0	0	0	1	0	0	0	0	0
36	(1,1,4,6,22)	12	8	38	0	0	1	0	1	0	0	0	0	0
37	(1,1,4,7,16)	12	28	127	2	0	3	2	2	0	0	0	0	0
38	(1,1,4,8,13)	12	3	5	0	0	0	0	1	0	0	0	0	0
39	(1,1,4,10,10)	12	44	250	1	0	4	1	1	0	0	0	0	0
40	(1,1,5,5,19)	48	1	1	0	0	0	0	0	0	0	0	0	0
41	(1,1,6,6,10)	24	6	9	0	0	0	0	0	0	0	0	0	0
42	(1,1,7,7,7)	12	9	30	0	0	0	0	0	0	0	0	0	0

A2

nr.	tensor product	Δ	N_{11}	N_{10}	N_{12}	N_{14}	N_{20}	N_{21}	N_{22}	N_{24}	N_{40}	N_{41}	N_{42}	N_{44}
43	(1,2,2,5,40)	0	1	1	0	0	0	0	1	0	0	0	0	0
44	(1,2,2,6,22)	12	12	55	1	0	3	1	2	0	0	0	0	0
45	(1,2,2,7,16)	24	1	5	0	0	6	0	2	0	0	0	0	0
46	(1,2,2,8,13)	0	1	1	0	0	0	0	1	0	0	0	0	0
47	(1,2,2,10,10)	12	18	74	1	0	7	1	2	0	0	0	0	0
48	(1,2,3,3,58)	24	1	3	0	0	0	0	0	0	0	0	0	0
49	(1,2,3,4,18)	24	1	2	0	0	1	0	1	0	0	0	0	0
50	(1,2,4,4,10)	12	35	160	1	0	3	1	3	0	0	0	0	0
51	(1,2,4,6,6)	24	10	17	0	0	1	0	1	0	0	0	0	0
52	(1,3,3,3,13)	24	3	4	0	0	0	0	0	0	0	0	0	0
53	(1,3,3,4,8)	24	1	1	0	0	1	0	1	0	0	0	0	0
54	(1,4,4,4,4)	6	89	344	2	0	8	2	5	0	0	0	0	0
55	(2,2,2,3,18)	12	4	11	0	0	2	0	2	0	0	0	0	0
56	(2,2,2,4,10)	6	26	98	1	0	7	1	5	0	0	0	0	0
57	(2,2,2,6,6)	12	56	338	3	0	15	3	3	0	0	0	0	0
58	(2,2,3,3,8)	24	1	3	0	0	3	0	1	0	0	0	0	0
59	(2,2,4,4,4)	6	15	31	0	0	8	0	5	0	0	0	0	0
60	(3,3,3,3,3)	4	6	16	0	0	0	0	0	0	0	0	0	0
61	(1,5,41,1804)	0	1	0	0	0	0	0	0	0	0	0	0	0
62	(1,5,42,922)	120	1	1	0	0	0	0	0	0	0	0	0	0
63	(1,5,43,628)	24	1	1	0	0	0	0	0	0	0	0	0	0
64	(1,5,44,481)	0	1	0	0	0	0	0	0	0	0	0	0	0
65	(1,5,46,334)	24	2	7	0	0	0	0	0	0	0	0	0	0
66	(1,5,47,292)	96	1	4	0	0	0	0	0	0	0	0	0	0
67	(1,5,49,236)	0	1	0	0	0	0	0	0	0	0	0	0	0
68	(1,5,52,187)	24	1	3	0	0	0	0	0	0	0	0	0	0
69	(1,5,54,166)	24	2	13	0	0	0	0	0	0	0	0	0	0
70	(1,5,58,138)	72	1	2	0	0	0	0	0	0	0	0	0	0
71	(1,5,61,124)	24	2	11	0	0	0	0	0	0	0	0	0	0
72	(1,5,68,103)	48	1	4	0	0	0	0	0	0	0	0	0	0
73	(1,5,76,89)	0	1	0	0	0	0	0	0	0	0	0	0	0
74	(1,5,82,82)	24	4	18	0	0	0	0	0	0	0	0	0	0
75	(1,6,23,598)	48	1	4	0	0	0	0	0	0	0	0	0	0
76	(1,6,24,310)	36	4	7	0	0	0	0	0	0	0	0	0	0
77	(1,6,25,214)	24	2	10	0	0	0	0	0	0	0	0	0	0
78	(1,6,26,166)	12	5	21	0	0	0	0	0	0	0	0	0	0
79	(1,6,28,118)	12	6	33	0	0	0	0	0	0	0	0	0	0
80	(1,6,30,94)	12	7	42	0	0	0	0	0	0	0	0	0	0
81	(1,6,31,86)	24	1	2	0	0	0	0	0	0	0	0	0	0
82	(1,6,34,70)	12	9	76	0	0	0	0	0	0	0	0	0	0
83	(1,6,38,58)	24	5	23	0	0	0	0	0	0	0	0	0	0
84	(1,6,40,54)	24	4	8	0	0	0	0	0	0	0	0	0	0

nr.	tensor product	Δ	N_{11}	N_{10}	N_{12}	N_{14}	N_{20}	N_{21}	N_{22}	N_{24}	N_{40}	N_{41}	N_{42}	N_{44}
85	(1, 6, 46, 46)	12	14	95	0	0	0	0	0	0	0	0	0	0
86	(1, 7, 17, 340)	72	1	2	0	0	0	0	0	0	0	0	0	0
87	(1, 7, 18, 178)	12	2	6	0	0	0	0	0	0	0	0	0	0
88	(1, 7, 19, 124)	12	3	8	0	0	0	0	0	0	0	0	0	0
89	(1, 7, 20, 97)	48	1	2	0	0	0	0	0	0	0	0	0	0
90	(1, 7, 22, 70)	12	8	60	0	0	0	0	0	0	0	0	0	0
91	(1, 7, 25, 52)	12	6	46	0	0	0	0	0	0	0	0	0	0
92	(1, 7, 28, 43)	12	4	16	0	0	0	0	0	0	0	0	0	0
93	(1, 7, 34, 34)	12	10	79	0	0	0	0	0	0	0	0	0	0
94	(1, 8, 14, 238)	12	4	9	0	0	0	0	0	0	0	0	0	0
95	(1, 8, 16, 88)	6	8	33	0	0	0	0	0	0	0	0	0	0
96	(1, 8, 18, 58)	24	6	32	0	0	0	0	0	0	0	0	0	0
97	(1, 8, 22, 38)	12	4	9	0	0	0	0	0	0	0	0	0	0
98	(1, 8, 28, 28)	6	10	42	0	0	0	0	0	0	0	0	0	0
99	(1, 9, 12, 229)	0	1	0	0	0	0	0	0	0	0	0	0	0
100	(1, 9, 13, 108)	0	1	0	0	0	0	0	0	0	0	0	0	0
101	(1, 9, 20, 31)	120	1	3	0	0	0	0	0	0	0	0	0	0
102	(1, 10, 11, 154)	24	2	3	0	0	0	0	0	0	0	0	0	0
103	(1, 10, 12, 82)	12	6	21	0	0	0	0	0	0	0	0	0	0
104	(1, 10, 13, 58)	12	8	43	0	0	0	0	0	0	0	0	0	0
105	(1, 10, 14, 46)	12	10	62	0	0	0	0	0	0	0	0	0	0
106	(1, 10, 16, 34)	12	30	269	0	0	0	0	0	0	0	0	0	0
107	(1, 10, 18, 28)	12	6	21	0	0	0	0	0	0	0	0	0	0
108	(1, 10, 19, 26)	12	2	3	0	0	0	0	0	0	0	0	0	0
109	(1, 10, 22, 22)	12	30	280	0	0	0	0	0	0	0	0	0	0
110	(1, 11, 11, 76)	48	1	2	0	0	0	0	0	0	0	0	0	0
111	(1, 12, 12, 40)	6	5	15	0	0	0	0	0	0	0	0	0	0
112	(1, 12, 13, 33)	0	1	0	0	0	0	0	0	0	0	0	0	0
113	(1, 12, 19, 19)	48	2	3	0	0	0	0	0	0	0	0	0	0
114	(1, 13, 13, 28)	12	6	28	0	0	0	0	0	0	0	0	0	0
115	(1, 13, 18, 18)	24	2	4	0	0	0	0	0	0	0	0	0	0
116	(1, 14, 14, 22)	24	8	29	0	0	0	0	0	0	0	0	0	0
117	(1, 16, 16, 16)	3	28	130	0	0	0	0	0	0	0	0	0	0
118	(2, 3, 19, 418)	0	1	1	0	0	0	0	0	0	0	0	0	0
119	(2, 3, 20, 218)	60	2	3	0	0	0	0	0	0	0	0	0	0
120	(2, 3, 22, 118)	12	3	16	0	0	0	0	0	0	0	0	0	0
121	(2, 3, 23, 98)	72	1	4	0	0	0	0	0	0	0	0	0	0
122	(2, 3, 26, 68)	48	2	3	0	0	0	0	0	0	0	0	0	0
123	(2, 3, 28, 58)	12	3	24	0	0	0	0	0	0	0	0	0	0
124	(2, 3, 34, 43)	0	1	3	0	0	0	0	0	0	0	0	0	0
125	(2, 3, 38, 38)	12	5	31	0	0	0	0	0	0	0	0	0	0
126	(2, 4, 11, 154)	36	2	4	0	0	0	0	0	0	0	0	0	0

nr.	tensor product	Δ	N_{11}	N_{10}	N_{12}	N_{14}	N_{20}	N_{21}	N_{22}	N_{24}	N_{40}	N_{41}	N_{42}	N_{44}
127	(2, 4, 12, 82)	6	8	26	0	0	0	0	0	0	0	0	0	0
128	(2, 4, 13, 58)	12	3	14	0	0	0	0	0	0	0	0	0	0
129	(2, 4, 14, 46)	12	14	76	0	0	0	0	0	0	0	0	0	0
130	(2, 4, 16, 34)	6	18	142	0	0	0	0	0	0	0	0	0	0
131	(2, 4, 18, 28)	6	9	33	0	0	0	0	0	0	0	0	0	0
132	(2, 4, 19, 26)	24	2	3	0	0	0	0	0	0	0	0	0	0
133	(2, 4, 22, 22)	12	27	193	0	0	0	0	0	0	0	0	0	0
134	(2, 5, 8, 138)	36	2	4	0	0	0	0	0	0	0	0	0	0
135	(2, 5, 10, 40)	36	2	4	0	0	0	0	0	0	0	0	0	0
136	(2, 5, 12, 26)	36	3	13	0	0	0	0	0	0	0	0	0	0
137	(2, 6, 7, 70)	24	3	14	0	0	0	0	0	0	0	0	0	0
138	(2, 6, 8, 38)	12	14	68	0	0	0	0	0	0	0	0	0	0
139	(2, 6, 10, 22)	12	35	304	0	0	0	0	0	0	0	0	0	0
140	(2, 6, 14, 14)	12	46	409	0	0	0	0	0	0	0	0	0	0
141	(2, 7, 7, 34)	36	2	8	0	0	0	0	0	0	0	0	0	0
142	(2, 7, 10, 16)	12	4	21	0	0	0	0	0	0	0	0	0	0
143	(2, 8, 8, 18)	6	11	51	0	0	0	0	0	0	0	0	0	0
144	(2, 8, 10, 13)	24	2	4	0	0	0	0	0	0	0	0	0	0
145	(2, 10, 10, 10)	6	25	171	0	0	0	0	0	0	0	0	0	0
146	(3, 3, 9, 108)	40	1	1	0	0	0	0	0	0	0	0	0	0
147	(3, 3, 10, 58)	12	2	6	0	0	0	0	0	0	0	0	0	0
148	(3, 3, 12, 33)	32	1	1	0	0	0	0	0	0	0	0	0	0
149	(3, 3, 13, 28)	12	4	19	0	0	0	0	0	0	0	0	0	0
150	(3, 3, 18, 18)	4	8	36	0	0	0	0	0	0	0	0	0	0
151	(3, 4, 6, 118)	12	4	9	0	0	0	0	0	0	0	0	0	0
152	(3, 4, 7, 43)	48	1	2	0	0	0	0	0	0	0	0	0	0
153	(3, 4, 8, 28)	12	6	18	0	0	0	0	0	0	0	0	0	0
154	(3, 4, 10, 18)	12	4	5	0	0	0	0	0	0	0	0	0	0
155	(3, 4, 13, 13)	48	2	2	0	0	0	0	0	0	0	0	0	0
156	(3, 5, 5, 68)	48	1	1	0	0	0	0	0	0	0	0	0	0
157	(3, 6, 6, 18)	8	5	9	0	0	0	0	0	0	0	0	0	0
158	(3, 8, 8, 8)	12	12	47	0	0	0	0	0	0	0	0	0	0
159	(4, 4, 5, 40)	6	5	6	0	0	0	0	0	0	0	0	0	0
160	(4, 4, 6, 22)	12	22	93	0	0	0	0	0	0	0	0	0	0
161	(4, 4, 7, 16)	12	26	92	0	0	0	0	0	0	0	0	0	0
162	(4, 4, 8, 13)	6	5	6	0	0	0	0	0	0	0	0	0	0
163	(4, 4, 10, 10)	6	63	385	0	0	0	0	0	0	0	0	0	0
164	(4, 5, 5, 19)	48	1	1	0	0	0	0	0	0	0	0	0	0
165	(4, 6, 6, 10)	12	24	88	0	0	0	0	0	0	0	0	0	0
166	(4, 7, 7, 7)	12	4	10	0	0	0	0	0	0	0	0	0	0
167	(5, 5, 5, 12)	24	4	8	0	0	0	0	0	0	0	0	0	0
168	(6, 6, 6, 6)	4	36	174	0	0	0	0	0	0	0	0	0	0

B1

nr.	$\|X\|$	N_G	N_A	N_S	N_V	model
1	960	491	11	1779	3	74
2	720	377	17	1401	3	71
3	624	335	23	1285	3	69
4	624	321	9	1165	3	85
5	540	272	2	935	3	117
6	528	271	7	973	3	93
7	492	251	5	891	3	98
8	480	287	47	1195	3	65, 66
9	480	263	23	1023	3	74
10	480	243	3	843	3	109
11	456	242	14	907	3	82
12	432	229	13	917	3	85
13	432	227	11	873	3	125
14	408	222	18	863	3	80
15	408	214	10	787	3	91
16	408	208	4	733	3	114
17	384	221	29	907	3	72
18	360	204	24	815	3	79
19	360	185	5	655	3	106
20	348	180	6	677	3	111
21	336	263	95	1285	3	63
22	336	183	15	705	3	90
23	336	181	13	693	3	85
24	336	178	10	681	3	96
25	324	165	3	577	3	145
26	312	190	34	807	3	78
27	312	176	20	743	3	82
28	312	173	17	703	3	123
29	312	167	11	663	3	98
30	312	164	8	617	3	133
31	312	164	8	607	3	105
32	312	161	5	581	3	117
33	296	149	1	503	3	168
34	288	179	35	791	3	74
35	288	163	19	649	3	85
36	288	157	13	601	3	93
37	288	155	11	593	3	104
38	288	153	9	591	3	109
39	288	151	7	569	3	113
40	288	151	7	555	3	109
41	288	148	4	527	3	140

B2

nr.	$\|X\|$	N_G	N_A	N_S	N_V	model
42	288	145	1	495	3	158
43	276	155	17	619	3	95
44	272	143	7	535	3	150
45	264	180	48	823	3	77
46	264	160	28	687	3	88
47	264	158	26	699	3	80
48	264	147	15	593	3	103
49	264	140	8	529	3	98
50	252	128	2	443	3	163
51	240	257	137	1401	3	62
52	240	173	53	817	3	68, 69
53	240	143	23	631	3	102
54	240	143	23	609	3	110
55	240	143	23	605	3	83
56	240	135	15	685	3	93
57	240	131	11	536	4	29, 133
58	240	131	11	533	3	125
59	240	129	9	525	3	85
60	240	129	9	511	3	101
61	240	127	7	509	3	116
62	240	127	7	467	3	109
63	240	122	2	415	3	167
64	228	126	12	505	3	130
65	228	120	6	457	3	143
66	216	174	66	867	3	76
67	216	150	42	715	3	87
68	216	144	36	683	3	79
69	216	141	33	645	3	120, 121
70	216	130	22	567	3	82
71	216	126	18	519	3	92
72	216	121	13	489	3	106
73	216	117	9	449	3	149
74	216	116	8	453	3	136
75	216	114	6	423	3	139
76	216	112	4	400	4	42, 166
77	208	106	2	365	3	168
78	204	111	9	481	3	117
79	204	111	9	441	3	117
80	204	105	3	381	3	145
81	204	103	1	344	4	54
82	200	101	1	330	4	60

B3

nr.	|χ|	N_G	N_A	N_S	N_V	model
83	192	125	29	557	3	82
84	192	123	27	569	3	85
85	192	123	27	561	3	85
86	192	119	23	533	3	125
87	192	117	21	517	3	96
88	192	112	16	471	3	129
89	192	109	13	527	3	109
90	192	109	13	455	3	111
91	192	109	13	441	3	106
92	192	107	11	487	3	115
93	192	106	10	419	3	107
94	192	104	8	407	3	140
95	192	103	7	402	4	34, 155
96	192	103	7	399	3	133
97	192	101	5	411	3	98
98	192	101	5	372	4	39, 163
99	192	101	5	369	3	140
100	192	99	3	383	3	109
101	192	99	3	361	3	161
102	192	99	3	349	3	158
103	180	105	15	467	3	98
104	180	98	8	371	3	117
105	180	94	4	335	3	163
106	180	90	0	285	5	21
107	168	134	50	691	3	78
108	168	134	50	665	3	94
109	168	118	34	561	3	79
110	168	118	34	557	3	80
111	168	106	22	571	3	91
112	168	104	20	465	3	128
113	168	102	18	455	3	105
114	168	101	17	463	3	123
115	168	100	16	455	3	93
116	168	100	16	440	4	26, 130
117	168	100	16	431	3	105
118	168	98	14	501	3	133
119	168	98	14	451	3	82
120	168	97	13	405	3	106
121	168	96	12	415	3	109
122	168	96	12	403	3	138
123	168	91	7	371	3	145

B4

nr.	|χ|	N_G	N_A	N_S	N_V	model
124	168	91	7	365	3	153
125	168	90	6	353	3	160
126	168	89	5	344	4	47
127	168	86	2	298	4	57
128	168	85	1	285	3	158
129	168	84	0	285	5	17, 54
130	168	84	0	252	8	1, 2, 5, 17, 54
131	160	91	11	363	3	150
132	160	83	3	311	3	168
133	156	95	17	419	3	98
134	156	86	8	371	3	159
135	152	77	1	271	3	168
136	144	143	71	829	3	86
137	144	131	59	701	3	70, 71
138	144	111	39	549	3	80
139	144	105	33	525	3	83
140	144	105	33	513	3	84
141	144	103	31	501	3	90
142	144	98	26	475	3	95
143	144	98	26	465	3	96
144	144	97	25	457	3	104
145	144	95	23	437	3	93
146	144	91	19	437	3	137
147	144	91	19	415	3	141
148	144	90	18	415	3	96
149	144	89	17	405	3	105
150	144	89	17	387	3	109
151	144	88	16	393	3	133
152	144	87	15	413	3	114
153	144	85	13	371	3	109
154	144	85	13	369	3	116
155	144	85	13	367	3	133
156	144	83	11	389	3	140
157	144	83	11	345	3	139
158	144	82	10	361	3	133
159	144	82	10	355	3	140
160	144	81	9	344	4	29, 133
161	144	80	8	341	3	136
162	144	80	8	319	3	140
163	144	79	7	325	3	143
164	144	79	7	321	5	12, 39, 163

B5

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
165	144	79	7	312	4	37, 161
166	144	77	5	325	3	106
167	144	76	4	301	3	117
168	144	75	3	305	3	140
169	144	75	3	294	4	52
170	144	75	3	285	3	140
171	144	75	3	280	4	39, 163
172	144	74	2	284	4	50
173	144	73	1	252	4	57
174	144	73	1	250	6	5, 17, 54
175	132	96	30	479	3	127
176	132	79	13	401	3	117
177	132	72	6	325	3	143
178	132	70	4	279	3	163
179	132	69	3	277	3	145
180	132	69	3	266	4	56
181	128	69	5	267	3	168
182	120	128	68	739	3	77
183	120	125	65	703	3	119
184	120	106	46	573	3	78
185	120	99	39	517	3	95
186	120	92	32	543	3	90
187	120	91	31	471	3	103
188	120	86	26	426	4	24, 25, 128, 129
189	120	85	25	443	3	103
190	120	85	25	425	3	147
191	120	85	25	423	3	111
192	120	84	24	429	3	79
193	120	84	24	425	3	80
194	120	82	22	403	3	97
195	120	81	21	439	3	106
196	120	79	19	395	3	106
197	120	77	17	353	3	106
198	120	76	16	357	3	108
199	120	74	14	341	3	133
200	120	73	13	339	3	130
201	120	72	12	325	3	114
202	120	70	10	311	3	142
203	120	70	10	308	4	36, 160
204	120	70	10	305	3	139
205	120	69	9	319	3	163

B6

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
206	120	69	9	313	3	153
207	120	68	8	329	3	133
208	120	68	8	315	3	105
209	120	68	8	298	4	44
210	120	68	8	285	5	10, 37, 161
211	120	67	7	279	3	145
212	120	67	7	267	3	158
213	120	66	6	281	3	165
214	120	65	5	280	4	55
215	120	63	3	248	4	54
216	120	62	2	250	6	4, 14, 50
217	120	62	2	249	5	14, 50
218	120	62	2	231	5	10, 37, 161
219	120	61	1	261	7	20
220	120	61	1	260	6	21
221	120	61	1	252	4	47
222	112	71	15	439	3	150
223	112	63	7	295	3	157
224	112	59	3	223	3	168
225	112	58	2	221	3	168
226	108	75	21	421	3	130
227	108	74	20	359	3	131
228	108	69	15	339	3	130
229	108	66	12	315	3	143
230	108	64	10	299	3	163
231	108	63	9	265	3	145
232	108	62	8	263	3	163
233	108	61	7	271	3	162
234	108	60	6	288	6	54
235	108	60	6	287	5	59
236	108	57	3	265	3	145
237	108	56	2	243	3	163
238	108	56	2	235	3	163
239	108	56	2	231	3	117
240	108	55	1	224	4	54
241	108	54	0	249	5	21
242	104	53	1	215	3	168
243	96	167	119	1041	3	75
244	96	149	101	907	3	65
245	96	101	53	565	3	79
246	96	93	45	529	3	89

B7

nr.	|x|	N_G	N_A	N_S	N_V	model
247	96	91	43	505	3	82
248	96	87	39	481	3	85
249	96	87	39	475	3	122, 123
250	96	87	39	465	3	85
251	96	85	37	459	3	103
252	96	79	31	441	3	85
253	96	79	31	437	3	90
254	96	79	31	431	3	91
255	96	78	30	421	3	95
256	96	77	29	457	3	93
257	96	75	27	425	3	105
258	96	71	23	389	3	125
259	96	71	23	387	3	156
260	96	71	23	383	3	91
261	96	70	22	353	3	107
262	96	69	21	344	4	29, 133
263	96	68	20	357	3	106
264	96	68	20	333	3	106
265	96	67	19	377	3	85
266	96	67	19	355	3	109
267	96	67	19	343	3	109
268	96	67	19	339	3	115, 129
269	96	67	19	337	3	113, 138
270	96	67	19	334	4	31, 152
271	96	67	19	328	4	32, 153
272	96	67	19	323	3	109
273	96	65	17	347	3	95
274	96	65	17	339	3	96
275	96	65	17	336	4	35, 159
276	96	65	17	321	3	116
277	96	65	17	314	4	40, 164
278	96	64	16	331	3	139
279	96	64	16	325	3	117
280	96	63	15	323	3	103
281	96	63	15	311	3	111
282	96	63	15	307	3	139
283	96	62	14	371	3	140
284	96	62	14	299	3	139
285	96	62	14	283	3	140
286	96	61	13	335	3	133
287	96	61	13	289	3	160

B8

nr.	|x|	N_G	N_A	N_S	N_V	model
288	96	59	11	332	6	39
289	96	59	11	331	5	47
290	96	59	11	319	3	145
291	96	59	11	312	4	29
292	96	59	11	283	3	161
293	96	58	10	309	3	133
294	96	58	10	271	3	140
295	96	57	9	289	3	160
296	96	57	9	279	3	139
297	96	57	9	273	3	140
298	96	57	9	252	4	39, 163
299	96	57	9	249	5	12, 39, 163
300	96	55	7	329	3	93
301	96	55	7	303	3	133
302	96	55	7	276	6	51
303	96	55	7	276	4	42
304	96	55	7	275	5	57
305	96	55	7	270	4	32, 34, 153
306	96	55	7	269	3	140
307	96	55	7	263	3	109
308	96	55	7	251	3	139
309	96	55	7	239	3	165
310	96	54	6	277	3	117
311	96	54	6	263	3	140
312	96	53	5	248	4	47, 50
313	96	53	5	232	4	39, 163
314	96	53	5	229	3	161
315	96	52	4	263	3	140
316	96	52	4	234	4	57
317	96	51	3	281	3	109
318	96	51	3	261	11	17
319	96	51	3	260	10	19
320	96	51	3	259	9	20
321	96	51	3	258	8	21
322	96	51	3	253	7	17, 54
323	96	51	3	252	6	19, 39, 59
324	96	51	3	251	5	47
325	96	51	3	250	6	5, 17, 54
326	96	51	3	236	6	51
327	96	51	3	235	5	57
328	96	51	3	213	5	17, 54

B9

nr.	$|\chi|$	N_G	N_A	N_S	N_V	model
329	96	49	1	228	4	57
330	96	49	1	200	4	54
331	96	48	0	200	4	54
332	88	49	5	258	4	60
333	84	66	24	353	3	130
334	84	54	12	299	3	163
335	84	54	12	297	3	130
336	84	53	11	269	3	130
337	84	52	10	263	3	163
338	84	52	10	255	3	163
339	84	48	6	249	3	143
340	84	48	6	248	4	56
341	84	48	6	223	3	163
342	84	46	4	219	3	163
343	84	45	3	224	4	54
344	84	42	0	237	5	21
345	80	79	39	487	3	146
346	80	51	11	255	3	157
347	80	49	9	251	3	168
348	80	47	7	215	3	168
349	80	43	3	207	3	168
350	72	124	88	783	3	76
351	72	89	53	559	3	126
352	72	80	44	473	3	134
353	72	77	41	463	3	120
354	72	76	40	440	4	23, 127
355	72	74	38	457	3	78
356	72	72	36	419	3	91
357	72	69	33	397	3	151
358	72	68	32	423	3	104
359	72	67	31	371	3	98
360	72	65	29	407	3	129
361	72	65	29	355	3	106
362	72	64	28	395	3	104
363	72	64	28	377	3	114
364	72	62	26	343	3	129
365	72	62	26	339	3	130
366	72	60	24	325	3	133
367	72	59	23	343	3	107
368	72	59	23	335	3	135
369	72	59	23	327	3	136

B10

nr.	$|\chi|$	N_G	N_A	N_S	N_V	model
370	72	59	23	319	3	138
371	72	58	22	321	3	109
372	72	58	22	313	3	107
373	72	57	21	377	3	149
374	72	57	21	333	3	138
375	72	57	21	321	3	129
376	72	57	21	313	3	143
377	72	57	21	301	3	117
378	72	56	20	313	3	133
379	72	56	20	308	4	25, 129
380	72	56	20	306	4	26, 130
381	72	52	16	285	5	9, 36, 160
382	72	51	15	271	3	145
383	72	50	14	289	3	138
384	72	50	14	283	3	142
385	72	50	14	261	3	161
386	72	49	13	319	3	163
387	72	49	13	277	3	140
388	72	49	13	271	3	153, 154
389	72	49	13	263	3	106
390	72	49	13	259	3	138, 143
391	72	49	13	251	3	145
392	72	49	13	249	3	143
393	72	49	13	247	3	163
394	72	48	12	281	3	161
395	72	48	12	256	4	36, 160
396	72	48	12	255	3	160
397	72	48	12	248	4	38, 162
398	72	47	11	283	3	158
399	72	47	11	244	4	47
400	72	46	10	265	3	165
401	72	46	10	253	3	107, 139
402	72	46	10	235	5	18, 56
403	72	46	10	234	4	26, 130
404	72	46	10	230	4	44
405	72	46	10	220	4	42, 166
406	72	45	9	252	6	50
407	72	45	9	251	5	56
408	72	45	9	243	3	145
409	72	44	8	262	4	57
410	72	44	8	248	4	47

B11

nr.	$|\chi|$	N_G	N_A	N_S	N_V	model
411	72	44	8	242	4	39
412	72	44	8	229	3	142
413	72	43	7	248	4	54
414	72	43	7	232	4	50
415	72	43	7	231	3	145
416	72	43	7	215	3	163
417	72	42	6	241	3	139
418	72	42	6	225	3	160
419	72	42	6	223	3	160
420	72	41	5	257	3	106
421	72	41	5	240	4	47
422	72	41	5	215	3	163
423	72	41	5	212	4	50
424	72	40	4	252	8	1, 2, 5, 17, 54
425	72	40	4	226	4	44
426	72	40	4	223	5	18, 56
427	72	40	4	222	4	56, 57
428	72	40	4	219	5	12, 39
429	72	40	4	213	5	17, 54
430	72	39	3	246	8	21
431	72	38	2	220	4	42
432	72	38	2	218	4	57
433	72	38	2	216	4	50
434	72	37	1	236	6	21
435	72	36	0	324	32	1
436	72	36	0	270	14	1, 2, 5, 17
437	72	36	0	229	7	17, 54
438	72	36	0	213	5	17
439	64	59	27	339	3	148
440	64	47	15	287	3	150
441	64	43	11	279	3	168
442	64	43	11	215	3	168
443	64	41	9	243	3	168
444	64	41	9	211	3	168
445	64	37	5	203	3	168
446	64	35	3	199	3	168
447	60	60	30	345	3	111
448	60	59	29	335	3	98
449	60	53	23	307	3	130
450	60	46	16	257	3	143
451	60	45	15	285	3	130

B12

nr.	$|\chi|$	N_G	N_A	N_S	N_V	model
452	60	44	14	299	3	163
453	60	44	14	255	3	117
454	60	40	10	223	3	163
455	60	40	10	219	3	163
456	60	39	9	242	4	56
457	60	38	8	224	4	56
458	60	37	7	235	3	117
459	60	37	7	215	3	117
460	60	36	6	231	5	59
461	60	36	6	216	6	54
462	60	36	6	215	5	59
463	60	35	5	240	6	54
464	60	33	3	214	4	56
465	60	32	2	203	3	163
466	60	31	1	216	6	54
467	60	31	1	200	4	54
468	60	30	0	225	5	21
469	56	29	1	191	3	168
470	54	35	8	197	3	117
471	54	29	2	185	3	117
472	48	95	71	609	3	78
473	48	83	59	559	3	102
474	48	81	57	521	3	81
475	48	81	57	517	3	80
476	48	79	55	561	3	88
477	48	73	49	465	3	84
478	48	73	49	457	3	83
479	48	67	43	433	3	82
480	48	67	43	431	3	83
481	48	63	39	429	3	92
482	48	63	39	413	3	104
483	48	62	38	377	3	96
484	48	61	37	413	3	128
485	48	59	35	389	3	137
486	48	59	35	385	3	90
487	48	59	35	369	3	105
488	48	58	34	371	3	127
489	48	58	34	367	3	129
490	48	55	31	381	3	105
491	48	55	31	365	3	116
492	48	55	31	337	3	104

B13

nr.	$\lvert X \rvert$	N_G	N_A	N_S	N_V	model
493	48	55	31	330	4	26, 27, 130, 131
494	48	53	29	353	3	82
495	48	53	29	351	3	83, 109
496	48	52	28	341	3	133
497	48	52	28	333	3	106
498	48	52	28	331	3	138
499	48	52	28	319	3	132
500	48	51	27	343	3	109
501	48	51	27	319	3	109
502	48	51	27	309	3	109
503	48	50	26	313	3	138
504	48	49	25	303	3	109
505	48	47	23	321	5	8, 35, 159
506	48	47	23	314	4	48
507	48	46	22	319	3	139
508	48	46	22	309	3	130
509	48	46	22	275	3	139
510	48	45	21	283	3	160
511	48	45	21	273	3	140
512	48	44	20	299	3	129
513	48	44	20	279	3	140
514	48	44	20	255	3	140
515	48	43	19	292	6	36, 37
516	48	43	19	291	5	44, 45
517	48	43	19	288	4	26
518	48	43	19	279	3	133
519	48	43	19	276	4	36, 160
520	48	43	19	261	3	160
521	48	43	19	256	4	41, 165
522	48	43	19	255	3	139
523	48	42	18	263	3	140
524	48	42	18	247	3	144
525	48	41	17	283	3	161
526	48	41	17	265	3	140
527	48	41	17	261	3	161
528	48	41	17	259	3	105
529	48	41	17	249	5	11, 38, 162
530	48	41	17	249	3	116
531	48	41	17	247	3	145
532	48	41	17	243	3	160
533	48	40	16	263	3	140

B14

nr.	$\lvert X \rvert$	N_G	N_A	N_S	N_V	model
534	48	40	16	261	3	133
535	48	40	16	249	3	139
536	48	39	15	321	5	12, 39, 163
537	48	39	15	307	3	90
538	48	39	15	303	3	91
539	48	39	15	299	3	90
540	48	39	15	279	3	129
541	48	39	15	277	3	158
542	48	39	15	275	3	130
543	48	39	15	268	6	49
544	48	39	15	267	5	55
545	48	39	15	253	3	140
546	48	39	15	252	6	53
547	48	39	15	251	5	58
548	48	39	15	244	4	37, 39, 163
549	48	39	15	241	3	140
550	48	39	15	233	3	161
551	48	38	14	263	3	167
552	48	38	14	249	3	106
553	48	38	14	229	3	165
554	48	37	13	253	3	140
555	48	37	13	244	4	44
556	48	37	13	243	3	109, 139
557	48	37	13	233	3	140
558	48	37	13	231	3	158
559	48	37	13	227	3	165
560	48	37	13	224	4	36, 160
561	48	37	13	212	4	41, 165
562	48	35	11	265	7	57
563	48	35	11	261	3	104
564	48	35	11	257	3	104
565	48	35	11	248	4	50
566	48	35	11	247	3	114
567	48	35	11	246	4	52
568	48	35	11	243	5	47
569	48	35	11	243	3	138
570	48	35	11	240	4	41, 165
571	48	35	11	232	8	5, 17, 54
572	48	35	11	231	7	6, 19, 59
573	48	35	11	229	7	14, 50
574	48	35	11	229	3	143, 161

B15

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
575	48	35	11	228	6	18, 51, 56
576	48	35	11	227	5	57
577	48	35	11	223	3	165
578	48	35	11	217	3	140
579	48	35	11	213	5	14, 50
580	48	35	11	212	6	36
581	48	35	11	211	5	44
582	48	35	11	207	5	10, 10, 37, 37
583	48	35	11	207	3	165
584	48	34	10	251	3	140
585	48	34	10	222	4	57
586	48	34	10	212	4	50
587	48	34	10	205	3	165
588	48	33	9	250	6	5, 17, 54
589	48	33	9	233	3	140
590	48	33	9	231	3	145
591	48	33	9	228	4	39
592	48	33	9	223	5	57
593	48	33	9	211	3	160
594	48	33	9	204	4	41, 165
595	48	32	8	215	3	140
596	48	32	8	212	4	50
597	48	32	8	201	3	165
598	48	31	7	255	13	20
599	48	31	7	254	12	21
600	48	31	7	243	9	20
601	48	31	7	242	8	21
602	48	31	7	237	5	17, 54
603	48	31	7	229	5	12, 39
604	48	31	7	229	3	109
605	48	31	7	225	7	57
606	48	31	7	220	6	19, 51, 59
607	48	31	7	219	5	57
608	48	31	7	216	4	57
609	48	30	6	228	6	50
610	48	30	6	214	4	57
611	48	30	6	196	4	50
612	48	29	5	235	5	47
613	48	29	5	232	8	5, 17, 54
614	48	29	5	226	6	5, 17, 54
615	48	29	5	218	4	39

B16

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
616	48	29	5	215	5	57
617	48	29	5	212	4	39, 57
618	48	29	5	208	4	39
619	48	29	5	207	5	10, 10, 37, 37
620	48	29	5	195	3	165
621	48	28	4	210	4	57
622	48	28	4	200	4	54
623	48	27	3	270	20	21
624	48	27	3	252	8	1, 2, 5, 17
625	48	27	3	246	12	21
626	48	27	3	234	8	21
627	48	27	3	219	5	12, 39
628	48	27	3	217	7	57
629	48	27	3	213	5	17, 54
630	48	27	3	213	3	140
631	48	27	3	200	4	54
632	48	27	3	193	3	161
633	48	26	2	204	6	50
634	48	26	2	200	4	54
635	48	25	1	230	8	21
636	48	25	1	226	6	5, 17, 54
637	48	25	1	204	4	57
638	48	25	1	195	3	158
639	48	24	0	200	4	54
640	42	28	7	189	3	117
641	40	21	1	210	4	60
642	36	62	44	421	3	95
643	36	44	26	293	3	131
644	36	43	25	265	3	117
645	36	36	18	223	3	163
646	36	35	17	245	3	163
647	36	35	17	229	3	145
648	36	31	13	248	4	54
649	36	30	12	219	3	163
650	36	30	12	216	6	54
651	36	30	12	215	5	59
652	36	30	12	191	3	117
653	36	28	10	207	3	163
654	36	27	9	231	5	21
655	36	27	9	224	4	54
656	36	27	9	214	4	56

B17

nr.	$\|\chi\|$	N_G	N_A	N_S	N_V	model
657	36	27	9	200	4	54
658	36	27	9	193	3	145
659	36	26	8	212	4	56
660	36	25	7	216	6	54
661	36	25	7	195	3	117
662	36	23	5	200	4	54
663	36	22	4	221	5	21
664	36	22	4	197	3	163
665	36	22	4	179	3	163
666	36	21	3	192	6	54
667	32	43	27	315	3	150
668	32	35	19	279	3	168
669	32	35	19	247	3	157
670	32	33	17	243	3	168
671	32	29	13	235	3	168
672	32	29	13	203	3	168
673	32	27	11	199	3	168
674	32	25	9	195	3	168
675	32	23	7	239	3	150
676	32	23	7	223	3	150
677	32	23	7	222	4	60
678	32	23	7	191	3	168
679	32	19	3	183	3	168
680	24	86	74	643	3	87
681	24	80	68	555	3	94
682	24	64	52	467	3	88
683	24	63	51	457	3	103
684	24	62	50	447	3	90
685	24	53	41	401	3	147
686	24	50	38	355	3	92
687	24	50	38	353	3	93
688	24	49	37	355	3	151
689	24	48	36	343	3	97
690	24	48	36	341	3	98
691	24	47	35	381	3	106
692	24	47	35	369	3	117
693	24	47	35	337	3	107
694	24	47	35	329	3	129
695	24	47	35	323	3	106
696	24	46	34	335	3	106
697	24	46	34	331	3	109

B18

nr.	$\|\chi\|$	N_G	N_A	N_S	N_V	model
698	24	46	34	329	3	106
699	24	46	34	321	3	108
700	24	44	32	313	3	133
701	24	44	32	301	3	114
702	24	41	29	319	3	159
703	24	41	29	311	3	95
704	24	40	28	309	3	129
705	24	39	27	313	3	139
706	24	39	27	299	3	145
707	24	39	27	277	3	153
708	24	38	26	283	3	139
709	24	38	26	275	3	139
710	24	38	26	271	3	140
711	24	37	25	287	3	129
712	24	37	25	279	3	131
713	24	37	25	271	3	138
714	24	36	24	285	5	9, 36, 160
715	24	36	24	261	3	160
716	24	35	23	259	3	106
717	24	35	23	247	3	162
718	24	35	23	243	3	145
719	24	34	22	272	4	37, 161
720	24	34	22	265	3	138
721	24	34	22	256	4	42, 166
722	24	34	22	253	3	139
723	24	34	22	238	4	37, 161
724	24	34	22	234	4	39, 163
725	24	33	21	267	3	149
726	24	33	21	263	3	154
727	24	33	21	247	3	163
728	24	33	21	243	3	140
729	24	32	20	285	5	10, 37, 161
730	24	32	20	261	3	133, 138, 139, 165
731	24	32	20	249	3	106
732	24	32	20	241	3	106, 139
733	24	32	20	237	3	109
734	24	31	19	235	3	145
735	24	31	19	231	3	145
736	24	30	18	223	3	139
737	24	30	18	221	3	140, 160
738	24	30	18	209	3	165

B19

nr.	$\|\chi\|$	N_G	N_A	N_S	N_V	model
739	24	29	17	256	4	55
740	24	29	17	244	6	50
741	24	29	17	243	5	56
742	24	29	17	230	6	54
743	24	29	17	229	5	59
744	24	29	17	225	3	158
745	24	29	17	223	3	139
746	24	29	17	215	3	145
747	24	28	16	242	4	44
748	24	28	16	222	4	39, 163
749	24	28	16	219	3	160
750	24	27	15	248	4	54
751	24	27	15	245	7	56
752	24	27	15	239	3	139
753	24	27	15	236	4	50
754	24	27	15	212	4	50
755	24	27	15	203	3	163
756	24	26	14	250	6	4, 14, 50
757	24	26	14	250	4	57
758	24	26	14	238	4	44
759	24	26	14	232	4	37
760	24	26	14	231	5	10, 37, 161
761	24	26	14	224	4	37
762	24	26	14	222	4	44
763	24	26	14	220	4	42
764	24	26	14	219	3	160
765	24	26	14	212	4	47
766	24	25	13	237	7	20
767	24	25	13	236	6	21
768	24	25	13	225	3	106
769	24	25	13	219	5	56
770	24	25	13	219	3	117
771	24	25	13	215	3	139, 163
772	24	25	13	213	3	158
773	24	25	13	207	3	145
774	24	25	13	205	3	106
775	24	25	13	204	6	50
776	24	25	13	203	5	56
777	24	25	13	200	4	57
778	24	25	13	199	3	117
779	24	25	13	188	4	47

B20

nr.	$\|\chi\|$	N_G	N_A	N_S	N_V	model
780	24	24	12	252	8	1, 2, 5, 17, 54
781	24	24	12	233	5	10, 37
782	24	24	12	230	4	37, 39
783	24	24	12	225	5	14, 50
784	24	24	12	220	6	37
785	24	24	12	216	4	47
786	24	24	12	214	6	5, 17, 39, 54
787	24	24	12	214	4	57
788	24	24	12	213	5	17, 54
789	24	24	12	197	3	165
790	24	24	12	186	4	39
791	24	24	12	183	5	12, 39
792	24	23	11	230	6	54
793	24	23	11	215	5	56
794	24	23	11	215	3	163
795	24	23	11	212	4	47, 50
796	24	23	11	200	4	54
797	24	23	11	195	3	163
798	24	22	10	218	4	37
799	24	22	10	215	5	10, 37
800	24	22	10	213	5	17, 54
801	24	22	10	210	4	37, 56, 57
802	24	22	10	204	4	42
803	24	22	10	193	3	165
804	24	21	9	229	7	20
805	24	21	9	228	6	21
806	24	21	9	211	5	56, 57
807	24	21	9	203	3	163
808	24	21	9	200	4	54
809	24	21	9	197	5	59
810	24	21	9	196	6	50
811	24	21	9	195	5	56
812	24	21	9	192	4	57
813	24	21	9	182	6	54
814	24	21	9	181	5	59
815	24	20	8	232	8	5, 17
816	24	20	8	223	5	17
817	24	20	8	216	4	50
818	24	20	8	214	4	39
819	24	20	8	211	3	139
820	24	20	8	207	7	17

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
821	24	20	8	207	5	10, 10, 37, 37
822	24	20	8	206	4	57
823	24	20	8	205	7	17, 54
824	24	20	8	205	3	139
825	24	20	8	199	3	145
826	24	20	8	174	6	39
827	24	19	7	230	8	21
828	24	19	7	224	6	21
829	24	19	7	200	4	54
830	24	19	7	197	7	56
831	24	19	7	196	4	50
832	24	19	7	191	5	57
833	24	18	6	270	14	1, 2, 5, 17
834	24	18	6	252	8	1, 2, 5, 17, 54
835	24	18	6	214	6	5, 17
836	24	18	6	213	5	17
837	24	18	6	202	4	57
838	24	18	6	201	5	17, 54
839	24	18	6	177	5	54
840	24	17	5	238	12	21
841	24	17	5	220	6	21
842	24	17	5	203	5	57
843	24	17	5	200	4	54
844	24	17	5	195	3	163
845	24	17	5	193	7	57
846	24	16	4	252	8	1, 2, 5, 17, 54
847	24	16	4	214	6	5, 17, 54
848	24	16	4	201	5	17, 54
849	24	16	4	200	4	54
850	24	16	4	198	4	57
851	24	15	3	222	8	21
852	24	15	3	182	6	54
853	24	12	0	252	8	1
854	18	23	14	173	3	117
855	16	31	23	279	3	157
856	16	29	21	243	3	168
857	16	27	19	247	3	150
858	16	27	19	239	3	157
859	16	27	19	207	3	168
860	16	25	17	203	3	168
861	16	23	15	199	3	168

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
862	16	21	13	195	3	168
863	16	19	11	191	3	168
864	16	16	8	185	3	168
865	16	15	7	183	3	168
866	12	61	55	447	3	95
867	12	57	51	447	3	127
868	12	48	42	357	3	127
869	12	44	38	333	3	130
870	12	42	36	327	3	131
871	12	38	32	299	3	159
872	12	38	32	295	3	117
873	12	34	28	257	3	143
874	12	30	24	261	3	131
875	12	30	24	247	3	130
876	12	29	23	223	3	162
877	12	28	22	243	3	163
878	12	28	22	223	3	163
879	12	26	20	227	3	163
880	12	26	20	219	3	163
881	12	26	20	207	3	163
882	12	24	18	236	4	56
883	12	23	17	224	4	54
884	12	23	17	205	3	145
885	12	21	15	197	3	163
886	12	20	14	207	5	59
887	12	20	14	199	3	163
888	12	20	14	195	3	163
889	12	20	14	192	6	54
890	12	20	14	191	5	59
891	12	20	14	191	3	117
892	12	19	13	200	4	54
893	12	18	12	188	4	54
894	12	17	11	223	5	21
895	12	16	10	200	4	54
896	12	16	10	199	3	163
897	12	16	10	183	5	59
898	12	15	9	219	5	21
899	12	15	9	200	4	54
900	12	15	9	192	6	54
901	12	14	8	217	5	21
902	12	14	8	188	4	54

B23

nr.	$\|\chi\|$	N_G	N_A	N_S	N_V	model
903	12	13	7	188	4	54
904	12	12	6	213	5	21
905	12	12	6	175	3	163
906	12	12	6	173	3	163
907	12	11	5	176	4	54
908	12	11	5	164	4	54
909	12	6	0	201	5	21
910	8	21	17	234	4	60
911	8	13	9	210	4	60
912	8	13	9	183	3	168
913	8	11	7	179	3	168
914	0	251	251	1779	3	61
915	0	143	143	1023	3	64
916	0	119	119	873	3	118
917	0	107	107	791	3	67
918	0	97	97	701	3	76
919	0	89	89	663	3	94
920	0	83	83	611	3	73, 74
921	0	79	79	581	3	99
922	0	75	75	565	3	79
923	0	71	71	539	3	119
924	0	71	71	536	4	22, 126
925	0	71	71	533	3	120
926	0	69	69	533	3	76
927	0	63	63	473	3	82
928	0	59	59	487	3	100
929	0	59	59	449	3	85
930	0	55	55	445	3	80
931	0	55	55	423	3	84
932	0	55	55	421	3	85
933	0	55	55	417	3	124, 125
934	0	55	55	414	4	30, 151
935	0	53	53	443	3	94
936	0	53	53	405	3	134
937	0	49	49	401	3	93
938	0	49	49	375	3	127
939	0	49	49	371	3	97
940	0	47	47	389	3	122, 137
941	0	45	45	350	4	23, 127
942	0	45	45	344	4	25, 129
943	0	43	43	419	3	109

B24

nr.	$\|\chi\|$	N_G	N_A	N_S	N_V	model
944	0	43	43	339	3	105, 112
945	0	41	41	323	3	109
946	0	41	41	316	4	28, 29, 132, 133
947	0	40	40	335	3	106
948	0	39	39	330	4	30, 151
949	0	39	39	327	3	84
950	0	39	39	325	3	85
951	0	39	39	313	3	131
952	0	39	39	311	3	133
953	0	38	38	327	3	138
954	0	38	38	311	3	106
955	0	37	37	297	3	116
956	0	35	35	332	6	35
957	0	35	35	331	5	43
958	0	35	35	319	3	135
959	0	35	35	314	4	24
960	0	34	34	347	3	140
961	0	33	33	275	3	138
962	0	33	33	273	3	139
963	0	33	33	263	3	141
964	0	32	32	273	3	133
965	0	31	31	311	3	127
966	0	31	31	286	4	31
967	0	31	31	283	3	160
968	0	31	31	279	3	133
969	0	31	31	273	3	116
970	0	31	31	271	3	142
971	0	31	31	270	4	27, 131
972	0	31	31	268	4	29, 133
973	0	31	31	259	3	139
974	0	31	31	256	4	33, 154
975	0	31	31	254	4	34, 155
976	0	30	30	267	3	140
977	0	29	29	300	4	39, 163
978	0	29	29	251	3	97, 98
979	0	29	29	247	3	144
980	0	28	28	253	3	139
981	0	28	28	239	3	140
982	0	27	27	264	4	29
983	0	27	27	255	3	109
984	0	27	27	252	6	38, 39

B25

nr.	|x|	N_G	N_A	N_S	N_V	model
985	0	27	27	251	5	46, 47
986	0	27	27	242	4	26
987	0	25	25	265	3	140
988	0	25	25	249	5	12, 39, 163
989	0	25	25	243	3	139
990	0	25	25	221	3	160
991	0	25	25	212	4	41
992	0	24	24	225	3	165
993	0	23	23	265	7	55
994	0	23	23	265	3	92
995	0	23	23	263	3	93
996	0	23	23	260	6	51
997	0	23	23	259	5	57
998	0	23	23	249	3	131
999	0	23	23	247	3	133
1000	0	23	23	243	5	44
1001	0	23	23	240	4	33, 154
1002	0	23	23	230	6	50
1003	0	23	23	229	5	56
1004	0	23	23	229	3	140
1005	0	23	23	228	6	51
1006	0	23	23	227	5	57
1007	0	23	23	225	3	116, 140
1008	0	23	23	224	4	26, 29
1009	0	23	23	217	5	10, 37, 161
1010	0	23	23	209	5	12, 39, 163
1011	0	23	23	208	4	42
1012	0	22	22	239	3	106
1013	0	22	22	209	3	117
1014	0	21	21	235	3	139
1015	0	21	21	232	4	39, 163
1016	0	21	21	224	4	47
1017	0	21	21	220	4	39
1018	0	21	21	219	3	165
1019	0	21	21	216	4	39, 163
1020	0	21	21	207	3	161
1021	0	21	21	204	4	41
1022	0	20	20	223	3	140
1023	0	19	19	250	6	5, 17, 54
1024	0	19	19	244	10	19
1025	0	19	19	243	9	20

B26

nr.	|x|	N_G	N_A	N_S	N_V	model
1026	0	19	19	242	8	21
1027	0	19	19	232	4	39
1028	0	19	19	226	8	18, 56
1029	0	19	19	225	7	57
1030	0	19	19	223	3	106, 109
1031	0	19	19	221	3	109
1032	0	19	19	220	6	51
1033	0	19	19	219	5	57
1034	0	19	19	216	4	57
1035	0	19	19	213	5	17, 54
1036	0	19	19	209	3	139
1037	0	19	19	205	7	17, 54
1038	0	19	19	205	3	140
1039	0	19	19	204	6	19, 59
1040	0	19	19	199	3	165
1041	0	19	19	189	3	161
1042	0	19	19	188	6	51
1043	0	19	19	187	5	57
1044	0	19	19	181	5	10, 37, 161
1045	0	19	19	172	6	39
1046	0	19	19	171	5	47
1047	0	18	18	215	3	140
1048	0	18	18	214	4	57
1049	0	18	18	212	4	50
1050	0	18	18	197	3	165
1051	0	17	17	239	5	44
1052	0	17	17	230	6	50
1053	0	17	17	229	5	12, 39
1054	0	17	17	215	5	57
1055	0	17	17	213	5	14, 17, 50, 54
1056	0	17	17	205	3	167
1057	0	17	17	200	4	39
1058	0	17	17	195	3	165
1059	0	16	16	210	4	57
1060	0	16	16	208	4	50
1061	0	16	16	193	3	165
1062	0	15	15	270	20	21
1063	0	15	15	234	8	21
1064	0	15	15	231	3	149
1065	0	15	15	222	4	52
1066	0	15	15	219	7	56

B27

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
1067	0	15	15	217	7	57
1068	0	15	15	214	6	50
1069	0	15	15	213	5	17, 56
1070	0	15	15	212	6	51
1071	0	15	15	211	5	57
1072	0	15	15	208	4	57
1073	0	15	15	207	3	161
1074	0	15	15	204	4	39
1075	0	15	15	186	6	54
1076	0	15	15	185	5	59
1077	0	14	14	220	6	50
1078	0	14	14	207	3	139
1079	0	14	14	206	6	54
1080	0	14	14	206	4	57
1081	0	14	14	203	3	140
1082	0	14	14	191	3	106
1083	0	14	14	187	3	117
1084	0	13	13	252	8	1, 2, 5, 17
1085	0	13	13	230	8	21
1086	0	13	13	226	6	5, 17
1087	0	13	13	214	6	5, 17, 54
1088	0	13	13	207	5	57
1089	0	13	13	204	4	57
1090	0	13	13	202	4	39
1091	0	13	13	200	4	54
1092	0	13	13	199	5	44
1093	0	13	13	199	3	140
1094	0	13	13	198	4	37, 161
1095	0	13	13	195	5	47
1096	0	13	13	194	4	39, 163
1097	0	13	13	189	3	161
1098	0	13	13	184	4	42, 166
1099	0	13	13	183	5	12, 39
1100	0	12	12	200	4	54
1101	0	12	12	183	3	139
1102	0	12	12	181	3	140
1103	0	12	12	176	4	54
1104	0	12	12	175	3	145
1105	0	11	11	238	12	21
1106	0	11	11	232	8	5, 17
1107	0	11	11	227	9	20

B28

nr.	$\lvert\chi\rvert$	N_G	N_A	N_S	N_V	model
1108	0	11	11	226	8	21
1109	0	11	11	226	6	5, 17
1110	0	11	11	220	6	21
1111	0	11	11	217	5	37, 161
1112	0	11	11	209	5	12, 39, 163
1113	0	11	11	203	5	57
1114	0	11	11	201	5	17, 54
1115	0	11	11	200	4	57
1116	0	11	11	193	3	167
1117	0	11	11	189	3	158
1118	0	11	11	177	7	57
1119	0	11	11	172	6	51
1120	0	11	11	171	5	57
1121	0	11	11	165	3	106
1122	0	11	11	163	3	109
1123	0	10	10	198	4	57
1124	0	10	10	196	6	50
1125	0	10	10	182	6	54
1126	0	9	9	270	14	1
1127	0	9	9	252	8	1, 2, 5, 17
1128	0	9	9	222	8	21
1129	0	9	9	216	6	21
1130	0	9	9	214	6	5, 17, 50, 54
1131	0	9	9	200	4	54
1132	0	9	9	190	4	39, 163
1133	0	9	9	189	5	17, 54
1134	0	9	9	186	6	54
1135	0	9	9	183	5	57
1136	0	9	9	180	4	57
1137	0	9	9	177	5	17
1138	0	9	9	152	4	39
1139	0	8	8	176	4	54
1140	0	7	7	252	8	1, 2
1141	0	7	7	181	5	37, 161
1142	0	7	7	177	3	158
1143	0	6	6	176	4	54
1144	0	5	5	208	6	21
1145	0	3	3	210	8	21

C1

nr.	N_R	N_L	N_G	N_A	N_S	N_V	model
1	1	2	12	0	300	31	1
2	1	2	12	0	246	13	1, 2, 5, 17
3	1	2	12	0	196	11	5, 17, 54
4	1	2	12	0	193	10	14, 17, 50, 54
5	1	2	12	0	159	10	10, 37
6	1	2	12	0	147	10	12, 39
7	1	2	10	0	240	21	21
8	1	2	10	0	216	13	21
9	1	2	10	0	204	9	21
10	1	2	10	0	187	8	44, 57
11	1	2	10	0	179	8	47
12	1	2	10	0	171	8	57
13	1	2	10	0	169	12	56
14	1	2	10	0	167	12	57
15	1	2	6	0	258	13	1, 2, 5
16	1	2	6	0	216	13	21
17	1	2	6	0	204	9	21
18	1	4	0	0	324	24	1
19	1	4	0	0	240	18	21
20	2	1	12	12	216	32	1
21	2	1	12	12	180	14	1, 2, 5, 17
22	2	1	12	12	174	11	17
23	2	1	12	12	168	8	5, 17, 54
24	2	1	12	12	166	7	14, 17, 50, 54
25	2	1	12	12	162	5	10, 12, 37, 39
26	2	1	10	10	180	20	21
27	2	1	10	10	164	12	21
28	2	1	10	10	156	8	21
29	2	1	10	10	154	7	56, 57, 57
30	2	1	10	10	150	5	44, 47, 57
31	2	1	6	6	180	14	1, 2, 5, 17
32	2	1	6	6	168	8	5, 17
33	2	1	6	6	156	12	21
34	2	1	6	6	148	8	21
35	2	2	20	20	160	23	7, 20
36	2	2	20	20	160	21	21
37	2	2	20	20	148	17	5, 17
38	2	2	20	20	148	15	19
39	2	2	20	20	146	16	6, 19
40	2	2	20	20	146	14	20
41	2	2	20	20	144	15	7, 20

C2

nr.	N_R	N_L	N_G	N_A	N_S	N_V	model
42	2	2	20	20	144	13	21
43	2	2	20	20	140	13	1, 2, 5, 17, 54
44	2	2	20	20	140	11	3, 6, 19, 59
45	2	2	20	20	136	11	4, 5, 7, 14, 17, 20, 50, 54
46	2	2	20	20	136	9	18, 19, 21, 56, 59
47	2	2	20	20	134	10	8 – 17, 35 – 39, 49, 50, 51, 53, 54 17
48	2	2	20	20	134	8	43 – 47, 55 – 59
49	2	2	12	12	192	37	21
50	2	2	12	12	162	22	20
51	2	2	12	12	160	21	21
52	2	2	12	12	144	13	18, 21, 56
53	2	2	12	12	142	12	55, 56, 57
54	2	2	12	12	136	9	19, 21, 59
55	2	2	12	12	134	8	44, 47, 56, 57, 59
56	2	2	8	8	200	31	1, 2, 5, 17
57	2	2	8	8	172	17	5, 17
58	2	2	8	8	164	13	1, 2, 5, 17, 54
59	2	2	8	8	160	11	4, 5, 14, 17, 50, 54
60	2	2	8	8	158	10	12
61	2	2	4	4	160	21	21
62	2	2	4	4	148	15	19
63	2	2	4	4	146	14	20
64	2	2	4	4	144	13	21
65	2	2	2	2	176	13	1, 2, 5
66	2	4	0	0	216	24	1
67	2	4	0	0	192	34	21
68	4	1	0	0	0	32	1
69	4	1	0	0	0	20	21
70	4	2	0	0	0	37	21
71	4	2	0	0	0	31	1, 2, 5, 17
72	4	4	0	0	0	78	1
73	4	4	0	0	0	66	21
74	4	4	0	0	0	36	7, 20
75	4	4	0	0	0	34	21
76	4	4	0	0	0	24	1, 2, 5, 17
77	4	4	0	0	0	22	3, 6, 19
78	4	4	0	0	0	20	7, 20
79	4	4	0	0	0	18	21