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IRT Analysis of General Outcome Measures in Grades 1-8

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Abstract

We present scaling outcomes for mathematics assessments used in the fall to screen students at risk of failing to learn the knowledge and skills described in the National Council of Teachers of Mathematics (NCTM) Focal Point Standards. At each grade level, the assessment consisted of a 48-item test with three 16-item sub-test sets aligned to the essential focal points at that grade level. All assessments were scaled using item response theory (IRT) with a 1 PL model. We describe several summary statistics of the item, including the range of measure statistics, outfit, expected and observed performance, and overall person reliability indices. Our findings suggest all items functioned well and may be useful in identifying students in need of instructional supports.

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The National Council of Teachers of Mathematics (NCTM) Curriculum Focal Points are intended to guide the efforts of states, districts, and researchers to bring focus to the teaching, learning, and assessing of mathematics, pre-kindergarten through eighth grade (http://www.nctm.org/standards/focalpoints). In fact, the NCTM specifically recommends that formative assessments be developed to monitor the progress students make on the elements of the focal points. The focal point standards align closely with the ways in which mathematical content has been organized on NAEP assessments since 1990 (National Assessment Governing Board, 2006). Both focus on five areas, with different areas emphasized at different grade levels. Those five areas include the following content.

- Number and Operations (including computation and the understanding of number concepts)

- Measurement (including use of instruments, application of processes, and concepts of area and volume)

- Geometry (including spatial reasoning and applying geometric properties)

- Data Analysis (including probability, graphs, and statistics)

- Algebraic Representations and Relationships

In our system, sensitive progress measures are used to gauge the effectiveness of instructional materials and approaches. Many textbooks include measures of progress on their own lessons and activities. However, more robust measures, independent of specific textbook lessons, could more objectively measure student progress on all focal points, regardless of the content of the current lessons. These assessments, however, also need to be aligned with standards and scaled specifically to be sensitive to progress.

Curriculum-based measurement (CBM), long a bastion of special education, is gaining support among general education teachers seeking a way to monitor the progress their students are making toward achieving grade-level proficiency in key skill and content areas. While reading in particular has received a great deal of attention in the CBM literature, a growing body of work is appearing in the area of mathematics CBM.

By definition, CBM is a formative assessment approach. By sampling skills related to the curricular content covered in a given year of instruction yet not specifically associated with a particular textbook, CBMs provide teachers with a snapshot of their students' current level of proficiency in a particular content area as well as a mechanism for tracking the progress students make in gaining desired academic skills throughout the year. Historically, CBMs have been very brief individually administered measures (Deno, 2003), yet they are not limited to the 'one minute timed probes' many people associate with CBM.

As a useful formative assessment method, CBM has been extensively researched, much of which has focused on reading. With the establishment of CBM as a useful means of assessment for decision-making, we can apply its utility to mathematics, as it has been applied to reading. In keeping with the NCTM Focal Point Standards, the system must include measures of: (a) number and operations, (b) geometry, (c) algebraic relations, (d) measurement, and (e) analysis. Furthermore, we argue for this system to be appropriately scaled in the development of alternate forms (using item response theory). This requirement allows our proposed measurement system to fit within the large-scale assessment system of states, virtually all of which are based on item response theory (IRT).

Method

Setting and Subjects

Two school districts participated in a fall 2009 norming; their data were combined into a single file for purposes of scaling items. The demographics from a previous academic year have been reported in: Tindal, G., Nese, J., & Alonzo, J. (2009). *Criterion-related evidence using easyCBM*® *reading measures and student demographics to predict state test performance in grades 3 – 8.* (Technical Report No. 0910). Eugene, OR: Behavioral Research and Teaching: University of Oregon.

Measurement/Instrument Development

In item development, we focused on developing three benchmark measures (fall, winter, and spring) that address three critical focal point standards and 10 alternate forms of progress monitoring measures for each focal point. We used a structured item writing process to ensure the tasks were developed systematically using principles of universal design; then we reviewed the items for bias and sensitivity. We addressed *reliability* by collecting procedural evidence as part of the training of teachers in the administration of the test to ensure proper implementation statewide. We also have planned on documenting internal consistency of the items within tasks and IRT fit statistics as we further develop items and tasks.

In developing the items, we used the procedures described by Ketterlin-Geller, Alonzo, Braun-Morgan, and Tindal (2007) with items formatted in simplified-language.

- Replace indirect sentences with direct sentences.
- Reduce the number of words.
- Rewrite conditional phrases.
- Replace long words with shorter synonyms.
- Organize the information into a logical sequence.

- Do not replace mathematics-specific vocabulary.

Where needed, the EDL Core Vocabulary List was used to maintain elementary level readability while maintaining the integrity of the targeted mathematics concepts. We have published four technical reports on the development of the mathematics items in each of several grade levels. Additional technical reports covering the other grade levels are forthcoming.

Lai, C.F., Alonzo, J., Tindal, G. (2009). *The development of K-8 progress monitoring measures in mathematics for use with the 2% and general education populations: Grade 5* (Technical Report No. 0901). Eugene, OR: Behavioral Research and Teaching: University of Oregon.

Alonzo, J., Lai, C.F., Tindal, G. (2009). *The development of K-8 progress monitoring measures in mathematics for use with the 2% and general education populations: Grade 3* (Technical Report No. 0902). Eugene, OR: Behavioral Research and Teaching: University of Oregon.

Alonzo, J., Lai, C.F., Tindal, G. (2009). *The development of K-8 progress monitoring measures in mathematics for use with the 2% and general education populations: Grade 4* (Technical Report No. 0903). Eugene, OR: Behavioral Research and Teaching: University of Oregon.

Lai, C.F., Alonzo, J., Tindal, G. (2009). *The development of K-8 progress monitoring measures in mathematics for use with the 2% and general education populations: Grade 8* (Technical Report No. 0904). Eugene, OR: Behavioral Research and Teaching: University of Oregon.

All items were equated using a Rasch 1PL model and are loaded onto a web-based system for districts to use. All items were aligned with grade level standards, as required by the 2% regulations although a formal alignment of items to grade level content standards is still in the planning stages (to be conducted in January 2010), using Tindal's (2005)[1] adaptation of Webb's process, focusing on categorical concurrence, range of knowledge, depth of knowledge, and balance of representation.

Design and Operational Procedures

The test is computer-based, in which individual items are presented on a screen with three options. Each option is presented in a large bracketed area that can be selected by clicking anywhere in the area. Students are typically tested in computer labs (N.B. An algorithm is used to randomly rotate options for each problem to prevent students who are sitting close to each other from copying responses).

Data Preparation and Analysis

After the normative period was done, all data were transferred to a data file in which individual items were depicted with three fields: (a) the option selected, (b) the correctness of the item (0=incorrect and 1=correct), and (c) the focal point domain. The following field codes were used to organize the data file. The column headers for each file were different to reflect the focal points for each grade. The following key maps grades to test types and test names.

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[1] Tindal, G. (2005) *Alignment of Alternate Assessments Using the Webb System.* Washington, DC: Council of Chief State School Officers.

Kindergarten	=>	'math_numop', 'math_geo', 'math_msmt'
Grade 1	=>	'math_numop', 'math_geo', 'math_numopalg'
Grade 2	=>	'math_numop', 'math_geo', 'math_numopalg'
Grade 3	=>	'math_numop', 'math_geo', 'math_numopalg'
Grade 4	=>	'math_numop', 'math_mda', 'math_numopalg'
Grade 5	=>	'math_numop', 'math_gma', 'math_numopalg'
Grade 6	=>	'math_numop', 'math_alg', 'math_numoprat'
Grade 7	=>	'math_noag', 'math_mga', 'math_numopalg'
Grade 8	=>	'math_alg', 'math_geomsmt', 'math_danoa'

Test names

'math_numop'	=>	'Math Numbers and Operations',
'math_geo'	=>	'Math Geometry',
'math_mda'	=>	'Math Measurement',
'math_gma'	=>	'Math Geometry Measurement and Algebra',
'math_noag'	=>	'Math Nums Ops Algebra and Geometry',
'math_mga'	=>	'Math Measurement Geometry and Algebra',
'math_numopalg'	=>	'Math Numbers Operations and Algebra',
'math_alg'	=>	'Math Algebra',
'math_numoprat'	=>	'Math Numbers Operations and Ratios',
'math_geomsmt'	=>	'Math Geometry and Measurement',
'math_msmt'	=>	'Math Measurement',
'math_danoa'	=>	'Math Data Analysis Nums Ops and Algebra'

Results

Table 1 reports the descriptive statistics for the sample by school district (SD 1 and SD 2), grade-level (1-8), and demographic variables from a previous study during the spring of 2009. However, the scaling results reported are from the fall of 2009. Therefore, Table 1 presents an approximation of the demographics at the time of the study and not the exact characteristics. Data were compiled from both districts, making the sample considerably larger. IRT data are provided in the Item Characteristics Table (Grade 1-8). The test was administered during the fall of the 2009 school year in two mid-sized districts in Oregon. IRT was used to calibrate items using a one-parameter logistic Rasch model. We report the results in terms of a scale that represents item difficulty-student ability. On the low end of the scale (approximately -3.0) are easy items or low ability students; on the high end of the scale (approximately 3.0) are difficult items or high ability students.

Grade One

The NCTM focal points for grade one are: (a) number and operations, (b) geometry, and (c) number and operations and algebra. The sample ranged in size from 919-929 students per item. Items ranged in difficulty from -2.96 (geometry, item 3) to 1.69 (number operations and algebra, item 11). One item had a difficulty of exactly 0 (number and operations and algebra, item 3), 26 had a difficulty greater than 0, and 21 had a difficulty less than 0. Each focal point was reasonably well distributed in difficulty. Geometry was the easiest focal point, with 12 items below 0 and 4 above. Number and operations was more difficult, with 8 items above 0 and 8 items below. Number and operations and algebra was the most difficult focal point, with only 1 item below 0, one equal to 0, and the remaining 14 above. Measurement error was generally quite low, ranging from .07 to .15. However, simply examining the range is somewhat misleading, as all but two items had a measurement error of less than .1 (geometry items 3 and 4 had measurement error of .15 and .10 respectively).

Data fit the model well, with outfit statistics ranging from .63 to 1.34 and centering relatively close to 1. Of the 48 items, 27 had a value of less than 1, one had a value of exactly 1 (number and operations, item 12), and the remaining 20 had a value greater than 1. The point measure correlations had low-moderate values, ranging from .06 (number and operations and algebra, item 11) to .42 (number and operations, item 16; geometry, item 9). The observed match of the items was generally close to the expected match. Discrimination ranged from .40 (number and operations and algebra, item 14) to 1.55 (number and operations, item 16).

Grade Two

Grade two tests measure: (a) number and operations, (b) geometry, and (c) number and operations and algebra. The sample ranged in size from 236-328 students per item. Items ranged in difficulty from -2.2 (number and operations, item 1) to 2.13 (geometry, item 5). Overall, 26

items had a difficulty greater than 0, and 22 items had a difficulty less than 0. Each focal point was reasonably well distributed in difficulty. Geometry was the easiest focal point, with 9 items below 0 and 7 above. Number and operations and algebra was more difficult, with 7 items below 0 and 9 above. Number and operations was the most difficult focal point with 6 items below 0 and the remaining 10 above. Measurement error was generally quite low, ranging from .12 to .19.

Data fit the model well, with outfit statistics ranging from .79 to 1.27 and centering relatively close to 1. Of the 48 items, 26 had a value of less than 1, one had a value of exactly 1 (geometry, item 11), and the remaining 21 cases had a value greater than 1. The point measure correlations had low-moderate values, ranging from .01 (number and operations, item 5) to .46 (number and operations and algebra, item 10). The observed match of the items was generally close to the expected match. Discrimination ranged from .36 (number and operations, item 5) to 1.48 (number and operations and algebra, item 10)

Grade Three

The NCTM focal points for grade three are: (a) number and operations, (b) geometry, and (c) number and operations and algebra. The sample ranged in size from 2,047-2,063 students per item. Items ranged in difficulty from -4.05 (geometry, item 3) to 3.15 (number and operations, item 5). One item had a difficulty of exactly 0 (number and operations, item 9), 27 had a difficulty greater than 0, and 20 items had a difficulty less than 0. Each focal point was reasonably well distributed in difficulty. Geometry was the easiest focal point, with 8 items above and 8 items below 0. Number and operations was more difficult, with 5 items below 0, one equal to 0, and the remaining 10 above. Number and operations and algebra was similarly distributed but slightly more difficult, with 4 items below 0 and the remaining 12 above.

Measurement error was generally quite low, ranging from .05 to .23. However, 40 of the 48 items had measurement error ranging from .05 to .07.

Data fit the model well, with outfit statistics ranging from .56 to 1.73 and centering relatively close to 1. Of the 48 items, 29 had a value of less than 1 and the remaining 19 had a value greater than 1. The point measure correlations had low-moderate values, ranging from .09 (number and operations and algebra, item 5; geometry, item 8) to .51 (number and operations and algebra, item 7). The observed match of the items was generally close to the expected match. Discrimination ranged from .31 (geometry, item 5) to 1.41 (number operations and algebra, item 7).

Grade Four

The NCTM focal points for grade four are: (a) number and operations, (b) measurement, and (c) number and operations and algebra. The sample ranged in size from 1,205-1,213 students per item. Items ranged in difficulty from -4.6 (measurement, item 1) to 3.75 (measurement, item 5). Overall, 29 items had a difficulty of greater than 0 and 19 items had a difficulty of less than 0. Each focal point was reasonably well distributed in difficulty. Measurement was the easiest focal point, with 10 items below 0 and 7 above. Number and operations and algebra was more difficult, with 5 items below 0 and 11 above. Number and operations was similarly distributed but slightly more difficult, with 4 items below 0 and the remaining 12 above. Measurement error was generally quite low, ranging from .06 to .45. However, 47 of the 48 items had measurement error ranging from .06 to .17, with one item being a considerable outlier (measurement, item 1).

Data fit the model well, with outfit statistics ranging from .41 to 1.91 and centering relatively close to 1. Of the 48 items, 28 had a value of less than 1, one had a value of exactly 1 (number and operations, item 10) and the remaining 19 had a value greater than 1. The point measure correlations had low-moderate values, ranging from .05 (number and operations, item 7)

to .56 (measurement, item 13). The observed match of the items was generally close to the

expected match. Discrimination ranged from -.39 (number and operations, item 7) to 1.50

(measurement, item 13).

Grade Five

The NCTM focal points for grade five are: (a) number and operations, (b) geometry,

measurement, and algebra, and (c) number and operations and algebra. The sample ranged in

size from 2,076-2,101 students per item. Items ranged in difficulty from -2.59 (geometry,

measurement, and algebra, item 1) to 2.61 (geometry, measurement, and algebra, item 5).

Overall, 24 items had a difficulty greater than 0 and 24 items had a difficulty less than 0. Each

focal point was reasonably well distributed in difficulty. Geometry, measurement, and algebra

was the easiest focal point, with 9 items below 0 and 7 above. Number and operations was more

difficult, with 8 items below 0 and 8 above. Number and operations and algebra was similarly

distributed but slightly more difficult, with 7 items below 0 and the remaining 9 above.

Measurement error was generally quite low, ranging from .05 to .12.

Data fit the model well, with outfit statistics ranging from .61 to 1.67 and centering

relatively close to 1. Of the 48 items, 28 had a value of less than 1, one had a value of exactly 1

(number and operations and algebra, item 14), and the remaining 19 cases had a value greater

than 1. The point measure correlations had low-moderate values, ranging from .1 (geometry,

measurement, and algebra, item 1) to .46 (number and operations, item 11; number and

operations and algebra, item 11). The observed match of the items was generally close to the

expected match. Discrimination ranged from .61 (geometry, measurement, and algebra, item 5)

to 1.27 (number and operations and algebra, item 11).

Grade Six

The NCTM focal points for grade six are: (a) number and operations, (b) algebra, and (c) number and operations and ratios. The sample ranged in size from 2,060-2,083 students per item. Items ranged in difficulty from -3.36 (number and operations and ratios, item 2) to 2.02 (algebra, item 14). Overall, 28 items had a difficulty greater than 0 and 20 items had a difficulty less than 0. Each focal point was reasonably well distributed in difficulty. Algebra was the easiest focal point, with 9 items below 0 and 7 above. Number and operations and ratios was similarly distributed but slightly more difficult, with 8 items below 0 and 8 above. Number and operations was the most difficult focal point, with 3 items below 0 and the remaining 13 above. Measurement error was generally quite low, ranging from .05 to .16.

Data fit the model well, with outfit statistics ranging from .35 to 1.45 and centering relatively close to 1. Of the 48 items, 31 had a value of less than 1 and the remaining 17 cases had a value greater than 1. The point measure correlations had low-moderate values, ranging from .20 (algebra, items 5 and 10) to .53 (algebra, item 15). The observed match of the items was generally close to the expected match. Discrimination ranged from .32 (number and operations and ratios, item 15) to 1.40 (number and operations and ratios, item 13).

Grade Seven

The NCTM focal points for grade seven are: (a) number and operations, algebra, and geometry, (b) measurement, geometry, and algebra, and (c) number and operations and algebra. The sample ranged in size from 1,400-1,428 students per item. Items ranged in difficulty from -2.45 (number and operations and algebra, item 1) to 2.45 (measurement, geometry, and algebra, item 14). Overall, 25 items had a difficulty greater than 0 and 23 items had difficulty less than 0. Each focal point was reasonably well distributed in difficulty. Number and operations, algebra, and geometry was the easiest focal point, with 13 items below 0 and 3 above. Number and

operations and algebra was more difficult, with 6 items below 0 and 10 above. Measurement, geometry, and algebra was the most difficult focal point with 4 items below 0 and the remaining 12 above. Measurement error was generally quite low, ranging from .06 to .11. However, of the 48 items, only one had measurement error greater than .08 (number and operations and algebra, item 1).

Data fit the model well, with outfit statistics ranging from .60 to 1.88 and centering relatively close to 1. Of the 48 items, 25 had a value of less than 1 and the remaining 23 had a value greater than 1. The point measure correlations had low-moderate values, ranging from .09 (measurement, algebra, and geometry, item 11; number and operations and algebra, item 6) to .57 (number and operations and algebra, item 11). The observed match of the items was generally close to the expected match. Discrimination ranged from -.08 (measurement, geometry, and algebra, item 11) to 1.69 (number and operations and algebra, item 11).

Grade eight

The NCTM focal points for grade eight are: (a) algebra, (b) geometry and measurement, and (c) data analysis, number and operations, and algebra. The sample ranged in size from 1,432-1,446 students per item. Items ranged in difficulty from -2.95 (data analysis, number and operations, and algebra, item 2) to 1.73 (algebra, item 15). Overall, 27 items had a difficulty greater than 0 (algebra, item 10) one item had a difficulty of exactly 0, and the remaining 20 had a difficulty less than 0. Each focal point was reasonably well distributed in difficulty. Data analysis, number and operations, and algebra was the easiest focal point, with 9 items below 0 and 7 above. Geometry and measurement was more difficult, with 7 items below 0 and 9 above. Algebra was the most difficult focal point, with 4 items below 0, one item equal to 0, and the remaining 11 above. Measurement error was generally quite low, ranging from .06 to .13.

Data fit the model well, with outfit statistics ranging from .73 to 1.37 and centering relatively close to 1. Of the 48 items, 29 had a value greater than 1, one had a value of exactly 1 (data analysis, number and operations, and algebra, item 6), and the remaining 18 cases had a value greater than 1. The point measure correlations had low-moderate values, ranging from .08 (algebra, item 6) to .52 (algebra, item 4). The observed match of the items was generally close to the expected match. Discrimination ranged from -.06 (algebra, item 6) to 1.61 (algebra, item 4).

Discussion

The IRT analysis indicated that the items functioned well. Outfit statistics were generally strong and centered around 1. Similarly, item difficulty centered around 0 within each grade. Few items had a difficulty exceeding the value of -3 to +3, indicating a strong potential to sort students into groups by ability. Items with a difficulty far exceeding the value of -3 or +3 provide much less information, as either the majority of students respond correctly (item difficulty exceeding -3) or the majority of students respond incorrectly (item difficulty exceeding 3). NCTM focal point standards were roughly evenly distributed in difficulty within grades, but not across focal points. For instance, geometry was the easiest focal point in each grade that it appeared with the exception of grade 8, where geometry was paired in the focal point with measurement and was more difficult than the focal point data analysis, number and operations, and algebra. Finally the point measure correlations were generally low to moderate and the expected and observed scores were very close. In sum, the results of this analysis suggest the items function well and could be used to accurately inform teacher decision-making.

References

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Table 1

Descriptive Statistics from Spring of 2009

				Gender		Ethnicity						
SD 1	Count	Sped	Econ. dis.	Male	Female	AmerInd/AK-Nat.	Asian/Pac-Islander	Black	Latino	White	Multi-ethnic	Decline
Gr1	1314	145 (11%)	.	647 (51%)	667 (51%)	32 (2%)	85 (6%)	40 (3%)	147 (11%)	961 (73%)	.	49 (4%)
Gr2	1296	173 (13%)	.	681 (53%)	615 (47%)	31 (2%)	75 (6%)	49 (4%)	139 (11%)	971 (75%)	.	31 (2%)
Gr3	1280	200 (16%)	554 (43%)	632 (49%)	611 (48%)	20 (2%)	52 (4%)	28 (2%)	109 (9%)	892 (70 %)	110 (9%)	32 (3%)
Gr4	1334	224 (17%)	559 (42%)	659 (49%)	675 (51%)	21 (2%)	69 (5%)	32 (2%)	103 (8%)	956 (72%)	105 (8%)	48 (4%)
Gr5	1211	217 (18%)	495 (41%)	607 (50%)	604 (50%)	35 (3%)	53 (4%)	34 (3%)	79 (7%)	867 (72%)	72 (6%)	71 (6%)
Gr6	1115	175 (16%)	420 (38%)	532 (48%)	583 (52%)	14 (1%)	56 (5%)	32 (3%)	88 (8%)	793 (71%)	85 (8%)	47 (4%)
Gr7	1306	197 (15%)	495 (38%)	661 (51%)	645 (49%)	20 (2%)	60 (5%)	37 (3%)	114 (9%)	894 (69%)	92 (7%)	89 (7%)
Gr8	1359	186 (14%)	479 (35%)	698 (51%)	661 (49%)	22 (2%)	72 (5%)	34 (3%)	86 (6%)	973 (72%)	106 (8%)	66 (5%)
SD 2												
Gr1	.	.	.	.	.	.	.	.	.	.	.	.
Gr2	.	.	.	.	.	.	.	.	.	.	.	.
Gr3	802	165 (21%)	510 (64%)	440 (55%)	362 (45%)	20 (3%)	14 (2%)	15 (2%)	125 (16%)	556 (69%)	58 (7%)	14 (2%)
Gr4	881	175 (20%)	524 (60%)	460 (52%)	421 (48%)	26 (3%)	16 (2%)	15 (2%)	112 (13%)	624 (71%)	82 (9%)	6 (1%)
Gr5	873	162 (19%)	523 (60%)	440 (50%)	433 (50%)	22 (3%)	13 (2%)	12 (1%)	116 (13%)	639 (73%)	65 (7%)	6 (1%)
Gr6	766	132 (17%)	451 (59%)	396 (52%)	370 (48%)	16 (2%)	15 (2%)	9 (1%)	128 (17%)	546 (71%)	39 (5%)	13 (2%)
Gr7	872	147 (17%)	495 (57%)	469 (54%)	403 (46%)	11 (1%)	11 (1%)	22 (3%)	128 (15%)	631 (72%)	51 (6%)	18 (2%)
Gr8	834	127 (15%)	442 (53 %)	419 (50%)	415 (50%)	22 (3%)	15 (2%)	17 (2%)	102 (12%)	625 (75%)	50 (6%)	3 (<1%)

Note. Data not available in SD 1 for grades 1 and 2 on students of economic disadvantage or students of multi-ethnicity. SD 2 did not have demographic data for grades 1 and 2. Raw numbers reported; percentages in parentheses are rounded to the nearest whole percent. Because some students failed to respond not all gender percentages sum to 100%
GR = Grade level
Sped = Special education placement
Econ. Dis = Economically disadvantaged – students eligible for free or reduced lunch
Amer-Ind/AK-Native = American Indian or Alaskan Native
Asian/Pac-Islander = Asian or Pacific Islander

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
numop1	-0.13	923	0.07	0.92	0.89	0.4	68.5	62.6	1.46
numop2	-0.69	923	0.07	0.92	0.87	0.38	71.1	69.8	1.23
numop3	-1.23	923	0.08	0.91	0.81	0.37	79	78.7	1.15
numop4	0.3	923	0.07	0.99	0.99	0.31	63.4	62.3	1.07
numop5	0.67	922	0.07	1.08	1.1	0.18	62.1	65.7	0.66
numop6	-0.4	922	0.07	0.99	0.97	0.29	65.5	65.4	1.04
numop7	-1.18	921	0.08	0.96	0.92	0.3	77.7	78	1.07
numop8	0.24	920	0.07	1.01	1.02	0.27	61.5	62	0.91
numop9	0.25	920	0.07	0.96	0.95	0.36	66.1	62	1.26
numop10	-0.12	920	0.07	0.96	0.94	0.34	64	62.6	1.22
numop11	-0.19	920	0.07	0.96	0.95	0.34	65.5	63.1	1.2
numop12	0.87	919	0.07	0.99	1	0.31	69.3	68.4	1.02
numop13	0.61	919	0.07	0.94	0.93	0.38	70.2	64.9	1.25
numop14	0.5	919	0.07	0.99	0.98	0.32	65.1	63.8	1.07
numop15	1.57	919	0.08	1.09	1.2	0.13	77.9	78.8	0.85
numop16	-0.08	919	0.07	0.91	0.88	0.42	68.8	62.3	1.55
geo1	-0.75	929	0.07	0.97	0.96	0.3	71.2	70.8	1.08
geo2	-1.35	929	0.09	0.92	0.84	0.35	80.7	80.6	1.11
geo3	-2.96	929	0.15	0.94	0.63	0.26	95.2	95.2	1.05
geo4	-1.92	928	0.1	0.94	0.78	0.3	87.7	87.7	1.07
geo5	1.01	927	0.07	1.13	1.17	0.11	66.8	70.5	0.66
geo6	-1.52	926	0.09	0.95	0.9	0.29	83.2	83	1.06
geo7	-0.18	926	0.07	0.95	0.94	0.35	66.7	63.1	1.25
geo8	-1.4	926	0.09	0.92	0.82	0.35	81.3	81.4	1.11
geo9	-0.05	926	0.07	0.91	0.89	0.42	69.3	62.2	1.54
geo10	-1.56	926	0.09	0.95	0.87	0.29	83.7	83.5	1.07
geo11	0.78	925	0.07	1.14	1.18	0.09	62.4	67	0.49
geo12	0.57	925	0.07	1.08	1.09	0.19	58.9	64.5	0.64
geo13	0.1	925	0.07	0.99	1.05	0.3	63.7	61.8	1.04
geo14	-0.32	925	0.07	0.98	1.04	0.3	66.3	64.5	1.06
geo15	-1.42	925	0.09	0.96	0.93	0.28	82.1	81.7	1.05
geo16	-1.54	925	0.09	0.98	0.92	0.25	83.5	83.3	1.03
numopalg1	-1.4	929	0.09	1	0.96	0.23	81.2	81.2	1.01
numopalg2	1.18	929	0.08	1.02	1.07	0.25	74.2	73.2	0.93
numopalg3	0	929	0.07	0.92	0.9	0.4	68.4	62	1.48
numopalg4	0.32	929	0.07	1.02	1.03	0.26	60.7	62.5	0.85
numopalg5	0.9	929	0.07	1.13	1.16	0.11	64	69	0.62
numopalg6	1.04	929	0.07	1.11	1.16	0.13	69.5	71	0.71
numopalg7	0.83	929	0.07	1.02	1.03	0.27	68.4	67.9	0.94
numopalg8	1.04	929	0.07	1.05	1.07	0.22	71.7	71	0.87
numopalg9	1.11	929	0.08	0.93	0.93	0.39	75.1	72.2	1.14
numopalg10	0.88	929	0.07	1.03	1.05	0.26	68.9	68.6	0.91
numopalg11	1.69	929	0.09	1.12	1.34	0.06	79.7	80.5	0.8
numopalg12	0.82	929	0.07	1.06	1.07	0.22	66.2	67.8	0.82
numopalg13	0.63	929	0.07	1.04	1.05	0.25	64.8	65.2	0.84
numopalg14	0.56	929	0.07	1.13	1.15	0.11	57.2	64.5	0.4
numopalg15	1.33	928	0.08	1.06	1.09	0.21	74.7	75.5	0.89
numopalg16	0.61	929	0.07	0.98	0.99	0.32	67.8	65	1.07

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
numop1	-2.2	307	0.19	0.95	0.75	0.3	89.6	89.6	1.06
numop2	-1.59	306	0.16	0.93	0.79	0.36	82.7	82.7	1.11
numop3	-0.65	306	0.13	0.9	0.85	0.43	69.3	68.2	1.31
numop4	-0.65	306	0.13	0.92	0.87	0.41	71.9	68.2	1.27
numop5	0.78	306	0.13	1.2	1.27	0.01	60.1	67.9	0.36
numop6	-0.45	306	0.12	0.93	0.91	0.39	68.3	65.6	1.26
numop7	0.54	305	0.12	1.06	1.09	0.21	60	65.2	0.72
numop8	0.71	305	0.12	0.98	0.96	0.34	67.5	67	1.09
numop9	0.17	305	0.12	1.09	1.12	0.17	57	62.9	0.47
numop10	0.07	305	0.12	1.02	1.02	0.27	59.7	62.8	0.88
numop11	0.06	305	0.12	1.09	1.1	0.18	57.4	62.8	0.48
numop12	0.83	305	0.13	1.04	1.04	0.25	65.2	68.6	0.88
numop13	1.27	305	0.14	0.99	1.02	0.3	75.7	75.1	1.01
numop14	1	305	0.13	1.16	1.25	0.06	67.2	71	0.59
numop15	0.98	305	0.13	1.08	1.13	0.17	67.9	70.8	0.79
numop16	-0.37	305	0.12	0.92	0.89	0.41	69.2	64.8	1.36
geo1	-1.54	239	0.18	0.98	0.98	0.23	82.8	82.8	1.01
geo2	-1.57	239	0.18	0.96	0.9	0.28	83.3	83.2	1.05
geo3	-1.52	237	0.18	0.95	0.84	0.3	82.7	82.7	1.07
geo4	-1.01	237	0.16	0.91	0.82	0.4	76.4	74.8	1.2
geo5	2.13	237	0.19	1.04	1.14	0.23	86.5	85.9	0.95
geo6	-0.65	237	0.15	0.89	0.84	0.43	75.5	69.2	1.33
geo7	-0.31	237	0.14	0.95	0.91	0.37	67.5	64.8	1.25
geo8	-0.89	237	0.15	1	1.07	0.24	73	72.9	0.97
geo9	0.3	237	0.14	0.96	0.94	0.37	67.5	63.3	1.2
geo10	0.41	237	0.14	1.05	1.05	0.26	60.3	64.1	0.76
geo11	-0.46	237	0.14	1.01	1	0.28	63.3	66.7	0.98
geo12	0.91	236	0.15	1.05	1.09	0.25	69.9	69.5	0.84
geo13	0.05	236	0.14	1	0.99	0.31	64	62.8	1
geo14	1.06	236	0.15	1.12	1.18	0.16	69.1	71.7	0.71
geo15	0.41	236	0.14	1.12	1.16	0.15	56.8	64	0.38
geo16	-1	236	0.16	0.87	0.79	0.44	76.3	74.7	1.26
numopalg1	0.05	328	0.12	0.96	0.94	0.39	65.5	64	1.2
numopalg2	-0.49	328	0.12	0.97	0.95	0.35	70.7	67.7	1.11
numopalg3	0.28	328	0.12	1	0.97	0.35	62.8	64.3	1.03
numopalg4	0.66	327	0.12	0.96	0.96	0.39	69.4	66.8	1.13
numopalg5	-0.85	327	0.13	0.9	0.8	0.42	74.6	72.6	1.24
numopalg6	-0.15	327	0.12	0.93	0.89	0.42	67.3	64.6	1.34
numopalg7	1	327	0.13	1.07	1.09	0.26	68.5	70.8	0.82
numopalg8	0.91	326	0.12	0.97	0.99	0.38	70.9	69.5	1.07
numopalg9	0.95	326	0.12	1.12	1.19	0.19	69	70.1	0.66
numopalg10	-0.09	326	0.12	0.9	0.86	0.46	70.2	64.3	1.48
numopalg11	1.47	326	0.14	1.09	1.18	0.22	75.5	77	0.84
numopalg12	0.76	326	0.12	1.02	1.02	0.32	66.3	67.8	0.93
numopalg13	-1.93	326	0.17	0.95	1.26	0.26	87.7	87.7	1.04
numopalg14	-0.74	326	0.13	0.94	0.86	0.38	69.3	71	1.17
numopalg15	1.57	326	0.14	1.14	1.22	0.16	75.5	78.3	0.79
numopalg16	-0.19	326	0.12	0.93	0.88	0.42	66.9	64.8	1.33

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
numop1	-2.9	2053	0.13	0.99	0.99	0.15	97	97	1.01
numop2	-0.67	2053	0.06	0.97	0.87	0.34	80.2	80.1	1.06
numop3	0.28	2053	0.05	0.93	0.88	0.43	70.5	67.9	1.24
numop4	-0.48	2053	0.06	0.95	0.89	0.37	77.8	77.6	1.09
numop5	3.15	2053	0.07	1.08	1.73	0.1	88.4	88.2	0.86
numop6	0.09	2053	0.05	0.95	0.91	0.39	70.7	70	1.14
numop7	-0.11	2053	0.05	0.91	0.89	0.42	74.7	72.4	1.19
numop8	0.68	2053	0.05	0.98	0.97	0.38	66.3	65.4	1.08
numop9	0	2053	0.05	0.94	0.89	0.4	71.1	71	1.15
numop10	0.34	2053	0.05	0.94	0.9	0.42	68.8	67.4	1.21
numop11	0.86	2053	0.05	1.03	1.03	0.33	64	65.1	0.89
numop12	1.39	2053	0.05	1.18	1.24	0.16	60.1	67.6	0.41
numop13	1.89	2052	0.05	1.15	1.27	0.16	69.5	73.2	0.66
numop14	2.53	2053	0.06	1.09	1.38	0.18	82.1	81.5	0.84
numop15	2.09	2053	0.05	1.13	1.37	0.16	75.8	75.9	0.72
numop16	-0.44	2051	0.05	0.99	1.09	0.29	78	77	0.98
geo1	-2.72	2063	0.12	0.98	0.76	0.19	96.5	96.5	1.02
geo2	-3.71	2063	0.19	0.98	0.81	0.14	98.6	98.6	1.02
geo3	-4.05	2063	0.23	0.97	0.62	0.14	99	99	1.03
geo4	-3.13	2062	0.15	0.95	0.56	0.22	97.6	97.6	1.05
geo5	0.76	2061	0.05	1.16	1.23	0.17	57.8	65.2	0.31
geo6	-1.19	2062	0.07	0.93	0.89	0.32	86.7	86.5	1.06
geo7	-1.35	2062	0.07	0.97	0.85	0.29	88.3	88.2	1.04
geo8	-2.99	2062	0.14	1	1.53	0.09	97.3	97.3	0.99
geo9	-0.22	2062	0.05	0.95	0.9	0.38	75.4	74	1.11
geo10	-0.7	2061	0.06	1.04	1.07	0.24	80.2	80.6	0.95
geo11	0.35	2062	0.05	0.91	0.89	0.45	71.8	67.3	1.31
geo12	-0.38	2062	0.05	1.02	1.03	0.29	74.9	76.2	0.97
geo13	0.87	2062	0.05	0.98	0.97	0.38	66.7	65.2	1.08
geo14	1.74	2062	0.05	1.05	1.13	0.28	70.5	71.3	0.85
geo15	1.59	2062	0.05	1.1	1.17	0.24	65.8	69.6	0.7
geo16	-1.57	2062	0.08	0.9	0.71	0.35	90.1	90.1	1.09
numopalg1	-2.54	2053	0.11	1	0.99	0.15	95.9	95.9	1
numopalg2	-0.25	2053	0.05	0.98	1.02	0.33	75	74.4	1.02
numopalg3	-0.69	2053	0.06	0.84	0.72	0.48	82.1	80.5	1.22
numopalg4	-0.38	2053	0.05	0.9	0.87	0.42	78.2	76.2	1.17
numopalg5	1.6	2052	0.05	1.24	1.33	0.09	60.6	69.7	0.36
numopalg6	0.2	2052	0.05	1.03	1.03	0.31	66.3	68.8	0.92
numopalg7	0.16	2052	0.05	0.85	0.8	0.51	75.6	69.3	1.41
numopalg8	1.55	2052	0.05	0.91	0.9	0.46	74.5	69.2	1.25
numopalg9	1.18	2052	0.05	0.93	0.92	0.44	69.9	66	1.26
numopalg10	1.27	2052	0.05	0.91	0.9	0.46	71.6	66.7	1.3
numopalg11	1.12	2052	0.05	0.91	0.89	0.47	71.4	65.8	1.35
numopalg12	0.74	2049	0.05	1.03	1.03	0.32	62.9	65.2	0.87
numopalg13	1.12	2047	0.05	0.95	0.95	0.42	69.4	65.7	1.18
numopalg14	1.23	2049	0.05	1.16	1.25	0.18	58.6	66.3	0.38
numopalg15	1.66	2048	0.05	1.05	1.13	0.28	70.3	70.3	0.83
numopalg16	0.01	2048	0.05	0.95	0.89	0.4	71.5	70.9	1.14

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
numop1	-2.38	1212	0.16	0.98	0.99	0.17	96.4	96.4	1.01
numop2	-1.66	1212	0.12	0.96	0.85	0.25	93.2	93.2	1.03
numop3	-0.57	1212	0.08	1.13	1.52	0.15	83.7	83.8	0.8
numop4	-0.65	1212	0.08	0.93	0.77	0.37	84.8	84.7	1.09
numop5	2.74	1212	0.07	1	1.19	0.4	80.8	78.5	0.95
numop6	0.08	1212	0.07	0.91	0.85	0.44	76.9	76	1.16
numop7	1.29	1212	0.06	1.46	1.65	0.05	48.3	68.5	-0.39
numop8	0.89	1211	0.06	0.85	0.8	0.54	76.3	69.2	1.41
numop9	0.11	1211	0.07	1.11	1.15	0.28	72.4	75.7	0.81
numop10	0.74	1212	0.07	1.01	1	0.4	69.7	70	0.99
numop11	0.83	1210	0.07	0.84	0.76	0.55	76.6	69.5	1.45
numop12	0.75	1210	0.07	0.84	0.77	0.54	76.4	70	1.42
numop13	1.22	1210	0.06	0.99	0.97	0.44	70.3	68.5	1.04
numop14	1.3	1209	0.06	0.97	0.94	0.46	71.2	68.5	1.09
numop15	1.27	1210	0.06	0.9	0.87	0.52	74.1	68.5	1.31
numop16	0.31	1209	0.07	0.86	0.74	0.51	77.4	73.6	1.31
mda1	-4.6	1213	0.45	0.98	0.41	0.1	99.6	99.6	1.03
mda2	-2.17	1212	0.15	0.95	1.05	0.2	95.7	95.7	1.02
mda3	-2.54	1212	0.17	0.98	1.07	0.16	96.9	96.9	1.01
mda4	-2.48	1212	0.17	0.98	1.02	0.16	96.8	96.8	1
mda5	3.75	1212	0.09	1.07	1.91	0.26	88.6	88.3	0.86
mda6	-0.74	1212	0.09	0.98	0.99	0.3	85.6	85.6	1.01
mda7	-1.77	1211	0.12	1	0.97	0.2	93.8	93.8	1
mda8	-1.1	1211	0.1	0.98	0.95	0.28	89	89.1	1.02
mda9	-2.11	1211	0.14	0.99	1.44	0.17	95.4	95.4	0.99
mda10	-0.26	1211	0.08	1.06	1.07	0.28	78.8	80.1	0.92
mda11	0.39	1211	0.07	1.06	1.07	0.33	71	72.8	0.86
mda12	1.02	1211	0.06	1.07	1.09	0.37	66.6	68.8	0.8
mda13	0.86	1211	0.06	0.82	0.76	0.56	77.9	69.4	1.5
mda14	0.5	1211	0.07	0.79	0.7	0.56	80.2	71.8	1.47
mda15	1.55	1211	0.06	1.11	1.14	0.35	65	69	0.69
mda16	-1.96	1211	0.13	0.92	0.71	0.28	94.8	94.8	1.07
numopalg1	-1.15	1207	0.1	0.93	0.77	0.33	89.7	89.6	1.07
numopalg2	-0.83	1207	0.09	0.95	0.81	0.34	86.8	86.6	1.06
numopalg3	-1.17	1206	0.1	0.86	0.55	0.39	89.8	89.7	1.14
numopalg4	-0.75	1206	0.09	1.01	0.99	0.29	85.8	85.7	1
numopalg5	2.25	1206	0.07	1.38	1.66	0.11	62.8	73.5	0.2
numopalg6	0.38	1206	0.07	1.07	1.1	0.33	72.3	72.9	0.85
numopalg7	0.68	1206	0.07	0.89	0.83	0.5	75.1	70.4	1.3
numopalg8	0.11	1206	0.07	1.06	1.2	0.31	74.8	75.8	0.88
numopalg9	0.55	1206	0.07	0.95	0.92	0.44	73.3	71.4	1.12
numopalg10	0.22	1205	0.07	1	1.09	0.36	75.9	74.5	0.97
numopalg11	0.69	1206	0.07	1.2	1.34	0.23	63.6	70.3	0.47
numopalg12	1.02	1206	0.06	0.99	0.97	0.43	68.3	68.8	1.03
numopalg13	0.69	1206	0.07	0.97	0.93	0.43	70.3	70.3	1.09
numopalg14	1.65	1206	0.06	1.12	1.16	0.34	64.7	69.4	0.67
numopalg15	1.38	1206	0.06	0.98	0.96	0.45	69.3	68.6	1.07
numopalg16	-0.31	1206	0.08	0.88	0.71	0.44	81.5	80.8	1.17

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
numop1	-1.97	2099	0.09	0.94	0.99	0.25	93.9	93.9	1.05
numop2	-1.99	2098	0.09	0.94	0.61	0.27	94	94	1.06
numop3	-1.4	2099	0.08	0.95	0.86	0.28	90	90	1.05
numop4	-1.57	2099	0.08	0.91	0.74	0.31	91.3	91.3	1.07
numop5	2.46	2099	0.06	1.08	1.41	0.29	79.1	78.5	0.81
numop6	-0.45	2098	0.06	0.89	0.77	0.42	79.8	79.4	1.17
numop7	0.06	2098	0.05	0.92	0.83	0.44	74.6	72.9	1.2
numop8	-0.37	2096	0.06	0.93	0.85	0.39	79.5	78.3	1.12
numop9	-0.35	2096	0.06	0.93	0.86	0.39	79.4	78.1	1.12
numop10	0.7	2096	0.05	0.96	0.95	0.43	69	67.5	1.12
numop11	0.57	2095	0.05	0.92	0.86	0.46	70.9	68.2	1.25
numop12	1.35	2094	0.05	1.05	1.05	0.37	66.7	68.2	0.86
numop13	0.99	2094	0.05	1.12	1.11	0.3	60.1	67	0.63
numop14	2.27	2094	0.05	1.1	1.3	0.3	75.3	76.5	0.79
numop15	1.8	2094	0.05	1.02	1.04	0.4	71.1	71.8	0.95
numop16	-0.19	2094	0.05	0.94	0.85	0.39	77.3	76	1.12
gma1	-2.59	2101	0.12	1.01	1.37	0.1	96.5	96.5	0.98
gma2	-1.72	2101	0.08	0.96	0.86	0.25	92.3	92.3	1.04
gma3	-1.25	2100	0.07	1.06	1.67	0.14	88.5	88.6	0.91
gma4	-1.63	2101	0.08	0.98	0.84	0.24	91.7	91.7	1.03
gma5	2.61	2101	0.06	1.28	1.56	0.14	74.7	80.1	0.61
gma6	-1.8	2100	0.09	1.01	1.08	0.18	92.9	92.9	0.99
gma7	-0.33	2100	0.06	1.1	1.2	0.22	76	77.8	0.83
gma8	0.17	2100	0.05	1.02	0.96	0.35	70.5	71.6	0.99
gma9	-0.07	2100	0.05	0.99	0.92	0.36	74.6	74.5	1.04
gma10	0.36	2100	0.05	1.04	1.11	0.32	69.6	69.7	0.85
gma11	0.91	2100	0.05	1.05	1.07	0.35	64.7	67	0.83
gma12	-0.77	2100	0.06	1.04	1.05	0.25	83.5	83.5	0.96
gma13	0.54	2100	0.05	1.1	1.16	0.28	65.2	68.4	0.68
gma14	0.92	2100	0.05	1.05	1.06	0.35	63.4	67	0.82
gma15	1.03	2100	0.05	1.05	1.05	0.36	65	67.1	0.83
gma16	-1.03	2099	0.07	1	1.04	0.25	86.3	86.4	0.99
numopalg1	-0.1	2088	0.05	1.12	1.34	0.21	73.4	74.9	0.73
numopalg2	-1.34	2087	0.07	0.91	0.77	0.33	89.4	89.4	1.08
numopalg3	-0.5	2087	0.06	0.88	0.72	0.43	80.7	80	1.18
numopalg4	0.52	2085	0.05	0.98	0.93	0.4	69.1	68.5	1.07
numopalg5	1.01	2085	0.05	0.99	0.99	0.42	68.1	67	1.04
numopalg6	-0.04	2084	0.05	0.93	0.84	0.42	75	74.1	1.16
numopalg7	-0.21	2082	0.05	0.92	0.92	0.4	78.3	76.3	1.13
numopalg8	-0.94	2081	0.07	0.95	0.95	0.31	85.7	85.5	1.05
numopalg9	-0.03	2079	0.05	0.97	0.92	0.38	74.8	74	1.08
numopalg10	0.3	2078	0.05	0.95	0.94	0.41	72.6	70.4	1.13
numopalg11	0.35	2078	0.05	0.9	0.86	0.46	73	69.9	1.27
numopalg12	0.72	2077	0.05	0.96	0.95	0.43	69.2	67.4	1.12
numopalg13	1.05	2077	0.05	0.95	0.94	0.45	70.2	67.1	1.17
numopalg14	0.68	2077	0.05	1.01	1	0.38	67.1	67.6	0.96
numopalg15	0.94	2076	0.05	1.05	1.09	0.36	64.9	67.1	0.82
numopalg16	0.36	2077	0.05	1.02	0.98	0.36	67.1	69.8	0.97

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
numop1	0.08	2081	0.05	1.03	1.01	0.33	68.7	71	0.94
numop2	-0.01	2081	0.05	1.07	1.08	0.29	70.3	72.1	0.84
numop3	-0.26	2080	0.05	0.9	0.83	0.42	78.6	75.2	1.19
numop4	0.46	2081	0.05	1.02	0.99	0.37	67.3	67.7	0.96
numop5	1.64	2081	0.05	1.24	1.4	0.23	64.4	71.8	0.42
numop6	0.87	2081	0.05	1.02	0.98	0.4	65.3	66.8	0.97
numop7	1.26	2080	0.05	1.07	1.13	0.36	67	68.5	0.76
numop8	0.62	2078	0.05	1.1	1.12	0.31	61.9	67	0.68
numop9	0.47	2080	0.05	1.14	1.18	0.27	61.9	67.7	0.56
numop10	0.83	2079	0.05	1.17	1.23	0.26	59.3	66.8	0.38
numop11	0.56	2077	0.05	1.03	1.06	0.36	65.9	67.2	0.89
numop12	1.31	2077	0.05	0.94	0.95	0.47	72.3	68.9	1.15
numop13	1.67	2077	0.05	1.25	1.45	0.21	66.3	72.1	0.39
numop14	1.69	2075	0.05	0.94	0.98	0.48	76.5	72.3	1.11
numop15	1.73	2075	0.05	1.17	1.31	0.29	68.7	72.7	0.62
numop16	-0.02	2075	0.05	0.97	1.02	0.37	72.1	72.2	1.07
alg1	-2.07	2083	0.09	0.91	0.61	0.28	93.7	93.7	1.08
alg2	-1.93	2083	0.09	0.88	0.53	0.32	92.9	92.9	1.1
alg3	-1.45	2083	0.07	0.87	0.61	0.36	89.4	89.3	1.13
alg4	-1.54	2083	0.08	0.94	0.86	0.29	90	90	1.06
alg5	1.84	2083	0.05	1.28	1.4	0.2	66.4	73.9	0.44
alg6	-1.24	2083	0.07	0.88	0.66	0.37	87.5	87.3	1.13
alg7	-0.74	2083	0.06	0.95	0.87	0.34	81.8	81.5	1.07
alg8	-1.06	2083	0.06	0.89	0.77	0.37	85.7	85.4	1.12
alg9	0.08	2083	0.05	0.96	0.88	0.4	71.1	71	1.14
alg10	-3.15	2083	0.15	0.93	0.6	0.2	97.7	97.7	1.05
alg11	0.99	2082	0.05	0.92	0.89	0.48	71.2	67.1	1.28
alg12	1.24	2083	0.05	0.89	0.85	0.51	73.2	68.4	1.32
alg13	0.95	2082	0.05	0.93	0.91	0.47	71.6	67	1.25
alg14	2.02	2080	0.05	0.97	1.07	0.45	77.7	75.8	1.01
alg15	1.83	2080	0.05	0.88	0.9	0.53	79	73.8	1.21
alg16	-0.94	2079	0.06	0.86	0.64	0.41	84.2	84	1.18
numoprat1	-1.55	2071	0.08	0.88	0.59	0.35	90.2	90.1	1.12
numoprat2	-3.36	2070	0.16	0.92	0.35	0.22	98.1	98.1	1.07
numoprat3	-2.43	2070	0.11	0.88	0.41	0.3	95.4	95.4	1.1
numoprat4	-1.47	2069	0.07	0.95	0.89	0.28	89.5	89.4	1.05
numoprat5	0.73	2067	0.05	1.11	1.25	0.29	62.6	66.8	0.55
numoprat6	-0.6	2067	0.06	0.98	1.13	0.31	80.2	79.7	1.01
numoprat7	-2.22	2067	0.1	0.95	0.74	0.23	94.4	94.5	1.04
numoprat8	-0.39	2067	0.06	0.98	0.99	0.33	77.1	76.9	1.02
numoprat9	0.57	2065	0.05	0.98	0.97	0.4	68.2	67.2	1.06
numoprat10	0.26	2065	0.05	1.02	1.01	0.35	66.7	69.2	0.95
numoprat11	0.94	2062	0.05	0.99	0.98	0.42	68.6	66.9	1.04
numoprat12	0.56	2061	0.05	0.99	0.95	0.4	67.2	67.3	1.04
numoprat13	0.41	2061	0.05	0.88	0.8	0.49	73.4	68.1	1.4
numoprat14	1.09	2060	0.05	0.96	0.95	0.45	70.8	67.5	1.13
numoprat15	0.72	2060	0.05	1.18	1.33	0.23	59.5	66.8	0.32
numoprat16	-0.98	2060	0.06	0.87	0.66	0.39	85.2	84.5	1.16

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
noag1	-1.66	1420	0.08	0.92	0.8	0.35	85.8	86.2	1.08
noag2	-1.81	1420	0.08	0.87	0.63	0.4	88.1	87.7	1.13
noag3	-0.73	1420	0.06	1.01	1.18	0.31	74.9	74.8	0.95
noag4	-1.48	1420	0.08	0.87	0.71	0.42	85.1	84.3	1.15
noag5	0.29	1418	0.06	1	1.08	0.38	68.8	66.7	0.98
noag6	-1.18	1420	0.07	0.8	0.64	0.51	82.4	80.6	1.27
noag7	-1.8	1420	0.08	0.86	0.6	0.42	88	87.6	1.15
noag8	-0.82	1420	0.07	0.9	0.83	0.43	77.9	75.9	1.17
noag9	-0.55	1418	0.06	0.79	0.7	0.56	78.9	72.6	1.45
noag10	-1.11	1418	0.07	0.92	0.76	0.41	79.4	79.7	1.14
noag11	-0.4	1414	0.06	0.89	0.87	0.47	75.7	71	1.26
noag12	-0.05	1416	0.06	0.85	0.82	0.52	74.9	68.1	1.45
noag13	0.47	1416	0.06	1.04	1.04	0.35	64.6	66.6	0.85
noag14	-0.22	1414	0.06	0.95	0.92	0.42	70.8	69.4	1.15
noag15	0.36	1416	0.06	0.93	0.92	0.45	71.4	66.6	1.24
noag16	-0.5	1416	0.06	0.95	0.94	0.4	73.8	72.1	1.11
mga1	-1.08	1428	0.07	0.91	0.87	0.4	80.4	79.2	1.13
mga2	-0.63	1427	0.06	1.17	1.33	0.16	68.3	73.5	0.63
mga3	-0.29	1427	0.06	0.97	0.92	0.4	70.7	70	1.09
mga4	0.36	1427	0.06	1.07	1.06	0.33	61.7	66.7	0.78
mga5	1.99	1427	0.07	1.1	1.29	0.23	79.2	80.4	0.83
mga6	-0.27	1427	0.06	1.03	1.02	0.34	68.1	69.8	0.94
mga7	1.03	1427	0.06	1.12	1.16	0.27	64	69.1	0.66
mga8	0.84	1427	0.06	1.06	1.11	0.33	66	67.8	0.79
mga9	0.15	1427	0.06	0.94	0.94	0.43	70.2	67.2	1.18
mga10	0.32	1427	0.06	1.01	1.02	0.37	68.2	66.7	0.95
mga11	0.6	1427	0.06	1.31	1.42	0.09	50.3	66.8	-0.08
mga12	1.42	1427	0.06	1.14	1.31	0.22	71.3	73.2	0.67
mga13	1.35	1427	0.06	1.14	1.27	0.23	70.5	72.3	0.65
mga14	2.45	1427	0.08	1.14	1.81	0.12	85.3	85.6	0.78
mga15	1.85	1427	0.07	1.03	1.11	0.32	78.2	78.6	0.93
mga16	0.23	1427	0.06	1.11	1.14	0.27	61	66.9	0.6
numopalg1	-2.45	1408	0.11	0.96	0.92	0.25	92.8	92.8	1.03
numopalg2	-1.13	1408	0.07	0.9	0.8	0.42	81.9	80	1.15
numopalg3	-0.54	1408	0.06	0.85	0.77	0.5	76.9	72.6	1.32
numopalg4	-0.34	1406	0.06	0.93	0.87	0.43	70.7	70.5	1.19
numopalg5	-0.97	1404	0.07	1	0.95	0.33	78.6	77.9	1.01
numopalg6	2.05	1404	0.07	1.18	1.88	0.09	80.5	81.1	0.66
numopalg7	0.41	1404	0.06	1.03	1.03	0.36	65	66.5	0.88
numopalg8	-0.4	1404	0.06	0.94	0.87	0.42	71.9	71.1	1.16
numopalg9	0.87	1404	0.06	1.04	1.09	0.34	68	67.9	0.84
numopalg10	0.07	1402	0.06	0.85	0.8	0.53	74.6	67.5	1.51
numopalg11	0.26	1404	0.06	0.81	0.76	0.57	76.9	66.8	1.69
numopalg12	0.61	1402	0.06	1.06	1.06	0.33	63.7	66.8	0.8
numopalg13	1.61	1402	0.07	1.02	1.23	0.31	77.9	75.5	0.9
numopalg14	0.42	1402	0.06	1.04	1.04	0.35	64.9	66.5	0.86
numopalg15	0.26	1402	0.06	1.16	1.18	0.23	59.1	66.8	0.44
numopalg16	0.15	1400	0.06	1.05	1.03	0.34	63.1	67.1	0.84

NAME	MEASURE	COUNT	ERROR	IN.MSQ	OUT.MSQ	PTME	OBSMATCH	EXPMATCH	DISCRIM
alg1	-1.47	1446	0.07	0.94	0.77	0.33	84.4	84.4	1.09
alg2	-0.4	1446	0.06	0.89	0.79	0.46	70.2	69.1	1.34
alg3	-0.29	1446	0.06	0.93	0.91	0.41	69.1	67.8	1.21
alg4	0.24	1446	0.06	0.86	0.82	0.52	73.3	65	1.61
alg5	1.37	1446	0.06	1.09	1.14	0.26	71.4	73.4	0.82
alg6	0.45	1446	0.06	1.26	1.3	0.08	49.7	65.4	-0.06
alg7	0.1	1446	0.06	0.96	0.95	0.39	65.6	65.2	1.17
alg8	1.36	1446	0.06	1.13	1.21	0.22	70.3	73.2	0.73
alg9	-0.19	1446	0.06	0.98	0.96	0.36	68.2	66.8	1.08
alg10	0	1446	0.06	0.94	0.92	0.41	69.6	65.5	1.23
alg11	1.12	1446	0.06	1.19	1.28	0.15	63.3	70.5	0.51
alg12	1.01	1446	0.06	1.23	1.31	0.11	61.3	69.3	0.36
alg13	1.41	1446	0.06	1.07	1.12	0.28	73.7	73.8	0.86
alg14	1.34	1444	0.06	1.12	1.21	0.22	70.8	73	0.73
alg15	1.73	1446	0.07	1.19	1.37	0.12	75	77.7	0.69
alg16	0.15	1446	0.06	0.98	0.95	0.38	63.7	65	1.11
geomsmt1	-2.26	1440	0.1	0.96	0.79	0.24	91.9	91.9	1.04
geomsmt2	-1.46	1440	0.07	0.95	0.8	0.31	84.2	84.2	1.07
geomsmt3	-0.93	1440	0.07	0.94	0.83	0.37	76.3	76.7	1.13
geomsmt4	-0.04	1440	0.06	0.96	0.93	0.39	67.1	65.8	1.16
geomsmt5	0.92	1438	0.06	1.12	1.15	0.24	63.8	68.5	0.64
geomsmt6	-0.02	1440	0.06	0.95	0.94	0.4	69.5	65.7	1.18
geomsmt7	-0.21	1440	0.06	0.95	0.91	0.39	69.2	67	1.18
geomsmt8	0.06	1440	0.06	0.93	0.88	0.43	67.7	65.3	1.31
geomsmt9	0.54	1436	0.06	1.08	1.1	0.28	60.9	65.8	0.68
geomsmt10	1.02	1434	0.06	1.03	1.05	0.33	69.7	69.5	0.91
geomsmt11	0.3	1434	0.06	0.96	0.95	0.41	66.9	65	1.18
geomsmt12	0.98	1434	0.06	1.01	1.03	0.36	69	69.1	0.96
geomsmt13	0.3	1432	0.06	1.11	1.13	0.24	57.6	65.1	0.55
geomsmt14	1.18	1432	0.06	1.08	1.14	0.27	69.1	71.2	0.79
geomsmt15	0.56	1432	0.06	1.03	1.02	0.34	63.5	65.8	0.89
geomsmt16	-0.05	1432	0.06	1.01	1.04	0.33	65.2	65.7	0.97
danoa1	-1.81	1444	0.08	0.96	0.88	0.27	88.1	88.1	1.04
danoa2	-2.95	1444	0.13	0.97	0.73	0.19	95.7	95.7	1.03
danoa3	-1.84	1442	0.08	0.95	0.85	0.27	88.4	88.4	1.05
danoa4	-0.79	1444	0.06	0.93	0.9	0.37	76	74.7	1.13
danoa5	0.53	1440	0.06	0.9	0.89	0.47	73.2	65.7	1.39
danoa6	-0.17	1442	0.06	1.01	1	0.33	66.4	66.7	0.98
danoa7	0.17	1442	0.06	0.93	0.9	0.43	68	65	1.29
danoa8	-1.18	1442	0.07	1.03	1.1	0.22	80.4	80.4	0.95
danoa9	-0.77	1442	0.06	0.93	0.9	0.38	75.7	74.4	1.14
danoa10	0.26	1440	0.06	0.91	0.91	0.45	71.7	65	1.35
danoa11	0.05	1440	0.06	0.98	0.97	0.37	65.8	65.3	1.09
danoa12	-0.12	1438	0.06	0.94	0.92	0.4	67.9	66.3	1.21
danoa13	0.21	1438	0.06	0.86	0.82	0.51	71.9	65	1.58
danoa14	0.66	1440	0.06	1	1.03	0.36	67	66.5	0.98
danoa15	0.78	1440	0.06	0.93	0.92	0.45	71.3	67.3	1.24
danoa16	-1.81	1440	0.08	0.93	0.76	0.32	88.1	88.1	1.08