Internal Consistency of the easyCBM©

CCSS Math Measures:

Grades K-8

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Abstract

This technical report documents findings from a study of the internal consistency and split-half reliability of the easyCBM© CCSS Math measures, grades K-8. Data, drawn from an extant data set gathered in School Year 2013-2014, include scores from over 130,000 students' fall and winter benchmark assessments. Findings suggest that the easyCBM© CCSS Math measures are internally consistent, with a median Cronbach's alpha of .90, and a median split-half reliability of .80 (first half) and .86 (second half) across all 18 measures analyzed.

Internal Consistency of the easyCBM© CCSS Math Measures, Grades K-8

Mathematics measures specifically written to assess students' mastery of the

Common Core State Standards (CCSS) were added to the easyCBM© benchmarking and

progress monitoring system in 2014, as part of a larger effort to expand the reading and

mathematics assessments available on the system. Detailed information about the

development process can be found in a series of technical reports written by Saven, Irvin,

Park, Alonzo, Anderson, and Tindal (2013a, 2013b), Irvin, Saven, Alonzo, Park, Anderson

and Tindal (2013a, 2013b), Saven, Irvin, Park, Alonzo, Anderson, and Tindal (2013a,

2013b), and Anderson, Alonzo, and Tindal (2013). All easyCBM© CCSS math items were

written by teachers and district mathematics specialists, under the guidance of experienced

assessment developers at the University of Oregon. All 13 test forms at each grade level

were written to be of equivalent difficulty. In the current study, we used extant data from

the easyCBM© database to analyze the internal consistency and split-half reliability of the

easyCBM© CCSS measures across all grades where they are offered.

Methods

Participants

The study was conducted using values from the fall and winter 2013-2014 CCSS

math benchmark assessments. The fall benchmark was taken by 9,360 kindergarteners;

18,911 grade 1 students; 20,910 grade 2 students; 18,356 grade 3 students; 18,229 grade 4

students; 18,652 grade 5 students; 11,860 grade 6 students; 10,384 grade 7 students; and

8,961 grade 8 students for a total of 135,893 participants. The winter benchmark was

taken by 14,158 kindergarteners; 20,448 grade 1 students; 22,441 grade 2 students;

20,807 grade 3 students; 20,031 grade 4 students; 19,446 grade 5 students; 11,919 grade 6

students; 10,116 grade 7 students; and 9,254 grade 8 students for a total of 148,640 participants.

Students of American Indian or Alaskan Native descent comprised 1-4% of the sample, and Asian students made up 2-3% of the sample across all grades. Black or African American students made up 10-19% of the sample in grade K-2 and 3-5% of the sample in grade 3-8. Native Hawaiian or other Pacific Islander students made up 0-1% and students identified as Two or more Races constituted 1-2% of the sample across all grades. Lastly, White students made up 44-55% of the sample, and those classified as Unknown ethnicity made up 29-47% of the sample across all grades.

Similarly, students identified as Hispanic/Latino made up 8-16% of the sample and students identified as Not Hispanic/Latino made up 48-70% of the sample, varying by grade level. The percentage of ELL students in the sample had a range of 16-33%. Students identified by their districts as disabled constituted 17-31% of the sample. Males made up 49-53% of the sample. Complete demographic data can be found in Tables 1-3.

Measures

The fall and winter benchmark versions of the easyCBM© CCSS math measures for grades K through 8 were used for this study. Due to the time of year in which the data were gathered, only fall and winter benchmark measures were included in this study. Kindergarten measures had a total of 30 points possible, grades 1 and 2 had a total of 35 points possible, and grades 3 through 5 and 6 through 8 had a potential of 40 and 45 points possible, respectively. The development of the measures for each grade (K-5 individually and 6-8 combined) is described in detail in their respective technical reports (Anderson, Alonzo, & Tindal, 2013; Irvin, Saven, Alonzo, Park, Anderson, & Tindal, 2013 a, b, &

c; Saven, Irvin, Park, Alonzo, Anderson, & Tindal, 2013 a, b, & c). As the technical reports document, the alternate forms of the measures within each grade (both benchmark and progress monitoring forms) were designed to be of equivalent difficulty, using a systematic and tightly controlled development plan. Thus, although this study used data only from fall and winter benchmark assessments, the results should generalize to the other forms.

Data preparation and analysis

Prior to analysis, students who had not responded to any items on a particular math measure were removed from the dataset. Next, the data were examined for scoring irregularities, and any out-of-range values were removed. One 5th grade student from the winter benchmark was removed due to a score being not within the possible range for the measure.

The measures were analyzed for internal consistency using Cronbach's Alpha and Split-half reliability (first half/second half) as well as item level statistics of the top and bottom 27th percentiles. For the split-half reliability, the measures were analyzed using the first half to the median compared to the second half. Further analysis of the data suggests the best reliability is achieved by retaining all items.

Results

Descriptive statistics for CCSS math can be found in Table 4. Table 5 and 6-20, respectively, document the internal consistency in the form of average inter-item reliability (Cronbach's Alpha), followed by split-half reliability and top / bottom reliability

Internal Consistency

CCSS math

The Cronbach's Alpha ranged from .81 to .95, with a median of .90 for all measures in both the fall and winter. As expected, all fall and winter measures for each grade were within .03 of one another, with most falling within .01. See table 5 for complete inter-item reliability data.

The split-half reliability ranged from .65 to .95 for the first and second half of the measures. The median for the first half was .80. It was .86 for the second half. The correlation between the two halves ranged from .52 to .73, with a median correlation of .67. See table 5 for complete split-half reliability data.

All items at all grade levels, but one, performed as expected with the higher percentile students getting the items correct more often than the lower percentile students. The one exception was item 9 of the 6th grade fall benchmark. Complete item-level statistics can be found in tables 6-23.

Discussion

Results of this study provide evidence in support of the internal consistency of the easyCBM© CCSS Math measures, across all grades K-8. Although only data from the Fall and Winter benchmark assessments were used in this study, the development process used for the measures, in which all alternate forms within a given grade level were designed to be of equivalent difficulty, and the consistent findings across all grades and forms analyzed suggests that the results may well generalize to the other easyCBM© CCSS Math forms, including the Spring benchmark tests and all ten progress monitoring forms at each grade level. It is also worth noting that the consistency of the findings across the fall and winter benchmark test forms add to the evidence of form equivalence reported in earlier technical reports documenting the development process used in the creation of the measures.

Table 1

Demographic Data: CCSS Math

Grade/ Time	Race						
	American Indian or Alaskan Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	Two or more Races	Unknown	White
K/F	132	259	1785	12	217	2749	4476
K/W	147	322	1964	28	282	4851	6564
1/F	436	384	2129	58	451	6499	8954
1/W	373	430	2129	45	449	7546	9476
2/F	486	418	2127	69	446	7242	10122
2/W	404	519	2179	61	452	7948	10878
3/F	586	444	737	70	299	7071	9149
3/W	527	507	883	71	340	8492	9987
4/F	657	465	695	82	313	6689	9328
4/W	551	514	885	93	306	7981	9701
5/F	550	488	771	77	327	6833	9606
5/W	507	516	891	94	334	7577	9547
6/F	329	284	403	49	222	4085	6488
6/W	296	294	517	54	208	4519	6031
7/F	292	206	332	35	155	4354	5010
7/W	235	222	262	27	136	4768	4466
8/F	276	212	357	27	126	3804	4159
8/W	204	225	272	33	141	4292	4087

Table 2

Demographic Data: CCSS Math (con't)

Grade/ Time	Ethnicity			ELL		
	Hispanic/ Latino	Not Hispanic/ Latino	Unknown	Yes	No	Unknown
K/F	750	6767	2113	2043	7116	471
K/W	1465	8386	4307	4153	9399	606
1/F	2455	10923	5533	5085	13149	677
1/W	2530	11137	6781	6185	13367	896
2/F	2918	12221	5771	5485	14629	796
2/W	3190	12235	7016	6992	14649	800
3/F	2882	9814	5660	4819	12710	827
3/W	3326	10022	7459	6839	13195	773
4/F	2610	10075	5544	4141	13259	829
4/W	2708	10267	7056	5596	13687	748
5/F	2411	10338	5903	4071	13922	659
5/W	2534	10174	6758	4884	13882	700
6/F	1710	7097	3053	1953	9266	641
6/W	1710	6383	3826	2602	8619	698
7/F	1463	6214	2707	1621	8261	502
7/W	1291	5363	3462	2194	7409	513
8/F	1130	5314	2517	7031	1486	444
8/W	1042	4901	3311	2190	6572	492

Table 3

Demographic Data: CCSS Math (con't)

Grade/Time	Disability			Gender		
	Yes	No	Unknown	Male	Female	Unknown
K/F	1668	7405	557	4745	4424	461
K/W	2824	10446	888	7464	6273	421
1/F	3869	14041	1001	9669	7881	1361
1/W	4701	14645	1102	10736	8883	829
2/F	4619	15173	1118	10523	8843	1544
2/W	5419	15956	1066	11740	9940	761
3/F	4337	12893	1126	9431	7963	962
3/W	5625	13960	1222	11005	9329	473
4/F	4258	12739	1232	9358	7735	1136
4/W	5459	13333	1239	10520	8822	689
5/F	4652	12946	1054	9703	7940	1009
5/W	5221	13213	1032	10396	8423	647
6/F	2662	8178	1020	5916	5670	274
6/W	3298	7774	847	5885	5688	346
7/F	2467	7163	754	5207	4990	187
7/W	2980	6446	690	5051	4802	263
8/F	2220	6130	611	4505	4245	211
8/W	2841	5763	650	4625	4340	289

Table 4

Descriptive Statistics: CCSS Math

Grade/Time	N	M	SD	Total Possible
K/F	9630	15.80	4.60	30
K/W	14158	19.83	4.72	30
1/F	18911	19.46	4.95	35
1/W	20448	24.79	5.52	35
2/F	20910	21.09	6.15	35
2/W	22441	24.35	5.91	35
3/F	18356	24.29	5.82	40
3/W	20807	28.12	6.21	40
4/F	18229	24.84	7.34	40
4/W	20031	26.51	6.76	40
5/F	18652	23.97	6.98	40
5/W	19465	25.93	6.95	40
6/F	11860	24.20	7.80	45
6/W	11919	26.24	8.97	45
7/F	10384	23.06	7.86	45
7/W	10116	26.52	9.32	45
8/F	8961	23.28	8.40	45
8/W	9254	27.53	8.49	45

Table 5

Internal Reliability: CCSS Math

Grade/Time	Cronbach's Alpha	Split-half Reliability		
		1st Half	2nd Half	Correlation
K/F	.84	.68	.81	.52
K/W	.81	.70	.73	.53
1/F	.81	.65	.77	.53
1/W	.84	.72	.76	.62
2/F	.87	.77	.81	.67
2/W	.88	.78	.81	.66
3/F	.87	.71	.84	.64
3/W	.88	.73	.86	.65
4/F	.90	.81	.86	.67
4/W	.90	.82	.86	.68
5/F	.92	.79	.90	.68
5/W	.91	.80	.89	.69
6/F	.92	.80	.92	.65
6/W	.95	.86	.95	.69
7/F	.93	.82	.94	.62
7/W	.95	.87	.94	.70
8/F	.93	.83	.92	.71
8/W	.93	.83	.92	.73

Table 6

Item Statistics of Students for Kindergarten CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.82	0.38	4129	0.99	0.11	4283
Item 2	0.79	0.41	4129	0.99	0.09	4283
Item 3	0.60	0.49	4129	0.95	0.22	4283
Item 4	0.36	0.48	4129	0.73	0.44	4283
Item 5	0.30	0.46	4129	0.61	0.49	4283
Item 6	0.44	0.50	4129	0.90	0.30	4283
Item 7	0.61	0.49	4129	0.96	0.19	4283
Item 8	0.56	0.50	4129	0.97	0.16	4283
Item 9	0.58	0.49	4129	0.96	0.19	4283
Item 10	0.60	0.49	4129	0.93	0.26	4283
Item 11	0.51	0.50	4129	0.94	0.24	4283
Item 12	0.38	0.48	4129	0.93	0.26	4283
Item 13	0.62	0.49	4129	0.93	0.26	4283
Item 14	0.60	0.49	4129	0.97	0.17	4283
Item 15	0.48	0.50	4129	0.92	0.27	4283
Item 16	0.54	0.50	4129	0.96	0.20	4283
Item 17	0.24	0.43	4129	0.49	0.50	4283
Item 18	0.72	0.45	4129	0.96	0.20	4283
Item 19	0.33	0.47	4129	0.92	0.27	4283
Item 20	0.54	0.50	4129	0.81	0.40	4283
Item 21	0.17	0.38	4129	0.79	0.41	4283
Item 22	0.40	0.49	4129	0.80	0.40	4283
Item 23	0.32	0.47	4129	0.86	0.35	4283
Item 24	0.21	0.41	4129	0.59	0.49	4283
Item 25	0.24	0.43	4129	0.42	0.49	4283
Item 26	0.51	0.50	4129	0.98	0.14	4283
Item 27	0.71	0.45	4129	0.98	0.14	4283
Item 28	0.35	0.48	4129	0.56	0.50	4283
Item 29	0.22	0.42	4129	0.65	0.48	4283
Item 30	0.34	0.47	4129	0.67	0.47	4283

Table 7

Item Statistics of Students for Kindergarten CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.90	0.30	9200	--	--	--
Item 2	0.85	0.36	9200	1.00	0.07	227
Item 3	0.68	0.47	9200	0.97	0.16	227
Item 4	0.43	0.49	9200	0.79	0.41	227
Item 5	0.54	0.50	9200	0.88	0.32	227
Item 6	0.61	0.49	9200	0.93	0.25	227
Item 7	0.68	0.47	9200	--	--	--
Item 8	0.76	0.43	9200	0.98	0.13	227
Item 9	0.55	0.50	9200	0.98	0.13	227
Item 10	0.74	0.44	9200	0.96	0.18	227
Item 11	0.40	0.49	9200	0.90	0.30	227
Item 12	0.43	0.50	9200	0.86	0.35	227
Item 13	0.54	0.50	9200	0.98	0.15	227
Item 14	0.57	0.50	9200	0.96	0.18	227
Item 15	0.55	0.50	9200	0.96	0.21	227
Item 16	0.57	0.49	9200	0.99	0.11	227
Item 17	0.33	0.47	9200	0.59	0.49	227
Item 18	0.58	0.49	9200	0.99	0.09	227
Item 19	0.63	0.48	9200	0.93	0.26	227
Item 20	0.47	0.50	9200	0.97	0.16	227
Item 21	0.32	0.47	9200	0.90	0.30	227
Item 22	0.48	0.50	9200	0.93	0.26	227
Item 23	0.42	0.49	9200	0.70	0.46	227
Item 24	0.25	0.44	9200	0.64	0.48	227
Item 25	0.20	0.40	9200	0.40	0.49	227
Item 26	0.51	0.50	9200	0.92	0.27	227
Item 27	0.56	0.50	9200	0.95	0.22	227
Item 28	0.31	0.46	9200	0.66	0.48	227
Item 29	0.31	0.46	9200	0.73	0.45	227
Item 30	0.21	0.41	9200	0.41	0.49	227

Note. Item 1 and 7 of the fall Kindergarten measure has a variance of zero indicating all participants answered the question correctly.

Table 8

Item Statistics of Students for Grade 1 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.60	0.49	5191	0.92	0.27	5111
Item 2	0.52	0.50	5191	0.92	0.27	5111
Item 3	0.19	0.39	5191	0.39	0.49	5111
Item 4	0.52	0.50	5191	0.93	0.25	5111
Item 5	0.75	0.43	5191	0.99	0.10	5111
Item 6	0.50	0.50	5191	0.95	0.22	5111
Item 7	0.49	0.50	5191	0.80	0.40	5111
Item 8	0.54	0.50	5191	0.94	0.24	5111
Item 9	0.32	0.47	5191	0.71	0.46	5111
Item 10	0.44	0.50	5191	0.65	0.48	5111
Item 11	0.23	0.42	5191	0.54	0.50	5111
Item 12	0.29	0.45	5191	0.73	0.44	5111
Item 13	0.33	0.47	5191	0.75	0.43	5111
Item 14	0.20	0.40	5191	0.45	0.50	5111
Item 15	0.33	0.47	5191	0.87	0.33	5111
Item 16	0.31	0.46	5191	0.80	0.40	5111
Item 17	0.25	0.43	5191	0.54	0.50	5111
Item 18	0.29	0.45	5191	0.56	0.50	5111
Item 19	0.52	0.50	5191	0.97	0.16	5111
Item 20	0.54	0.50	5191	0.97	0.17	5111
Item 21	0.43	0.50	5191	0.96	0.19	5111
Item 22	0.28	0.45	5191	0.83	0.37	5111
Item 23	0.28	0.45	5191	0.59	0.49	5111
Item 24	0.24	0.43	5191	0.45	0.50	5111
Item 25	0.25	0.43	5191	0.44	0.50	5111
Item 26	0.40	0.49	5191	0.83	0.38	5111
Item 27	0.34	0.47	5191	0.81	0.39	5111
Item 28	0.25	0.43	5191	0.39	0.49	5111
Item 29	0.22	0.41	5191	0.34	0.47	5111
Item 30	0.25	0.44	5191	0.45	0.50	5111
Item 31	0.71	0.45	5191	0.97	0.16	5111
Item 32	0.62	0.49	5191	0.88	0.32	5111
Item 33	0.42	0.49	5191	0.87	0.33	5111
Item 34	0.40	0.49	5191	0.92	0.27	5111
Item 35	0.17	0.38	5191	0.37	0.48	5111

Table 9
Item Statistics of Students for Grade 1 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.85	0.36	6346	0.97	0.18	5828
Item 2	0.76	0.43	6346	0.95	0.21	5828
Item 3	0.38	0.49	6346	0.73	0.45	5828
Item 4	0.67	0.47	6346	0.98	0.12	5828
Item 5	0.70	0.46	6346	0.97	0.18	5828
Item 6	0.64	0.48	6346	0.98	0.13	5828
Item 7	0.76	0.43	6346	0.94	0.24	5828
Item 8	0.43	0.50	6346	0.92	0.27	5828
Item 9	0.49	0.50	6346	0.89	0.31	5828
Item 10	0.43	0.50	6346	0.67	0.47	5828
Item 11	0.60	0.49	6346	0.99	0.12	5828
Item 12	0.48	0.50	6346	0.96	0.20	5828
Item 13	0.31	0.46	6346	0.87	0.33	5828
Item 14	0.48	0.50	6346	0.90	0.30	5828
Item 15	0.44	0.50	6346	0.97	0.17	5828
Item 16	0.39	0.49	6346	0.96	0.20	5828
Item 17	0.36	0.48	6346	0.86	0.34	5828
Item 18	0.70	0.46	6346	0.87	0.34	5828
Item 19	0.65	0.48	6346	0.99	0.11	5828
Item 20	0.84	0.37	6346	1.00	0.04	5828
Item 21	0.37	0.48	6346	0.92	0.27	5828
Item 22	0.48	0.50	6346	0.98	0.14	5828
Item 23	0.40	0.49	6346	0.90	0.30	5828
Item 24	0.35	0.48	6346	0.90	0.29	5828
Item 25	0.28	0.45	6346	0.79	0.41	5828
Item 26	0.44	0.50	6346	0.93	0.26	5828
Item 27	0.45	0.50	6346	0.86	0.35	5828
Item 28	0.29	0.45	6346	0.50	0.50	5828
Item 29	0.28	0.45	6346	0.51	0.50	5828
Item 30	0.29	0.45	6346	0.42	0.49	5828
Item 31	0.74	0.44	6346	0.99	0.12	5828
Item 32	0.72	0.45	6346	1.00	0.06	5828
Item 33	0.71	0.45	6346	0.98	0.14	5828
Item 34	0.56	0.50	6346	0.97	0.16	5828
Item 35	0.32	0.47	6346	0.83	0.37	5828

Table 10
Item Statistics of Students for Grade 2 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.68	0.47	6181	0.96	0.19	2669
Item 2	0.66	0.47	6181	0.96	0.19	2669
Item 3	0.56	0.50	6181	0.87	0.33	2669
Item 4	0.77	0.42	6181	0.97	0.18	2669
Item 5	0.60	0.49	6181	0.96	0.19	2669
Item 6	0.41	0.49	6181	0.99	0.12	2669
Item 7	0.25	0.43	6181	0.76	0.42	2669
Item 8	0.39	0.49	6181	0.97	0.16	2669
Item 9	0.18	0.38	6181	0.90	0.30	2669
Item 10	0.28	0.45	6181	0.79	0.41	2669
Item 11	0.54	0.50	6181	0.99	0.10	2669
Item 12	0.43	0.50	6181	0.99	0.11	2669
Item 13	0.35	0.48	6181	0.97	0.18	2669
Item 14	0.49	0.50	6181	0.99	0.12	2669
Item 15	0.31	0.46	6181	0.93	0.26	2669
Item 16	0.27	0.44	6181	0.82	0.38	2669
Item 17	0.21	0.41	6181	0.79	0.41	2669
Item 18	0.35	0.48	6181	0.91	0.29	2669
Item 19	0.55	0.50	6181	0.96	0.19	2669
Item 20	0.24	0.43	6181	0.75	0.43	2669
Item 21	0.28	0.45	6181	0.85	0.35	2669
Item 22	0.40	0.49	6181	0.98	0.13	2669
Item 23	0.26	0.44	6181	0.84	0.36	2669
Item 24	0.34	0.47	6181	0.90	0.30	2669
Item 25	0.27	0.45	6181	0.78	0.41	2669
Item 26	0.34	0.48	6181	0.94	0.24	2669
Item 27	0.49	0.50	6181	0.97	0.17	2669
Item 28	0.28	0.45	6181	0.69	0.46	2669
Item 29	0.22	0.41	6181	0.93	0.26	2669
Item 30	0.17	0.37	6181	0.37	0.48	2669
Item 31	0.73	0.44	6181	0.99	0.12	2669
Item 32	0.60	0.49	6181	0.97	0.17	2669
Item 33	0.37	0.48	6181	0.98	0.13	2669
Item 34	0.39	0.49	6181	0.88	0.32	2669
Item 35	0.21	0.41	6181	0.69	0.46	2669

Table 11

Item Statistics of Students for Grade 2 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.89	0.32	6732	0.96	0.20	6255
Item 2	0.67	0.47	6732	0.97	0.18	6255
Item 3	0.69	0.46	6732	0.91	0.29	6255
Item 4	0.38	0.49	6732	0.97	0.17	6255
Item 5	0.67	0.47	6732	0.96	0.20	6255
Item 6	0.62	0.48	6732	0.96	0.21	6255
Item 7	0.34	0.47	6732	0.81	0.39	6255
Item 8	0.45	0.50	6732	0.86	0.35	6255
Item 9	0.23	0.42	6732	0.89	0.31	6255
Item 10	0.25	0.43	6732	0.70	0.46	6255
Item 11	0.56	0.50	6732	0.98	0.15	6255
Item 12	0.73	0.44	6732	0.99	0.08	6255
Item 13	0.59	0.49	6732	0.98	0.15	6255
Item 14	0.64	0.48	6732	0.98	0.15	6255
Item 15	0.42	0.49	6732	0.96	0.19	6255
Item 16	0.24	0.42	6732	0.86	0.35	6255
Item 17	0.17	0.38	6732	0.80	0.40	6255
Item 18	0.54	0.50	6732	0.96	0.19	6255
Item 19	0.74	0.44	6732	0.97	0.16	6255
Item 20	0.39	0.49	6732	0.94	0.24	6255
Item 21	0.34	0.47	6732	0.91	0.29	6255
Item 22	0.36	0.48	6732	0.91	0.29	6255
Item 23	0.38	0.49	6732	0.94	0.24	6255
Item 24	0.27	0.44	6732	0.79	0.41	6255
Item 25	0.24	0.43	6732	0.75	0.43	6255
Item 26	0.61	0.49	6732	0.99	0.12	6255
Item 27	0.73	0.44	6732	0.98	0.15	6255
Item 28	0.29	0.45	6732	0.90	0.30	6255
Item 29	0.23	0.42	6732	0.27	0.45	6255
Item 30	0.30	0.46	6732	0.50	0.50	6255
Item 31	0.85	0.36	6732	1.00	0.05	6255
Item 32	0.81	0.39	6732	0.99	0.12	6255
Item 33	0.56	0.50	6732	0.99	0.08	6255
Item 34	0.52	0.50	6732	0.98	0.14	6255
Item 35	0.40	0.49	6732	0.78	0.41	6255

Table 12

Item Statistics of Students for Grade 3 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.61	0.49	5504	0.96	0.19	5303
Item 2	0.25	0.43	5504	0.46	0.50	5303
Item 3	0.13	0.34	5504	0.51	0.50	5303
Item 4	0.59	0.49	5504	0.97	0.18	5303
Item 5	0.42	0.49	5504	0.95	0.22	5303
Item 6	0.27	0.45	5504	0.82	0.38	5303
Item 7	0.81	0.40	5504	0.98	0.13	5303
Item 8	0.80	0.40	5504	0.99	0.11	5303
Item 9	0.64	0.48	5504	0.98	0.14	5303
Item 10	0.67	0.47	5504	0.93	0.25	5303
Item 11	0.64	0.48	5504	0.82	0.39	5303
Item 12	0.58	0.49	5504	0.90	0.30	5303
Item 13	0.28	0.45	5504	0.50	0.50	5303
Item 14	0.70	0.46	5504	0.97	0.18	5303
Item 15	0.47	0.50	5504	0.87	0.33	5303
Item 16	0.75	0.43	5504	0.88	0.32	5303
Item 17	0.53	0.50	5504	0.92	0.27	5303
Item 18	0.52	0.50	5504	0.62	0.49	5303
Item 19	0.31	0.46	5504	0.63	0.48	5303
Item 20	0.13	0.34	5504	0.21	0.41	5303
Item 21	0.50	0.50	5504	0.96	0.20	5303
Item 22	0.56	0.50	5504	0.96	0.19	5303
Item 23	0.56	0.50	5504	0.98	0.13	5303
Item 24	0.18	0.39	5504	0.73	0.44	5303
Item 25	0.31	0.46	5504	0.79	0.41	5303
Item 26	0.15	0.35	5504	0.65	0.48	5303
Item 27	0.26	0.44	5504	0.52	0.50	5303
Item 28	0.41	0.49	5504	0.93	0.26	5303
Item 29	0.44	0.50	5504	0.73	0.44	5303
Item 30	0.35	0.48	5504	0.70	0.46	5303
Item 31	0.26	0.44	5504	0.80	0.40	5303
Item 32	0.13	0.34	5504	0.22	0.41	5303
Item 33	0.63	0.48	5504	0.83	0.38	5303
Item 34	0.12	0.32	5504	0.21	0.41	5303
Item 35	0.30	0.46	5504	0.48	0.50	5303
Item 36	0.65	0.48	5504	0.98	0.15	5303
Item 37	0.70	0.46	5504	0.98	0.14	5303
Item 38	0.44	0.50	5504	0.94	0.24	5303
Item 39	0.28	0.45	5504	0.88	0.32	5303
Item 40	0.26	0.44	5504	0.85	0.35	5303

Table 13

Item Statistics of Students for Grade 3 CCSS Math Winter Benchmark

	27th percentile and below				73rd percentile and above		
	M	*SD*	*N*		*M*	*SD*	*N*
Item 1	0.87	0.34	6218		1.00	0.07	6552
Item 2	0.33	0.47	6218		0.65	0.48	6552
Item 3	0.30	0.46	6218		0.61	0.49	6552
Item 4	0.92	0.28	6218		0.99	0.09	6552
Item 5	0.23	0.42	6218		0.62	0.49	6552
Item 6	0.29	0.45	6218		0.72	0.45	6552
Item 7	0.77	0.42	6218		0.99	0.11	6552
Item 8	0.73	0.45	6218		0.97	0.17	6552
Item 9	0.74	0.44	6218		0.97	0.17	6552
Item 10	0.74	0.44	6218		0.92	0.26	6552
Item 11	0.60	0.49	6218		0.85	0.36	6552
Item 12	0.59	0.49	6218		0.94	0.23	6552
Item 13	0.23	0.42	6218		0.74	0.44	6552
Item 14	0.78	0.42	6218		0.98	0.12	6552
Item 15	0.71	0.46	6218		0.86	0.35	6552
Item 16	0.62	0.49	6218		0.90	0.30	6552
Item 17	0.74	0.44	6218		0.99	0.12	6552
Item 18	0.54	0.50	6218		0.90	0.29	6552
Item 19	0.53	0.50	6218		0.92	0.27	6552
Item 20	0.14	0.34	6218		0.56	0.50	6552
Item 21	0.75	0.43	6218		0.99	0.07	6552
Item 22	0.83	0.38	6218		1.00	0.06	6552
Item 23	0.79	0.40	6218		1.00	0.05	6552
Item 24	0.41	0.49	6218		0.93	0.25	6552
Item 25	0.30	0.46	6218		0.93	0.25	6552
Item 26	0.23	0.42	6218		0.78	0.42	6552
Item 27	0.16	0.37	6218		0.58	0.49	6552
Item 28	0.45	0.50	6218		0.98	0.15	6552
Item 29	0.40	0.49	6218		0.93	0.25	6552
Item 30	0.28	0.45	6218		0.91	0.29	6552
Item 31	0.38	0.48	6218		0.91	0.28	6552
Item 32	0.58	0.49	6218		0.89	0.31	6552
Item 33	0.59	0.49	6218		0.76	0.43	6552
Item 34	0.31	0.46	6218		0.71	0.45	6552
Item 35	0.25	0.43	6218		0.51	0.50	6552
Item 36	0.69	0.46	6218		0.97	0.17	6552
Item 37	0.63	0.48	6218		0.98	0.14	6552
Item 38	0.64	0.48	6218		0.98	0.15	6552
Item 39	0.24	0.43	6218		0.87	0.34	6552
Item 40	0.41	0.49	6218		0.89	0.31	6552

Table 14

Item Statistics of Students for Grade 4 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.16	0.36	5277	0.76	0.43	5346
Item 2	0.12	0.33	5277	0.55	0.50	5346
Item 3	0.31	0.46	5277	0.80	0.40	5346
Item 4	0.31	0.46	5277	0.92	0.27	5346
Item 5	0.40	0.49	5277	0.78	0.41	5346
Item 6	0.31	0.46	5277	0.69	0.46	5346
Item 7	0.77	0.42	5277	0.96	0.21	5346
Item 8	0.56	0.50	5277	0.86	0.34	5346
Item 9	0.33	0.47	5277	0.78	0.41	5346
Item 10	0.34	0.47	5277	0.95	0.21	5346
Item 11	0.47	0.50	5277	0.91	0.29	5346
Item 12	0.29	0.45	5277	0.85	0.36	5346
Item 13	0.27	0.44	5277	0.83	0.37	5346
Item 14	0.35	0.48	5277	0.71	0.46	5346
Item 15	0.18	0.38	5277	0.91	0.29	5346
Item 16	0.27	0.44	5277	0.66	0.47	5346
Item 17	0.15	0.36	5277	0.81	0.39	5346
Item 18	0.79	0.41	5277	0.97	0.16	5346
Item 19	0.42	0.49	5277	0.82	0.39	5346
Item 20	0.61	0.49	5277	0.99	0.10	5346
Item 21	0.47	0.50	5277	0.98	0.15	5346
Item 22	0.33	0.47	5277	0.95	0.21	5346
Item 23	0.50	0.50	5277	0.80	0.40	5346
Item 24	0.41	0.49	5277	0.81	0.39	5346
Item 25	0.42	0.49	5277	0.82	0.38	5346
Item 26	0.25	0.43	5277	0.80	0.40	5346
Item 27	0.21	0.41	5277	0.41	0.49	5346
Item 28	0.39	0.49	5277	0.83	0.38	5346

Item 29	0.68	0.47	5277	0.87	0.33	5346
Item 30	0.35	0.48	5277	0.51	0.50	5346
Item 31	0.46	0.50	5277	0.93	0.25	5346
Item 32	0.49	0.50	5277	0.94	0.23	5346
Item 33	0.35	0.48	5277	0.87	0.33	5346
Item 34	0.38	0.48	5277	0.78	0.41	5346
Item 35	0.28	0.45	5277	0.63	0.48	5346
Item 36	0.63	0.48	5277	0.98	0.14	5346
Item 37	0.70	0.46	5277	0.99	0.10	5346
Item 38	0.51	0.50	5277	0.98	0.14	5346
Item 39	0.40	0.49	5277	0.97	0.16	5346
Item 40	0.22	0.41	5277	0.94	0.24	5346

Table 15

Item Statistics of Students for Grade 4 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.76	0.43	5850	0.98	0.13	6033
Item 2	0.44	0.50	5850	0.81	0.39	6033
Item 3	0.24	0.42	5850	0.63	0.48	6033
Item 4	0.46	0.50	5850	0.94	0.23	6033
Item 5	0.29	0.45	5850	0.82	0.39	6033
Item 6	0.35	0.48	5850	0.67	0.47	6033
Item 7	0.81	0.39	5850	0.97	0.17	6033
Item 8	0.36	0.48	5850	0.95	0.22	6033
Item 9	0.53	0.50	5850	0.97	0.18	6033
Item 10	0.47	0.50	5850	0.97	0.17	6033
Item 11	0.56	0.50	5850	0.96	0.20	6033
Item 12	0.30	0.46	5850	0.76	0.42	6033
Item 13	0.18	0.38	5850	0.66	0.47	6033
Item 14	0.34	0.47	5850	0.93	0.26	6033
Item 15	0.23	0.42	5850	0.85	0.35	6033
Item 16	0.16	0.37	5850	0.33	0.47	6033
Item 17	0.15	0.35	5850	0.53	0.50	6033
Item 18	0.72	0.45	5850	0.98	0.16	6033
Item 19	0.48	0.50	5850	0.88	0.32	6033
Item 20	0.58	0.49	5850	0.99	0.08	6033
Item 21	0.61	0.49	5850	0.97	0.18	6033
Item 22	0.68	0.47	5850	0.99	0.11	6033
Item 23	0.46	0.50	5850	0.86	0.35	6033
Item 24	0.47	0.50	5850	0.89	0.32	6033
Item 25	0.49	0.50	5850	0.86	0.35	6033
Item 26	0.50	0.50	5850	0.84	0.36	6033
Item 27	0.19	0.39	5850	0.36	0.48	6033
Item 28	0.51	0.50	5850	0.95	0.21	6033

Item 29	0.52	0.50	5850	0.74	0.44	6033
Item 30	0.35	0.48	5850	0.53	0.50	6033
Item 31	0.59	0.49	5850	0.97	0.18	6033
Item 32	0.60	0.49	5850	0.95	0.22	6033
Item 33	0.55	0.50	5850	0.97	0.17	6033
Item 34	0.47	0.50	5850	0.95	0.22	6033
Item 35	0.28	0.45	5850	0.76	0.42	6033
Item 36	0.75	0.43	5850	1.00	0.04	6033
Item 37	0.63	0.48	5850	0.97	0.17	6033
Item 38	0.57	0.50	5850	0.99	0.09	6033
Item 39	0.31	0.46	5850	0.79	0.40	6033
Item 40	0.31	0.46	5850	0.78	0.41	6033

Table 16

Item Statistics of Students for Grade 5 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.76	0.43	5594	0.97	0.16	5189
Item 2	0.39	0.49	5594	0.64	0.48	5189
Item 3	0.31	0.46	5594	0.63	0.48	5189
Item 4	0.27	0.44	5594	0.44	0.50	5189
Item 5	0.41	0.49	5594	0.70	0.46	5189
Item 6	0.41	0.49	5594	0.85	0.36	5189
Item 7	0.45	0.50	5594	0.92	0.27	5189
Item 8	0.43	0.50	5594	0.89	0.31	5189
Item 9	0.48	0.50	5594	0.95	0.23	5189
Item 10	0.36	0.48	5594	0.82	0.38	5189
Item 11	0.29	0.45	5594	0.79	0.41	5189
Item 12	0.53	0.50	5594	0.96	0.20	5189
Item 13	0.43	0.49	5594	0.94	0.23	5189
Item 14	0.39	0.49	5594	0.95	0.21	5189
Item 15	0.26	0.44	5594	0.74	0.44	5189
Item 16	0.27	0.45	5594	0.65	0.48	5189
Item 17	0.85	0.36	5594	0.99	0.08	5189
Item 18	0.65	0.48	5594	0.97	0.16	5189
Item 19	0.48	0.50	5594	0.79	0.41	5189
Item 20	0.42	0.49	5594	0.86	0.34	5189
Item 21	0.27	0.44	5594	0.72	0.45	5189
Item 22	0.34	0.47	5594	0.79	0.41	5189
Item 23	0.33	0.47	5594	0.86	0.34	5189
Item 24	0.34	0.48	5594	0.72	0.45	5189
Item 25	0.28	0.45	5594	0.73	0.44	5189
Item 26	0.58	0.49	5594	0.98	0.12	5189
Item 27	0.59	0.49	5594	0.98	0.14	5189
Item 28	0.40	0.49	5594	0.93	0.25	5189

Item 29	0.30	0.46	5594	0.78	0.42	5189
Item 30	0.26	0.44	5594	0.74	0.44	5189
Item 31	0.26	0.44	5594	0.82	0.39	5189
Item 32	0.27	0.44	5594	0.68	0.47	5189
Item 33	0.24	0.43	5594	0.71	0.45	5189
Item 34	0.26	0.44	5594	0.52	0.50	5189
Item 35	0.17	0.37	5594	0.25	0.44	5189
Item 36	0.57	0.49	5594	0.99	0.07	5189
Item 37	0.32	0.47	5594	0.94	0.23	5189
Item 38	0.58	0.49	5594	0.90	0.30	5189
Item 39	0.14	0.35	5594	0.70	0.46	5189
Item 40	0.32	0.47	5594	0.90	0.30	5189

Table 17

Item Statistics of Students for Grade 5 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.63	0.48	5546	0.98	0.16	5340
Item 2	0.64	0.48	5546	0.94	0.24	5340
Item 3	0.23	0.42	5546	0.41	0.49	5340
Item 4	0.23	0.42	5546	0.66	0.47	5340
Item 5	0.55	0.50	5546	0.96	0.18	5340
Item 6	0.54	0.50	5546	0.95	0.23	5340
Item 7	0.44	0.50	5546	0.95	0.22	5340
Item 8	0.47	0.50	5546	0.97	0.18	5340
Item 9	0.38	0.49	5546	0.76	0.43	5340
Item 10	0.48	0.50	5546	0.92	0.27	5340
Item 11	0.30	0.46	5546	0.83	0.37	5340
Item 12	0.52	0.50	5546	0.99	0.08	5340
Item 13	0.52	0.50	5546	0.97	0.16	5340
Item 14	0.45	0.50	5546	0.90	0.30	5340
Item 15	0.29	0.46	5546	0.80	0.40	5340
Item 16	0.15	0.35	5546	0.67	0.47	5340
Item 17	0.87	0.33	5546	0.99	0.07	5340
Item 18	0.75	0.43	5546	0.96	0.20	5340
Item 19	0.56	0.50	5546	0.89	0.31	5340
Item 20	0.49	0.50	5546	0.83	0.37	5340
Item 21	0.34	0.47	5546	0.83	0.37	5340
Item 22	0.23	0.42	5546	0.81	0.40	5340
Item 23	0.23	0.42	5546	0.74	0.44	5340
Item 24	0.40	0.49	5546	0.94	0.24	5340
Item 25	0.30	0.46	5546	0.87	0.34	5340
Item 26	0.64	0.48	5546	0.99	0.12	5340
Item 27	0.55	0.50	5546	0.94	0.25	5340
Item 28	0.59	0.49	5546	0.99	0.11	5340

Item 29	0.57	0.49	5546	0.99	0.09	5340
Item 30	0.32	0.46	5546	0.92	0.27	5340
Item 31	0.49	0.50	5546	0.97	0.18	5340
Item 32	0.17	0.38	5546	0.56	0.50	5340
Item 33	0.25	0.43	5546	0.74	0.44	5340
Item 34	0.18	0.38	5546	0.51	0.50	5340
Item 35	0.16	0.36	5546	0.34	0.47	5340
Item 36	0.65	0.48	5546	0.97	0.16	5340
Item 37	0.66	0.47	5546	1.00	0.07	5340
Item 38	0.50	0.50	5546	0.78	0.42	5340
Item 39	0.37	0.48	5546	0.86	0.35	5340
Item 40	0.24	0.43	5546	0.73	0.45	5340

Table 18

Item Statistics of Students for Grade 6 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.32	0.47	3329	0.78	0.42	3634
Item 2	0.45	0.50	3329	0.90	0.30	3634
Item 3	0.37	0.48	3329	0.85	0.36	3634
Item 4	0.21	0.41	3329	0.59	0.49	3634
Item 5	0.32	0.47	3329	0.79	0.41	3634
Item 6	0.49	0.50	3329	0.94	0.24	3634
Item 7	0.30	0.46	3329	0.58	0.49	3634
Item 8	0.28	0.45	3329	0.70	0.46	3634
Item 9	0.31	0.46	3329	0.30	0.46	3634
Item 10	0.21	0.41	3329	0.44	0.50	3634
Item 11	0.23	0.42	3329	0.44	0.50	3634
Item 12	0.45	0.50	3329	0.91	0.29	3634
Item 13	0.37	0.48	3329	0.88	0.32	3634
Item 14	0.42	0.49	3329	0.87	0.34	3634
Item 15	0.25	0.43	3329	0.65	0.48	3634
Item 16	0.51	0.50	3329	0.85	0.35	3634
Item 17	0.36	0.48	3329	0.92	0.28	3634
Item 18	0.23	0.42	3329	0.44	0.50	3634
Item 19	0.29	0.46	3329	0.62	0.49	3634
Item 20	0.21	0.40	3329	0.63	0.48	3634
Item 21	0.36	0.48	3329	0.75	0.43	3634
Item 22	0.30	0.46	3329	0.74	0.44	3634
Item 23	0.34	0.47	3329	0.69	0.46	3634
Item 24	0.25	0.43	3329	0.72	0.45	3634
Item 25	0.24	0.42	3329	0.41	0.49	3634
Item 26	0.51	0.50	3329	0.99	0.08	3634
Item 27	0.35	0.48	3329	0.92	0.27	3634
Item 28	0.27	0.44	3329	0.87	0.34	3634

Item 29	0.33	0.47	3329	0.90	0.29	3634
Item 30	0.31	0.46	3329	0.60	0.49	3634
Item 31	0.41	0.49	3329	0.94	0.25	3634
Item 32	0.25	0.43	3329	0.79	0.40	3634
Item 33	0.25	0.43	3329	0.81	0.39	3634
Item 34	0.25	0.44	3329	0.58	0.49	3634
Item 35	0.17	0.37	3329	0.30	0.46	3634
Item 36	0.55	0.50	3329	0.96	0.19	3634
Item 37	0.30	0.46	3329	0.92	0.28	3634
Item 38	0.29	0.45	3329	0.76	0.43	3634
Item 39	0.24	0.43	3329	0.61	0.49	3634
Item 40	0.20	0.40	3329	0.31	0.46	3634
Item 41	0.52	0.50	3329	0.99	0.12	3634
Item 42	0.57	0.50	3329	0.98	0.13	3634
Item 43	0.41	0.49	3329	0.94	0.24	3634
Item 44	0.30	0.46	3329	0.79	0.41	3634
Item 45	0.30	0.46	3329	0.82	0.39	3634

Table 19

Item Statistics of Students for Grade 6 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.46	0.50	3515	0.94	0.24	3581
Item 2	0.42	0.49	3515	0.92	0.27	3581
Item 3	0.36	0.48	3515	0.82	0.39	3581
Item 4	0.30	0.46	3515	0.80	0.40	3581
Item 5	0.64	0.48	3515	0.97	0.16	3581
Item 6	0.33	0.47	3515	0.69	0.46	3581
Item 7	0.21	0.41	3515	0.42	0.49	3581
Item 8	0.24	0.42	3515	0.50	0.50	3581
Item 9	0.31	0.46	3515	0.60	0.49	3581
Item 10	0.44	0.50	3515	0.92	0.27	3581
Item 11	0.47	0.50	3515	0.95	0.21	3581
Item 12	0.30	0.46	3515	0.88	0.33	3581
Item 13	0.39	0.49	3515	0.88	0.33	3581
Item 14	0.35	0.48	3515	0.62	0.49	3581
Item 15	0.20	0.40	3515	0.60	0.49	3581
Item 16	0.60	0.49	3515	0.92	0.28	3581
Item 17	0.46	0.50	3515	0.97	0.17	3581
Item 18	0.44	0.50	3515	0.98	0.16	3581
Item 19	0.27	0.45	3515	0.75	0.43	3581
Item 20	0.30	0.46	3515	0.77	0.42	3581
Item 21	0.30	0.46	3515	0.67	0.47	3581
Item 22	0.26	0.44	3515	0.76	0.42	3581
Item 23	0.31	0.46	3515	0.74	0.44	3581
Item 24	0.15	0.35	3515	0.55	0.50	3581
Item 25	0.29	0.45	3515	0.60	0.49	3581
Item 26	0.52	0.50	3515	0.96	0.21	3581
Item 27	0.38	0.48	3515	0.95	0.22	3581
Item 28	0.32	0.47	3515	0.93	0.25	3581

Item 29	0.34	0.48	3515	0.93	0.26	3581
Item 30	0.23	0.42	3515	0.92	0.26	3581
Item 31	0.48	0.50	3515	0.98	0.14	3581
Item 32	0.19	0.39	3515	0.88	0.33	3581
Item 33	0.23	0.42	3515	0.86	0.34	3581
Item 34	0.17	0.38	3515	0.70	0.46	3581
Item 35	0.17	0.38	3515	0.57	0.49	3581
Item 36	0.51	0.50	3515	0.96	0.20	3581
Item 37	0.33	0.47	3515	0.86	0.35	3581
Item 38	0.35	0.48	3515	0.82	0.39	3581
Item 39	0.14	0.35	3515	0.55	0.50	3581
Item 40	0.17	0.37	3515	0.49	0.50	3581
Item 41	0.47	0.50	3515	0.99	0.12	3581
Item 42	0.45	0.50	3515	0.96	0.20	3581
Item 43	0.48	0.50	3515	0.99	0.11	3581
Item 44	0.38	0.48	3515	0.95	0.23	3581
Item 45	0.27	0.45	3515	0.91	0.29	3581

Table 20

Item Statistics of Students for Grade 7 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.41	0.49	2922	0.70	0.46	2915
Item 2	0.39	0.49	2922	0.76	0.43	2915
Item 3	0.33	0.47	2922	0.50	0.50	2915
Item 4	0.20	0.40	2922	0.24	0.43	2915
Item 5	0.21	0.41	2922	0.40	0.49	2915
Item 6	0.67	0.47	2922	0.97	0.16	2915
Item 7	0.58	0.49	2922	0.97	0.17	2915
Item 8	0.41	0.49	2922	0.82	0.38	2915
Item 9	0.30	0.46	2922	0.76	0.43	2915
Item 10	0.32	0.47	2922	0.59	0.49	2915
Item 11	0.25	0.43	2922	0.60	0.49	2915
Item 12	0.27	0.44	2922	0.56	0.50	2915
Item 13	0.35	0.48	2922	0.93	0.26	2915
Item 14	0.63	0.48	2922	0.95	0.21	2915
Item 15	0.22	0.41	2922	0.55	0.50	2915
Item 16	0.21	0.41	2922	0.68	0.47	2915
Item 17	0.26	0.44	2922	0.65	0.48	2915
Item 18	0.36	0.48	2922	0.77	0.42	2915
Item 19	0.28	0.45	2922	0.78	0.42	2915
Item 20	0.28	0.45	2922	0.68	0.47	2915
Item 21	0.18	0.39	2922	0.54	0.50	2915
Item 22	0.25	0.43	2922	0.73	0.44	2915
Item 23	0.33	0.47	2922	0.84	0.37	2915
Item 24	0.29	0.45	2922	0.74	0.44	2915
Item 25	0.27	0.44	2922	0.74	0.44	2915
Item 26	0.33	0.47	2922	0.93	0.26	2915
Item 27	0.39	0.49	2922	0.89	0.31	2915
Item 28	0.31	0.46	2922	0.80	0.40	2915

Item 29	0.24	0.43	2922	0.77	0.42	2915
Item 30	0.28	0.45	2922	0.63	0.48	2915
Item 31	0.55	0.50	2922	0.98	0.15	2915
Item 32	0.34	0.47	2922	0.96	0.19	2915
Item 33	0.30	0.46	2922	0.81	0.39	2915
Item 34	0.23	0.42	2922	0.76	0.42	2915
Item 35	0.17	0.37	2922	0.42	0.49	2915
Item 36	0.39	0.49	2922	0.82	0.38	2915
Item 37	0.32	0.47	2922	0.90	0.30	2915
Item 38	0.22	0.42	2922	0.89	0.32	2915
Item 39	0.20	0.40	2922	0.44	0.50	2915
Item 40	0.08	0.27	2922	0.43	0.49	2915
Item 41	0.47	0.50	2922	0.95	0.22	2915
Item 42	0.24	0.43	2922	0.85	0.36	2915
Item 43	0.23	0.42	2922	0.85	0.36	2915
Item 44	0.22	0.42	2922	0.67	0.47	2915
Item 45	0.15	0.36	2922	0.48	0.50	2915

Table 21

Item Statistics of Students for Grade 7 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.36	0.48	3061	0.75	0.43	2987
Item 2	0.28	0.45	3061	0.84	0.37	2987
Item 3	0.34	0.47	3061	0.87	0.33	2987
Item 4	0.30	0.46	3061	0.82	0.39	2987
Item 5	0.27	0.44	3061	0.62	0.48	2987
Item 6	0.23	0.42	3061	0.49	0.50	2987
Item 7	0.21	0.41	3061	0.88	0.32	2987
Item 8	0.60	0.49	3061	0.99	0.12	2987
Item 9	0.46	0.50	3061	0.89	0.31	2987
Item 10	0.22	0.41	3061	0.71	0.46	2987
Item 11	0.27	0.44	3061	0.68	0.47	2987
Item 12	0.55	0.50	3061	0.94	0.25	2987
Item 13	0.49	0.50	3061	0.93	0.26	2987
Item 14	0.32	0.47	3061	0.87	0.34	2987
Item 15	0.41	0.49	3061	0.86	0.35	2987
Item 16	0.34	0.47	3061	0.93	0.26	2987
Item 17	0.21	0.41	3061	0.67	0.47	2987
Item 18	0.25	0.43	3061	0.65	0.48	2987
Item 19	0.62	0.49	3061	0.99	0.11	2987
Item 20	0.42	0.49	3061	0.97	0.17	2987
Item 21	0.36	0.48	3061	0.89	0.32	2987
Item 22	0.32	0.47	3061	0.89	0.32	2987
Item 23	0.33	0.47	3061	0.81	0.39	2987
Item 24	0.29	0.46	3061	0.87	0.34	2987
Item 25	0.32	0.47	3061	0.86	0.35	2987
Item 26	0.42	0.49	3061	0.96	0.20	2987
Item 27	0.34	0.47	3061	0.95	0.23	2987
Item 28	0.34	0.47	3061	0.91	0.28	2987

Item 29	0.36	0.48	3061	0.91	0.28	2987
Item 30	0.32	0.47	3061	0.70	0.46	2987
Item 31	0.60	0.49	3061	0.98	0.15	2987
Item 32	0.47	0.50	3061	0.95	0.22	2987
Item 33	0.40	0.49	3061	0.86	0.35	2987
Item 34	0.21	0.41	3061	0.91	0.29	2987
Item 35	0.18	0.38	3061	0.68	0.47	2987
Item 36	0.42	0.49	3061	0.97	0.18	2987
Item 37	0.42	0.49	3061	0.98	0.13	2987
Item 38	0.23	0.42	3061	0.77	0.42	2987
Item 39	0.30	0.46	3061	0.73	0.45	2987
Item 40	0.14	0.35	3061	0.38	0.48	2987
Item 41	0.50	0.50	3061	0.98	0.15	2987
Item 42	0.25	0.43	3061	0.91	0.28	2987
Item 43	0.26	0.44	3061	0.85	0.36	2987
Item 44	0.24	0.43	3061	0.86	0.34	2987
Item 45	0.16	0.36	3061	0.28	0.45	2987

Table 22

Item Statistics of Students for Grade 8 CCSS Math Fall Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.24	0.43	2726	0.62	0.48	2678
Item 2	0.27	0.44	2726	0.56	0.50	2678
Item 3	0.42	0.49	2726	0.71	0.46	2678
Item 4	0.28	0.45	2726	0.69	0.46	2678
Item 5	0.29	0.45	2726	0.74	0.44	2678
Item 6	0.16	0.37	2726	0.55	0.50	2678
Item 7	0.32	0.47	2726	0.68	0.47	2678
Item 8	0.22	0.41	2726	0.38	0.49	2678
Item 9	0.27	0.45	2726	0.41	0.49	2678
Item 10	0.42	0.49	2726	0.91	0.29	2678
Item 11	0.33	0.47	2726	0.58	0.49	2678
Item 12	0.35	0.48	2726	0.77	0.42	2678
Item 13	0.27	0.44	2726	0.66	0.47	2678
Item 14	0.38	0.49	2726	0.70	0.46	2678
Item 15	0.43	0.50	2726	0.87	0.33	2678
Item 16	0.33	0.47	2726	0.75	0.43	2678
Item 17	0.36	0.48	2726	0.74	0.44	2678
Item 18	0.17	0.38	2726	0.78	0.42	2678
Item 19	0.34	0.47	2726	0.69	0.46	2678
Item 20	0.24	0.43	2726	0.59	0.49	2678
Item 21	0.33	0.47	2726	0.77	0.42	2678
Item 22	0.34	0.47	2726	0.77	0.42	2678
Item 23	0.22	0.41	2726	0.70	0.46	2678
Item 24	0.28	0.45	2726	0.89	0.32	2678
Item 25	0.31	0.46	2726	0.70	0.46	2678
Item 26	0.49	0.50	2726	0.95	0.22	2678
Item 27	0.32	0.47	2726	0.81	0.40	2678
Item 28	0.25	0.43	2726	0.91	0.29	2678

Item 29	0.21	0.40	2726	0.75	0.43	2678
Item 30	0.20	0.40	2726	0.63	0.48	2678
Item 31	0.44	0.50	2726	0.93	0.26	2678
Item 32	0.42	0.49	2726	0.92	0.27	2678
Item 33	0.30	0.46	2726	0.90	0.30	2678
Item 34	0.31	0.46	2726	0.80	0.40	2678
Item 35	0.20	0.40	2726	0.80	0.40	2678
Item 36	0.43	0.50	2726	0.83	0.37	2678
Item 37	0.41	0.49	2726	0.92	0.27	2678
Item 38	0.28	0.45	2726	0.92	0.28	2678
Item 39	0.25	0.44	2726	0.62	0.49	2678
Item 40	0.12	0.33	2726	0.62	0.48	2678
Item 41	0.61	0.49	2726	0.98	0.13	2678
Item 42	0.39	0.49	2726	0.95	0.22	2678
Item 43	0.32	0.47	2726	0.79	0.41	2678
Item 44	0.28	0.45	2726	0.78	0.41	2678
Item 45	0.20	0.40	2726	0.45	0.50	2678

Table 23

Item Statistics of Students for Grade 8 CCSS Math Winter Benchmark

	27th percentile and below			73rd percentile and above		
	M	*SD*	*N*	*M*	*SD*	*N*
Item 1	0.67	0.47	2523	0.98	0.16	2802
Item 2	0.33	0.47	2523	0.91	0.29	2802
Item 3	0.34	0.48	2523	0.79	0.41	2802
Item 4	0.43	0.50	2523	0.78	0.41	2802
Item 5	0.28	0.45	2523	0.72	0.45	2802
Item 6	0.17	0.38	2523	0.57	0.50	2802
Item 7	0.70	0.46	2523	0.97	0.18	2802
Item 8	0.48	0.50	2523	0.85	0.36	2802
Item 9	0.41	0.49	2523	0.92	0.28	2802
Item 10	0.55	0.50	2523	0.93	0.26	2802
Item 11	0.33	0.47	2523	0.75	0.44	2802
Item 12	0.27	0.44	2523	0.51	0.50	2802
Item 13	0.49	0.50	2523	0.93	0.25	2802
Item 14	0.38	0.49	2523	0.81	0.40	2802
Item 15	0.33	0.47	2523	0.84	0.37	2802
Item 16	0.30	0.46	2523	0.59	0.49	2802
Item 17	0.23	0.42	2523	0.58	0.49	2802
Item 18	0.40	0.49	2523	0.80	0.40	2802
Item 19	0.36	0.48	2523	0.90	0.30	2802
Item 20	0.34	0.47	2523	0.72	0.45	2802
Item 21	0.50	0.50	2523	0.95	0.23	2802
Item 22	0.41	0.49	2523	0.91	0.29	2802
Item 23	0.29	0.46	2523	0.74	0.44	2802
Item 24	0.24	0.42	2523	0.79	0.41	2802
Item 25	0.28	0.45	2523	0.57	0.49	2802
Item 26	0.37	0.48	2523	0.88	0.33	2802
Item 27	0.37	0.48	2523	0.89	0.31	2802
Item 28	0.33	0.47	2523	0.91	0.29	2802

Item 29	0.24	0.43	2523	0.70	0.46	2802
Item 30	0.27	0.45	2523	0.76	0.43	2802
Item 31	0.50	0.50	2523	0.97	0.18	2802
Item 32	0.36	0.48	2523	0.86	0.35	2802
Item 33	0.42	0.49	2523	0.82	0.38	2802
Item 34	0.38	0.49	2523	0.94	0.25	2802
Item 35	0.31	0.46	2523	0.92	0.27	2802
Item 36	0.48	0.50	2523	0.96	0.19	2802
Item 37	0.50	0.50	2523	0.98	0.12	2802
Item 38	0.31	0.46	2523	0.94	0.23	2802
Item 39	0.33	0.47	2523	0.79	0.41	2802
Item 40	0.15	0.35	2523	0.48	0.50	2802
Item 41	0.63	0.48	2523	0.99	0.12	2802
Item 42	0.49	0.50	2523	0.96	0.20	2802
Item 43	0.39	0.49	2523	0.87	0.34	2802
Item 44	0.28	0.45	2523	0.94	0.23	2802
Item 45	0.16	0.37	2523	0.71	0.45	2802

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