Pre-Formatted Reports: Benchmark Test Item Analysis - New Format

Data Selections

Institution(s): All School Types,All Schools
Benchmark Administration: 10/28/14, 2014-2015 Benchmark 1 Math4
Trend Profile: 2014-2015
Subject: Mathematics
Test Focus: Mathematics
Test Level: All Benchmark Test Levels
Test Category: District Benchmark
Grade: All Grade Levels
Enrollment: Current

Number of questions: 33
Number of test-taking students: 1506

Student Responses

Question - Type	Correct		Incorrect	Most Common Mistake		Point Value	Points Achieved / Possible	P-Value/ Item Mean	Discrimination
	Rate	Value	Total Rate	Rate	Value				
1 - Multiple Choice	83%	B	17%	13%	A	1	1243 / 1506	0.81	0.43
2 - Multiple Choice	60%	A	40%	21%	D	1	903 / 1506	0.59	0.33
3 - Multiple Choice	19%	C	81%	39%	B	1	281 / 1506	0.17	0.39
4 - Multiple Choice	35%	C	65%	32%	A	1	528 / 1506	0.28	0.57
5 - Multiple Choice	64%	D	36%	17%	B	1	970 / 1506	0.61	0.49
6 - Multiple Choice	69%	B	31%	16%	A	1	1038 / 1506	0.67	0.51
7 - Multiple Choice	59%	A	41%	16%	B	1	887 / 1506	0.60	0.38
8 - Multiple Choice	50%	D	50%	20%	A	1	747 / 1506	0.50	0.46
9 - Multiple Choice	64%	B	36%	16%	D	1	957 / 1506	0.61	0.57
10 - Multiple Choice	65%	A	35%	17%	C	1	979 / 1506	0.65	0.43
11 - Multiple Choice	71%	B	29%	15%	D	1	1071 / 1506	0.66	0.63
12 - Multiple Choice	79%	A	21%	10%	B	1	1191 / 1506	0.77	0.51
13 - Multiple Choice	43%	C	57%	26%	A	1	641 / 1506	0.41	0.37
14 - Multiple Choice	60%	C	40%	19%	A	1	907 / 1506	0.59	0.41
15 - Multiple Choice	46%	B	54%	46%	A	1	700 / 1506	0.45	0.36
16 - Multiple Choice	47%	D	53%	26%	A	1	702 / 1506	0.44	0.50
17 - Multiple Choice	54%	A	46%	28%	B	1	815 / 1506	0.52	0.39
18 - Multiple Choice	21%	A	79%	40%	C	1	319 / 1506	0.20	0.39

Report run by: Eller, Sally on 11/18/2014
Published by: n/a on 7/31/2007 to Iredell-Statesville Schools Report Bank

19 - Multiple Choice	29%	B	71%	60%	C	1	433 / 1506	0.24	0.36
20 - Multiple Choice	42%	C	58%	23%	A	1	625 / 1506	0.40	0.34
21 - Multiple Choice	30%	D	70%	30%	A	1	453 / 1506	0.28	0.26
22 - Multiple Choice	31%	A	69%	40%	D	1	462 / 1506	0.29	0.44
23 - Multiple Choice	87%	C	13%	6%	D	1	1316 / 1506	0.87	0.43
24 - Multiple Choice	75%	B	25%	11%	A	1	1130 / 1506	0.73	0.49
25 - Multiple Choice	86%	A	14%	10%	B	1	1296 / 1506	0.84	0.38
26 - Multiple Choice	74%	B	26%	13%	C	1	1121 / 1506	0.75	0.49
27 - Multiple Choice	61%	C	39%	19%	B	1	920 / 1506	0.60	0.55
28 - Multiple Choice	59%	B	41%	24%	A	1	882 / 1506	0.59	0.53
29 - Multiple Choice	66%	D	34%	15%	B	1	1000 / 1506	0.68	0.52
30 - Multiple Choice	70%	C	30%	12%	D	1	1050 / 1506	0.68	0.56
31 - Multiple Choice	56%	B	44%	19%	D	1	840 / 1506	0.53	0.52
32 - Multiple Choice	54%	C	46%	29%	D	1	815 / 1506	0.53	0.44
33 - Multiple Choice	45%	C	55%	32%	B	1	674 / 1506	0.41	0.40
Summary	56%		44%				**845 / 1506**		

P-value represents an item's difficulty as evaluated by dividing the total number of correct responses by the total number of students tested. P-value is calculated for true/false, multiple choice, gridded or hot spot-single response items.

Item Mean is the average score for student responses to an open response question or to a multi-part question. Item Mean is calculated for inline response, matching or hot spot-multiple selections items.

Discrimination or Item Total Score Correlation is the correlation between the question score and the overall test score and indicates the extent to which success on an item corresponds to success on the test.

Standards Alignment to NC Standards

Question	ID	Standard Description
1 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.1**	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.
2 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.1**	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.
3 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.2**	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Report run by: Eller, Sally on 11/18/2014
Published by: n/a on 7/31/2007 to Iredell-Statesville Schools Report Bank

4 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.2**	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
5 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.3**	Use place value understanding to round multi-digit whole numbers to any place.
6 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.3**	Use place value understanding to round multi-digit whole numbers to any place.
7 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.4**	Fluently add and subtract multi-digit whole numbers using the standard algorithm.
8 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.4**	Fluently add and subtract multi-digit whole numbers using the standard algorithm.
9 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.5**	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
10 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.5**	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
11 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.6**	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
12 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.6**	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
13 - Multiple Choice	**CCSS.Math.Content.4.OA.B.4**	Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.
14 - Multiple Choice	**CCSS.Math.Content.4.OA.B.4**	Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.
15 - Multiple Choice	**CCSS.Math.Content.4.OA.A.1**	Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
16 - Multiple Choice	**CCSS.Math.Content.4.OA.A.1**	Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
17 - Multiple Choice	**CCSS.Math.Content.4.OA.A.1**	Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
18 - Multiple Choice	**CCSS.Math.Content.4.OA.A.2**	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
19 - Multiple Choice	**CCSS.Math.Content.4.OA.A.2**	Multiply or divide to solve word problems involving multiplicative

Report run by: Eller, Sally on 11/18/2014
Published by: n/a on 7/31/2007 to Iredell-Statesville Schools Report Bank

		comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
20 - Multiple Choice	**CCSS.Math.Content.4.OA.A.2**	Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
21 - Multiple Choice	**CCSS.Math.Content.4.OA.A.3**	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
22 - Multiple Choice	**CCSS.Math.Content.4.OA.A.3**	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
23 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.1**	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.
24 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.2**	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
25 - Multiple Choice	**CCSS.Math.Content.4.NBT.A.3**	Use place value understanding to round multi-digit whole numbers to any place.
26 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.4**	Fluently add and subtract multi-digit whole numbers using the standard algorithm.
27 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.5**	Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
28 - Multiple Choice	**CCSS.Math.Content.4.NBT.B.6**	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
29 - Multiple Choice	**CCSS.Math.Content.4.OA.B.4**	Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.
30 - Multiple Choice	**CCSS.Math.Content.4.OA.A.3**	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
31 - Multiple Choice	**CCSS.Math.Content.4.OA.A.3**	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
32 - Multiple Choice	**CCSS.Math.Content.4.OA.A.3**	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in

Report run by: Eller, Sally on 11/18/2014
Published by: n/a on 7/31/2007 to Iredell-Statesville Schools Report Bank

		which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
33 - Multiple Choice	**CCSS.Math.Content.4.OA.A.3**	Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Report run by: Eller, Sally on 11/18/2014
Published by: n/a on 7/31/2007 to Iredell-Statesville Schools Report Bank