

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 Math3
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: 30
 Number of test-taking students: 1492

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	18%	A	82%	74%	B	1	276 / 1492	0.22	0.46
2 - Multiple Choice	70%	A	30%	28%	B	1	1044 / 1492	0.69	0.63
3 - Multiple Choice	69%	D	31%	27%	A	1	1032 / 1492	0.69	0.63
4 - Multiple Choice	68%	D	32%	13%	B	1	1016 / 1492	0.67	0.51
5 - Multiple Choice	45%	C	55%	45%	A	1	664 / 1492	0.42	0.51
6 - Multiple Choice	65%	C	35%	22%	D	1	968 / 1492	0.67	0.47
7 - Multiple Choice	63%	C	37%	20%	A	1	944 / 1492	0.63	0.58
8 - Multiple Choice	70%	B	30%	18%	A	1	1045 / 1492	0.70	0.42
9 - Multiple Choice	45%	C	55%	32%	A	1	672 / 1492	0.44	0.38
10 - Multiple Choice	67%	D	33%	26%	C	1	994 / 1492	0.65	0.64
11 - Multiple Choice	61%	C	39%	27%	D	1	916 / 1492	0.60	0.65
12 - Multiple Choice	69%	B	31%	17%	C	1	1024 / 1492	0.71	0.24
13 - Multiple Choice	31%	A	69%	45%	C	1	469 / 1492	0.30	0.38
14 - Multiple Choice	74%	D	26%	12%	B	1	1098 / 1492	0.75	0.41
15 - Multiple Choice	73%	B	27%	14%	A	1	1082 / 1492	0.74	0.46
16 - Multiple Choice	50%	D	50%	22%	C	1	742 / 1492	0.47	0.53

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17 - Multiple Choice	67%	A	33%	14%	C	1	993 / 1492	0.66	0.40
18 - Multiple Choice	73%	A	27%	15%	D	1	1092 / 1492	0.73	0.53
19 - Multiple Choice	56%	D	44%	23%	B	1	829 / 1492	0.55	0.62
20 - Multiple Choice	63%	C	37%	18%	B	1	933 / 1492	0.65	0.45
21 - Multiple Choice	47%	B	53%	27%	D	1	702 / 1492	0.43	0.56
22 - Multiple Choice	82%	A	18%	6%	C	1	1230 / 1492	0.82	0.46
23 - Multiple Choice	39%	C	61%	43%	B	1	580 / 1492	0.37	0.35
24 - Multiple Choice	45%	C	55%	23%	D	1	674 / 1492	0.46	0.57
25 - Multiple Choice	59%	B	41%	25%	A	1	880 / 1492	0.56	0.55
26 - Multiple Choice	79%	A	21%	11%	B	1	1183 / 1492	0.80	0.45
27 - Multiple Choice	81%	C	19%	9%	D	1	1208 / 1492	0.80	0.42
28 - Multiple Choice	61%	D	39%	15%	B	1	906 / 1492	0.62	0.51
29 - Multiple Choice	61%	D	39%	15%	C	1	907 / 1492	0.58	0.48
30 - Multiple Choice	60%	C	40%	15%	D	1	901 / 1492	0.57	0.65
Summary	60%		40%				900 / 1492		

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.3.NBT.A.2	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
2 - Multiple Choice	CCSS.Math.Content.3.OA.A.1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
3 - Multiple Choice	CCSS.Math.Content.3.OA.A.1	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
4 - Multiple Choice	CCSS.Math.Content.3.MD.B.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
5 - Multiple Choice	CCSS.Math.Content.3.NBT.A.1	Use place value understanding to round whole numbers to the nearest 10

or 100.

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- 6 - Multiple Choice** **CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 7 - Multiple Choice** **CCSS.Math.Content.3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
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- 8 - Multiple Choice** **CCSS.Math.Content.3.OA.A.1** Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
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- 9 - Multiple Choice** **CCSS.Math.Content.3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
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- 10 - Multiple Choice** **CCSS.Math.Content.3.OA.A.1** Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
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- 11 - Multiple Choice** **CCSS.Math.Content.3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
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- 12 - Multiple Choice** **CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 13 - Multiple Choice** **CCSS.Math.Content.3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
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- 14 - Multiple Choice** **CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 15 - Multiple Choice** **CCSS.Math.Content.3.OA.A.1** Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
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- 16 - Multiple Choice** **CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 17 - Multiple Choice** **CCSS.Math.Content.3.OA.A.1** Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
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- 18 - Multiple Choice** **CCSS.Math.Content.3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar

graph might represent 5 pets.

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- 19 - Multiple Choice CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 20 - Multiple Choice CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 21 - Multiple Choice CCSS.Math.Content.3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
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- 22 - Multiple Choice CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 23 - Multiple Choice CCSS.Math.Content.3.MD.C.7** Relate area to the operations of multiplication and addition.
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- 24 - Multiple Choice CCSS.Math.Content.3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
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- 25 - Multiple Choice CCSS.Math.Content.3.OA.A.1** Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5×7 .
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- 26 - Multiple Choice CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 27 - Multiple Choice CCSS.Math.Content.3.MD.A.1** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
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- 28 - Multiple Choice CCSS.Math.Content.3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
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- 29 - Multiple Choice CCSS.Math.Content.3.OA.D.8** Solve two-step word problems using the four operations. 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. This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
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- 30 - Multiple Choice CCSS.Math.Content.3.MD.B.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more"

and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
