

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

### Data Selections

**Institution(s):** All School Types,All Schools  
**Benchmark Administration:** 09/03/14, 2014-2015 Baseline Math Grade 2  
**Trend Profile:** 2014-2015  
**Subject:** Mathematics  
**Test Focus:** Mathematics  
**Test Level:** All Benchmark Test Levels  
**Test Category:** District Benchmark  
**Grade:** All Grade Levels  
**Enrollment:** Total for 2014-2015

Number of questions: 31  
 Number of test-taking students: 1447

### 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	89%	A	11%	10%	B	1	1295 / 1447	0.88	0.34
2 - Multiple Choice	95%	B	5%	2%	A	1	1377 / 1447	0.94	0.36
3 - Multiple Choice	71%	B	29%	11%	A	1	1026 / 1447	0.70	0.48
4 - Multiple Choice	87%	A	13%	6%	B	1	1258 / 1447	0.86	0.40
5 - Multiple Choice	80%	B	20%	15%	A	1	1162 / 1447	0.79	0.39
6 - Multiple Choice	84%	C	16%	8%	D	1	1219 / 1447	0.83	0.57
7 - Multiple Choice	74%	A	26%	12%	B	1	1068 / 1447	0.72	0.50
8 - Multiple Choice	46%	A	54%	34%	D	1	671 / 1447	0.46	0.51
9 - Multiple Choice	85%	B	15%	6%	A	1	1229 / 1447	0.83	0.54
10 - Multiple Choice	77%	C	23%	12%	A	1	1113 / 1447	0.76	0.56
11 - Multiple Choice	87%	A	13%	6%	D	1	1265 / 1447	0.86	0.45
12 - Multiple Choice	53%	B	47%	32%	D	1	760 / 1447	0.52	0.53
13 - Multiple Choice	53%	C	47%	27%	B	1	773 / 1447	0.52	0.54
14 - Multiple Choice	88%	B	12%	6%	A	1	1276 / 1447	0.87	0.47

# NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION

PreFormatted Reports

15 - Multiple Choice	83%	C	17%	10%	A	1	1207 / 1447	0.82	0.48
16 - Multiple Choice	63%	C	37%	16%	A	1	915 / 1447	0.62	0.56
17 - Multiple Choice	91%	A	9%	4%	D	1	1322 / 1447	0.90	0.32
18 - Multiple Choice	79%	B	21%	10%	C	1	1140 / 1447	0.78	0.40
19 - Multiple Choice	68%	D	32%	16%	C	1	988 / 1447	0.67	0.58
20 - Multiple Choice	67%	C	33%	15%	A	1	975 / 1447	0.66	0.58
21 - Multiple Choice	81%	B	19%	7%	C	1	1174 / 1447	0.80	0.57
22 - Multiple Choice	60%	D	40%	23%	B	1	867 / 1447	0.58	0.61
23 - Multiple Choice	76%	B	24%	14%	C	1	1096 / 1447	0.75	0.46
24 - Multiple Choice	79%	D	21%	14%	A	1	1139 / 1447	0.77	0.60
25 - Multiple Choice	84%	A	16%	6%	B	1	1210 / 1447	0.82	0.50
26 - Multiple Choice	65%	D	35%	14%	A	1	935 / 1447	0.63	0.57
27 - Multiple Choice	77%	C	23%	9%	A	1	1111 / 1447	0.76	0.57
28 - Multiple Choice	68%	B	32%	11%	A	1	978 / 1447	0.66	0.53
29 - Multiple Choice	71%	B	29%	10%	C	1	1029 / 1447	0.70	0.41
30 - Multiple Choice	46%	C	54%	29%	A	1	672 / 1447	0.46	0.55
31 - Multiple Choice	85%	D	15%	8%	A	1	1229 / 1447	0.83	0.51
<b>Summary</b>	<b>75%</b>		<b>25%</b>				<b>1080 / 1447</b>		

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
<b>1 - Multiple Choice</b>	<b>CCSS.Math.Content.1.MD.B.3</b>	Tell and write time in hours and half-hours using analog and digital clocks.
<b>2 - Multiple Choice</b>	<b>CCSS.Math.Content.1.NBT.B.2</b>	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

For additional reporting and analysis in School and District Data, please visit <https://homebase.schoolnet.com/490>

Page 2 of 5

Report generated: 6/14/2015

*This report is confidential and for informal purposes*

- 
- 3 - Multiple Choice** **CCSS.Math.Content.1.MD.A.2** Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
- 
- 4 - Multiple Choice** **CCSS.Math.Content.1.OA.D.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 + ? = 11$ ,  $5 = \_ - 3$ ,  $6 + 6 = \_$ .
- 
- 5 - Multiple Choice** **CCSS.Math.Content.1.NBT.B.3** Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .
- 
- 6 - Multiple Choice** **CCSS.Math.Content.1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 7 - Multiple Choice** **CCSS.Math.Content.1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 8 - Multiple Choice** **CCSS.Math.Content.1.MD.C.4** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
- 
- 9 - Multiple Choice** **CCSS.Math.Content.1.MD.C.4** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
- 
- 10 - Multiple Choice** **CCSS.Math.Content.1.MD.C.4** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
- 
- 11 - Multiple Choice** **CCSS.Math.Content.1.G.A.2** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as "right rectangular prism."
- 
- 12 - Multiple Choice** **CCSS.Math.Content.1.NBT.B.2** Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
- 
- 13 - Multiple Choice** **CCSS.Math.Content.1.NBT.B.3** Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .
- 
- 14 - Multiple Choice** **CCSS.Math.Content.1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 15 - Multiple Choice** **CCSS.Math.Content.1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).
- 
- 16 - Multiple Choice** **CCSS.Math.Content.1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving

situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

- 
- 17 - Multiple Choice CCSS.Math.Content.1.NBT.A.1** Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
- 
- 18 - Multiple Choice CCSS.Math.Content.1.OA.C.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 
- 19 - Multiple Choice CCSS.Math.Content.1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 20 - Multiple Choice CCSS.Math.Content.1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 21 - Multiple Choice CCSS.Math.Content.1.OA.C.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).
- 
- 22 - Multiple Choice CCSS.Math.Content.1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 23 - Multiple Choice CCSS.Math.Content.1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 24 - Multiple Choice CCSS.Math.Content.1.G.A.3** Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.
- 
- 25 - Multiple Choice CCSS.Math.Content.1.OA.B.4** Understand subtraction as an unknown-addend problem. For example, subtract  $10 - 8$  by finding the number that makes 10 when added to 8.
- 
- 26 - Multiple Choice CCSS.Math.Content.1.OA.A.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 27 - Multiple Choice CCSS.Math.Content.1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- 
- 28 - Multiple Choice CCSS.Math.Content.1.NBT.B.3** Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols  $>$ ,  $=$ , and  $<$ .
- 
- 29 - Multiple Choice CCSS.Math.Content.1.NBT.C.4** Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose

---

a ten.

---

**30 - Multiple Choice CCSS.Math.Content.1.OA.A.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

---

**31 - Multiple Choice CCSS.Math.Content.1.NBT.B.2** Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:

---