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 6th Math
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: 20
Number of test-taking students: 1525

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	86%	B	14%	7%	A	1	1317 / 1525		
2 - Multiple Choice	57%	B	43%	21%	A	1	866 / 1525		
3 - Multiple Choice	68%	D	32%	12%	B	1	1044 / 1525		
4 - Multiple Choice	33%	B	67%	28%	A	1	508 / 1525		
5 - Multiple Choice	76%	B	24%	10%	C	1	1155 / 1525		
6 - Multiple Choice	77%	B	23%	8%	C	1	1170 / 1525		
7 - Multiple Choice	72%	B	28%	11%	A	1	1093 / 1525		
8 - Multiple Choice	50%	A	50%	22%	C	1	760 / 1525		
9 - Multiple Choice	80%	B	20%	15%	A	1	1216 / 1525		
10 - Multiple Choice	40%	A	60%	40%	B	1	616 / 1525		
11 - Multiple Choice	59%	D	41%	19%	C	1	899 / 1525		
12 - Multiple Choice	53%	B	47%	20%	C	1	806 / 1525		
13 - Multiple Choice	74%	B	26%	11%	D	1	1131 / 1525		
14 - Multiple Choice	47%	B	53%	27%	C	1	710 / 1525		
15 - Multiple Choice	82%	D	18%	7%	B	1	1243 / 1525		
16 - Multiple Choice	60%	B	40%	19%	C	1	919 / 1525		

17 - Multiple Choice	73%	C	27%	11%	A	1	1108 / 1525		
18 - Multiple Choice	79%	C	21%	9%	A	1	1204 / 1525		
19 - Multiple Choice	46%	C	54%	38%	A	1	695 / 1525		
20 - Multiple Choice	62%	D	38%	20%	B	1	949 / 1525		
Summary	**64%**		**36%**				**970 / 1525**		

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.5.NBT.B.5**	Fluently multiply multi-digit whole numbers using the standard algorithm.
2 - Multiple Choice	**CCSS.Math.Content.5.NF.A.1**	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
3 - Multiple Choice	**CCSS.Math.Content.5.NF.A.2**	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.
4 - Multiple Choice	**CCSS.Math.Content.5.NF.B.4a**	Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)
5 - Multiple Choice	**CCSS.Math.Content.5.NF.B.4a**	Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)
6 - Multiple Choice	**CCSS.Math.Content.4.MD.A.3**	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.
7 - Multiple Choice	**CCSS.Math.Content.4.MD.A.3**	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.
8 - Multiple Choice	**CCSS.Math.Content.4.MD.A.3**	Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

9 - 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.
10 - 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.
11 - Multiple Choice	**CCSS.Math.Content.5.NBT.B.6**	Find whole-number quotients of whole numbers with up to four-digit dividends and two-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.5.NBT.B.7**	Add, subtract, multiply, and divide decimals to hundredths, 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.
13 - Multiple Choice	**CCSS.Math.Content.5.G.A.1**	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
14 - Multiple Choice	**CCSS.Math.Content.5.NF.B.7a**	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.
15 - Multiple Choice	**CCSS.Math.Content.5.NBT.B.7**	Add, subtract, multiply, and divide decimals to hundredths, 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.
16 - Multiple Choice	**CCSS.Math.Content.5.NBT.A.4**	Use place value understanding to round decimals to any place.
17 - Multiple Choice	**CCSS.Math.Content.5.NBT.B.7**	Add, subtract, multiply, and divide decimals to hundredths, 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.
18 - Multiple Choice	**CCSS.Math.Content.5.MD.B.2**	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.
19 - Multiple Choice	**CCSS.Math.Content.5.MD.B.2**	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

20 - Multiple Choice	**CCSS.Math.Content.5.OA.A.1**	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.