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

Data Selections

Institution(s): Middle School,All Schools
Benchmark Administration: 03/24/15, 2014-15 BA2 6th Math Calculator Active
Trend Profile: 2014-2015
Subject: Mathematics
Test Focus: All Test Focuses
Test Level: 06
Test Category: District Benchmark
Grade: 06
Enrollment: Current

Number of questions: 18
Number of test-taking students: 1539

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	37%	D	63%	34%	C	1	568 / 1539	0.37	0.45
2 - Multiple Choice	50%	D	50%	19%	A	1	764 / 1539	0.50	0.44
3 - Multiple Choice	49%	B	51%	23%	D	1	759 / 1539	0.49	0.44
4 - Multiple Choice	53%	D	47%	33%	C	1	809 / 1539	0.53	0.36
5 - Multiple Choice	22%	D	78%	29%	A	1	334 / 1539	0.22	0.34
6 - Multiple Choice	59%	C	41%	22%	D	1	913 / 1539	0.59	0.48
7 - Multiple Choice	27%	D	73%	27%	C	1	418 / 1539	0.27	0.35
8 - Multiple Choice	48%	B	52%	21%	A	1	741 / 1539	0.48	0.35
9 - Multiple Choice	45%	D	55%	26%	C	1	693 / 1539	0.45	0.37
10 - Multiple Choice	37%	A	63%	23%	B	1	563 / 1539	0.37	0.24
11 - Multiple Choice	34%	A	66%	26%	B	1	530 / 1539	0.34	0.42
12 - Multiple Choice	41%	A	59%	30%	B	1	636 / 1539	0.41	0.50
13 - Multiple Choice	28%	B	72%	39%	C	1	429 / 1539	0.28	0.16
14 - Multiple Choice	35%	D	65%	34%	C	1	541 / 1539	0.35	0.48
15 - Multiple Choice	28%	C	72%	28%	B	1	432 / 1539	0.28	0.33
16 - Multiple Choice	20%	B	80%	49%	C	1	311 / 1539	0.21	0.31
17 - Multiple Choice	61%	B	39%	17%	A	1	935 / 1539	0.61	0.49
18 - Multiple Choice	51%	D	49%	23%	B	1	784 / 1539	0.51	0.36
Summary	40%		60%				**620 / 1539**		

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 Common Core State Standards

Question	ID	Standard Description
1 - Multiple Choice	**CCSS.Math.Content.6.G.A.3**	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
2 - Multiple Choice	**CCSS.Math.Content.6.EE.B.7**	Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q and x are all nonnegative rational numbers.
3 - Multiple Choice	**CCSS.Math.Content.6.RP.A.3b**	Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?
4 - Multiple Choice	**CCSS.Math.Content.6.RP.A.1**	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."
5 - Multiple Choice	**CCSS.Math.Content.6.NS.C.7a**	Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret -3 > -7 as a statement that -3 is located to the right of -7 on a number line oriented from left to right.
6 - Multiple Choice	**CCSS.Math.Content.6.EE.B.7**	Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q and x are all nonnegative rational numbers.
7 - Multiple Choice	**CCSS.Math.Content.6.G.A.1**	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
8 - Multiple Choice	**CCSS.Math.Content.6.G.A.3**	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
9 - Multiple Choice	**CCSS.Math.Content.6.NS.A.1**	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?
10 - Multiple Choice	**CCSS.Math.Content.6.G.A.2**	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = l w h and V = b h to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

11 - Multiple Choice	**CCSS.Math.Content.6.G.A.4**	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
12 - Multiple Choice	**CCSS.Math.Content.6.NS.C.7b**	Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write -3 °C > -7 °C to express the fact that -3 °C is warmer than -7 °C.
13 - Multiple Choice	**CCSS.Math.Content.6.RP.A.3c**	Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
14 - Multiple Choice	**CCSS.Math.Content.6.EE.A.1**	Write and evaluate numerical expressions involving whole-number exponents.
15 - Multiple Choice	**CCSS.Math.Content.6.G.A.4**	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
16 - Multiple Choice	**CCSS.Math.Content.6.RP.A.2**	Understand the concept of a unit rate a/b associated with a ratio a:b with b is not equal to 0, and use rate language in the context of a ratio relationship. Expectations for unit rates in this grade are limited to non-complex fractions. For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."
17 - Multiple Choice	**CCSS.Math.Content.6.NS.B.3**	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
18 - Multiple Choice	**CCSS.Math.Content.6.EE.A.3**	Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.