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 7th Math Calculator Active
Trend Profile: 2014-2015
Subject: Mathematics
Test Focus: All Test Focuses
Test Level: 07
Test Category: District Benchmark
Grade: 07
Enrollment: Current

Number of questions: 24
Number of test-taking students: 1542

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	28%	A	72%	42%	B	1	428 / 1542	0.28	0.26
2 - Multiple Choice	22%	C	78%	42%	A	1	332 / 1542	0.22	0.24
3 - Multiple Choice	28%	B	72%	27%	D	1	428 / 1542	0.28	0.26
4 - Multiple Choice	28%	A	72%	28%	C	1	436 / 1542	0.28	0.45
5 - Multiple Choice	21%	A	79%	51%	B	1	328 / 1542	0.21	0.20
6 - Multiple Choice	71%	B	29%	12%	C	1	1093 / 1542	0.71	0.45
7 - Multiple Choice	35%	C	65%	28%	D	1	546 / 1542	0.35	0.29
8 - Multiple Choice	34%	D	66%	29%	A	1	529 / 1542	0.34	0.41
9 - Multiple Choice	53%	A	47%	26%	B	1	810 / 1542	0.52	0.49
10 - Multiple Choice	11%	C	89%	67%	A	1	177 / 1542	0.11	0.31
11 - Multiple Choice	58%	C	42%	21%	D	1	888 / 1542	0.58	0.49
12 - Multiple Choice	24%	D	76%	30%	A	1	371 / 1542	0.24	0.41
13 - Multiple Choice	38%	B	62%	28%	D	1	586 / 1542	0.38	0.38
14 - Multiple Choice	38%	C	62%	34%	B	1	589 / 1542	0.38	0.38
15 - Multiple Choice	43%	C	57%	28%	A	1	668 / 1542	0.43	0.29
16 - Multiple Choice	40%	C	60%	24%	D	1	620 / 1542	0.40	0.36
17 - Multiple Choice	47%	B	53%	25%	D	1	726 / 1542	0.47	0.42
18 - Multiple Choice	33%	C	67%	36%	A	1	507 / 1542	0.33	0.28
19 - Multiple Choice	43%	B	57%	23%	A	1	667 / 1542	0.43	0.40
20 - Multiple Choice	44%	C	56%	23%	B	1	672 / 1542	0.44	0.41

21 - Multiple Choice	47%	A	53%	25%	C	1	731 / 1542	0.47	0.37
22 - Multiple Choice	25%	D	75%	30%	B	1	381 / 1542	0.25	0.51
23 - Multiple Choice	68%	B	32%	13%	A	1	1049 / 1542	0.68	0.40
24 - Multiple Choice	27%	B	73%	40%	C	1	410 / 1542	0.27	0.29
Summary	38%		62%				**582 / 1542**		

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.7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
2 - Multiple Choice	**CCSS.Math.Content.7.G.A.1**	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
3 - Multiple Choice	**CCSS.Math.Content.7.EE.A.1**	Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
4 - Multiple Choice	**CCSS.Math.Content.7.G.A.1**	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
5 - Multiple Choice	**CCSS.Math.Content.7.G.B.4**	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
6 - Multiple Choice	**CCSS.Math.Content.7.RP.A.1**	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2 miles per hour.
7 - Multiple Choice	**CCSS.Math.Content.7.NS.A.3**	Solve real-world and mathematical problems involving the four operations with rational numbers. Computations with rational numbers extend the rules for manipulating fractions to complex fractions.
8 - Multiple Choice	**CCSS.Math.Content.7.EE.A.1**	Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
9 - Multiple Choice	**CCSS.Math.Content.7.NS.A.1c**	Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
10 - Multiple Choice	**CCSS.Math.Content.7.EE.A.2**	Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."
11 - Multiple Choice	**CCSS.Math.Content.7.NS.A.1**	Apply and extend previous understandings of addition and subtraction to

		add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
12 - Multiple Choice	**CCSS.Math.Content.7.EE.A.1**	Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
13 - Multiple Choice	**CCSS.Math.Content.7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
14 - Multiple Choice	**CCSS.Math.Content.7.EE.B.4**	Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
15 - Multiple Choice	**CCSS.Math.Content.7.G.B.4**	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
16 - Multiple Choice	**CCSS.Math.Content.7.G.B.4**	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
17 - Multiple Choice	**CCSS.Math.Content.7.G.A.1**	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
18 - Multiple Choice	**CCSS.Math.Content.7.G.A.1**	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
19 - Multiple Choice	**CCSS.Math.Content.7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
20 - Multiple Choice	**CCSS.Math.Content.7.EE.B.3**	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
21 - Multiple Choice	**CCSS.Math.Content.7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
22 - Multiple Choice	**CCSS.Math.Content.7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
23 - Multiple Choice	**CCSS.Math.Content.7.RP.A.1**	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2 miles per hour.
24 - Multiple Choice	**CCSS.Math.Content.7.RP.A.3**	Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.