NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION IN TRACE Reports

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 Inactive

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: 12

Number of test-taking students: 1534

Student Responses

	Correct		Incorrect		st Common Mistake		Points	P- Value/	
Question - Type	Rate	Value	Total Rate	Rate	Value	Point Value	Achieved / Possible	Item Mean	Discriminati on
1 - Multiple Choice	69%	A	31%	17%	D	1	1065 / 1534	0.69	0.59
2 - Multiple Choice	70%	С	30%	17%	В	1	1067 / 1534	0.69	0.54
3 - Multiple Choice	61%	С	39%	21%	В	1	941 / 1534	0.61	0.57
4 - Multiple Choice	52%	С	48%	18%	D	1	802 / 1534	0.52	0.55
5 - Multiple Choice	49%	В	51%	32%	Α	1	744 / 1534	0.49	0.39
6 - Multiple Choice	53%	Α	47%	25%	С	1	816 / 1534	0.53	0.51
7 - Multiple Choice	52%	D	48%	26%	Α	1	799 / 1534	0.52	0.55
8 - Multiple Choice	36%	С	64%	38%	Α	1	556 / 1534	0.36	0.51
9 - Multiple Choice	18%	D	82%	54%	Α	1	278 / 1534	0.18	0.41
10 - Multiple Choice	61%	С	39%	19%	D	1	942 / 1534	0.61	0.45
11 - Gridded	14%, 0%, 0%	16, 0000016, 16.00000	86%	34%	8	1	212 / 1534	0.14	0.52
12 - Gridded	22%, 1%, 0%, 0%, 0%, 0%, 0%,	9.25, 37/4, 222/24, 9 1/4, 9 6/24, 00009.25, 009.25, 9 3/12	76 %	9%	9	1	369 / 1534	0.24	0.52
Summary	47%		53%				716 / 1534		

P-value represents an item's difficulty as evaluated by dividing the total number of correct responses by the total number

NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION IN TRACE Reports

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.

Ouestion	ID Standard Description				
Question					
1 - 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, ther that rate, how many lawns could be mowed in 35 hours? At what rat were lawns being mowed?				
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 q are all nonnegative rational numbers.				
3 - 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.				
4 - Multiple Choice	CCSS.Math.Content.6.EE.C.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.				
5 - 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.				
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 are all nonnegative rational numbers.				
7 - Multiple Choice	CCSS.Math.Content.6.NS.C.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.				
8 - 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 $V = I \ w \ h$ 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.				
9 - Multiple Choice	CCSS.Math.Content.6.EE.B.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.				
10 - Multiple Choice	e 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."				
11 - Gridded	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				

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

NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION Mented Reports

and mathematical problems.

12 - Gridded

CCSS.Math.Content.6.NS.B.2 Fluently divide multi-digit numbers using the standard algorithm.