

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

Data Selections

Institution(s): All School Types, All Schools
Benchmark Administration: 10/27/14, 2014-15 BA1 Yearlong HS Math I Calculator Active
Trend Profile: 2014-2015
Subject: Mathematics
Test Focus: Mathematics
Test Level: All Benchmark Test Levels
Test Category: District Benchmark
Grade: All Grade Levels
Enrollment: Current

Number of questions: 20
 Number of test-taking students: 880

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	16%	D	84%	33%	C	1	140 / 880	0.16	0.19
2 - Multiple Choice	31%	D	69%	33%	B	1	274 / 880	0.31	0.36
3 - Multiple Choice	50%	C	50%	24%	A	1	440 / 880	0.50	0.47
4 - Multiple Choice	35%	A	65%	32%	C	1	307 / 880	0.35	0.39
5 - Multiple Choice	48%	C	52%	34%	B	1	423 / 880	0.48	0.44
6 - Multiple Choice	50%	B	50%	29%	A	1	437 / 880	0.50	0.49
7 - Multiple Choice	15%	A	85%	46%	B	1	132 / 880	0.15	-0.02
8 - Multiple Choice	51%	D	49%	31%	C	1	446 / 880	0.51	0.45
9 - Multiple Choice	17%	B	83%	58%	C	1	147 / 880	0.17	0.05
10 - Multiple Choice	43%	A	57%	26%	B	1	381 / 880	0.43	0.45
11 - Multiple Choice	30%	A	70%	26%	C	1	268 / 880	0.30	0.35
12 - Multiple Choice	29%	B	71%	31%	C	1	256 / 880	0.29	0.16
13 - Multiple Choice	23%	C	77%	33%	D	1	200 / 880	0.23	0.11
14 - Multiple Choice	70%	B	30%	12%	A	1	618 / 880	0.70	0.41
15 - Multiple Choice	51%	B	49%	18%	A	1	451 / 880	0.51	0.43
16 - Multiple Choice	45%	C	55%	18%	A	1	394 / 880	0.45	0.43
17 - Multiple Choice	54%	A	46%	15%	B	1	472 / 880	0.54	0.39
18 - Multiple Choice	32%	B	68%	30%	C	1	284 / 880	0.32	0.33
19 - Multiple Choice	34%	A	66%	36%	B	1	302 / 880	0.34	0.34
20 - Multiple Choice	46%	D	54%	22%	C	1	402 / 880	0.46	0.47

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Summary	38%	62%			339 / 880
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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.HSS-ID.A.2	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
2 - Multiple Choice	CCSS.Math.Content.HSS-ID.B.5	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
3 - Multiple Choice	CCSS.Math.Content.HSN-Q.A.2	Define appropriate quantities for the purpose of descriptive modeling.
4 - Multiple Choice	CCSS.Math.Content.HSN-Q.A.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
5 - Multiple Choice	CCSS.Math.Content.HSN-Q.A.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
6 - Multiple Choice	CCSS.Math.Content.HSN-Q.A.3	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
7 - Multiple Choice	CCSS.Math.Content.HSN-Q.A.1	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
8 - Multiple Choice	CCSS.Math.Content.HSN-Q.A.2	Define appropriate quantities for the purpose of descriptive modeling.
9 - Multiple Choice	CCSS.Math.Content.HSS-ID.B.6	Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
10 - Multiple Choice	CCSS.Math.Content.HSS-ID.A.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
11 - Multiple Choice	CCSS.Math.Content.HSS-ID.C.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.
12 - Multiple Choice	CCSS.Math.Content.HSS-ID.C.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
13 - Multiple Choice	CCSS.Math.Content.HSS-ID.C.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.
14 - Multiple Choice	CCSS.Math.Content.HSF-BF.A.1	Write a function that describes a relationship between two quantities.
15 - Multiple Choice	CCSS.Math.Content.HSS-ID.B.6	Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
16 - Multiple Choice	CCSS.Math.Content.HSF-BF.A.1	Write a function that describes a relationship between two quantities.
17 - Multiple Choice	CCSS.Math.Content.HSF-BF.A.1	Write a function that describes a relationship between two quantities.
18 - Multiple Choice	CCSS.Math.Content.HSF-IF.B.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch

graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

19 - Multiple Choice CCSS.Math.Content.HSF-IF.B.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

20 - Multiple Choice CCSS.Math.Content.HSS-ID.A.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
