

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 Mid-Semester Physics
Trend Profile: 2014-2015
Subject: Life and Physical Sciences
Test Focus: Life and Physical Sciences
Test Level: All Benchmark Test Levels
Test Category: District Benchmark
Grade: All Grade Levels
Enrollment: Current

Number of questions: 50
 Number of test-taking students: 59

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	51%	C	49%	27%	D	1	30 / 59	0.51	0.17
2 - Multiple Choice	86%	A	14%	8%	D	1	51 / 59	0.86	0.37
3 - Multiple Choice	71%	C	29%	19%	A	1	42 / 59	0.71	0.17
4 - Multiple Choice	64%	B	36%	25%	C	1	38 / 59	0.64	0.50
5 - Multiple Choice	63%	A	37%	20%	C	1	37 / 59	0.63	0.11
6 - Multiple Choice	73%	C	27%	19%	A	1	43 / 59	0.73	0.33
7 - Multiple Choice	100%	A	0%			1	59 / 59	1.00	
8 - Multiple Choice	61%	B	39%	19%	A	1	36 / 59	0.61	0.32
9 - Multiple Choice	54%	C	46%	29%	B	1	32 / 59	0.54	0.45
10 - Multiple Choice	49%	C	51%	29%	B	1	29 / 59	0.49	0.37
11 - Multiple Choice	86%	A	14%	8%	B	1	51 / 59	0.86	0.33
12 - Multiple Choice	68%	A	32%	31%	B	1	40 / 59	0.68	0.24
13 - Multiple Choice	69%	D	31%	20%	B	1	41 / 59	0.69	0.49
14 - Multiple Choice	86%	C	14%	12%	A	1	51 / 59	0.86	0.18
15 - Multiple Choice	63%	D	37%	20%	C	1	37 / 59	0.63	0.58
16 - Multiple Choice	47%	B	53%	22%	A	1	28 / 59	0.47	0.39
17 - Multiple Choice	49%	A	51%	27%	B	1	29 / 59	0.49	0.44
18 - Multiple Choice	39%	C	61%	24%	B	1	23 / 59	0.39	0.41
19 - Multiple Choice	49%	C	51%	29%	B	1	29 / 59	0.49	0.40
20 - Multiple Choice	73%	B	27%	12%	C	1	43 / 59	0.73	0.46

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21 - Multiple Choice	71%	D	29%	12%	B	1	42 / 59	0.71	0.45
22 - Multiple Choice	46%	D	54%	27%	B	1	27 / 59	0.46	0.42
23 - Multiple Choice	54%	B	46%	20%	A	1	32 / 59	0.54	0.32
24 - Multiple Choice	93%	B	7%	3%	C	1	55 / 59	0.93	0.32
25 - Multiple Choice	69%	B	31%	12%	D	1	41 / 59	0.69	0.47
26 - Multiple Choice	31%	A	69%	29%	B	1	18 / 59	0.31	0.17
27 - Multiple Choice	80%	B	20%	8%	A	1	47 / 59	0.80	0.39
28 - Multiple Choice	90%	C	10%	5%	B	1	53 / 59	0.90	0.08
29 - Multiple Choice	42%	A	58%	44%	D	1	25 / 59	0.42	-0.01
30 - Multiple Choice	88%	B	12%	5%	A	1	52 / 59	0.88	0.45
31 - Multiple Choice	10%	A	90%	58%	B	1	6 / 59	0.10	0.29
32 - Multiple Choice	81%	D	19%	14%	B	1	48 / 59	0.81	0.54
33 - Multiple Choice	88%	A	12%	8%	C	1	52 / 59	0.88	0.51
34 - Multiple Choice	71%	B	29%	14%	A	1	42 / 59	0.71	0.19
35 - Multiple Choice	41%	B	59%	24%	C	1	24 / 59	0.41	0.15
36 - Multiple Choice	41%	B	59%	32%	D	1	24 / 59	0.41	0.36
37 - Multiple Choice	22%	B	78%	32%	D	1	13 / 59	0.22	0.14
38 - Multiple Choice	25%	A	75%	39%	B	1	15 / 59	0.25	0.08
39 - Multiple Choice	47%	A	53%	22%	B	1	28 / 59	0.47	0.31
40 - Multiple Choice	29%	A	71%	41%	B	1	17 / 59	0.29	0.24
41 - Multiple Choice	10%	A	90%	27%	B	1	6 / 59	0.10	0.18
42 - Multiple Choice	24%	C	76%	37%	B	1	14 / 59	0.24	0.07
43 - Multiple Choice	37%	C	63%	29%	B	1	22 / 59	0.37	0.16
44 - Multiple Choice	36%	B	64%	25%	A	1	21 / 59	0.36	-0.07
45 - Multiple Choice	42%	B	58%	19%	C	1	25 / 59	0.42	0.01
46 - Multiple Choice	32%	D	68%	39%	B	1	19 / 59	0.32	0.14
47 - Multiple Choice	17%	D	83%	39%	B	1	10 / 59	0.17	0.16
48 - Multiple Choice	47%	C	53%	20%	B	1	28 / 59	0.47	0.51
49 - Multiple Choice	3%	D	97%	44%	B	1	2 / 59	0.03	-0.02
50 - Multiple Choice	80%	A	20%	8%	D	1	47 / 59	0.80	0.53
Summary	55%		45%				32 / 59		

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.

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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	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
2 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
3 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
4 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
5 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
6 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
7 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
8 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
9 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
10 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
11 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
12 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
13 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
14 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
15 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
16 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
17 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
18 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
19 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
20 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
21 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
22 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
23 - Multiple Choice	NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.

24 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
25 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
26 - Multiple Choice NCES.Phy.1.2.1	Analyze forces and systems of forces graphically and numerically using vectors, graphs and calculations.
27 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
28 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
29 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
30 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
31 - Multiple Choice NCES.Phy.1.2.1	Analyze forces and systems of forces graphically and numerically using vectors, graphs and calculations.
32 - Multiple Choice NCES.Phy.1.2.1	Analyze forces and systems of forces graphically and numerically using vectors, graphs and calculations.
33 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
34 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
35 - Multiple Choice NCES.Phy.1.3.2	Analyze the motion of objects based on the relationship between momentum and impulse.
36 - Multiple Choice NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
37 - Multiple Choice NCES.Phy.1.3.2	Analyze the motion of objects based on the relationship between momentum and impulse.
38 - Multiple Choice NCES.Phy.1.3.2	Analyze the motion of objects based on the relationship between momentum and impulse.
39 - Multiple Choice NCES.Phy.2.1.1	Interpret data on work and energy presented graphically and numerically.
40 - Multiple Choice NCES.Phy.2.1.1	Interpret data on work and energy presented graphically and numerically.
41 - Multiple Choice NCES.Phy.2.1.1	Interpret data on work and energy presented graphically and numerically.
42 - Multiple Choice NCES.Phy.2.1.2	Compare the concepts of potential and kinetic energy and conservation of total mechanical energy in the description of the motion of objects.
43 - Multiple Choice NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
44 - Multiple Choice NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
45 - Multiple Choice NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
46 - Multiple Choice NCES.Phy.2.1.2	Compare the concepts of potential and kinetic energy and conservation of total mechanical energy in the description of the motion of objects.
47 - Multiple Choice NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
48 - Multiple Choice NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
49 - Multiple Choice NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
50 - Multiple Choice NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.