Phys Sci

Name_____ Class_____ Date_____

1 If the **sum of all the forces** acting on a moving object is **zero**, the object will

A slow down and stop
B change the direction of its motion
C accelerate uniformly
D continue moving with constant velocity

2 A net force of 10 newtons accelerates an object at 5.0 meters per second^2. What **net force** would be required to accelerate the same object at **1.0 meter per second^2**?

A 1.0 N
B 2.0 N
C 5.0 N
D 50. N

3 The diagram below shows a block sliding down a plane inclined at angle θ with the horizontal.

As angle θ is **increased**, the **coefficient of kinetic friction** between the bottom surfaces

4 A **10-newton force** is required to hold a stretched spring **0.20 meter** from its rest position. What is the **potential energy** stored in the stretched spring?

5
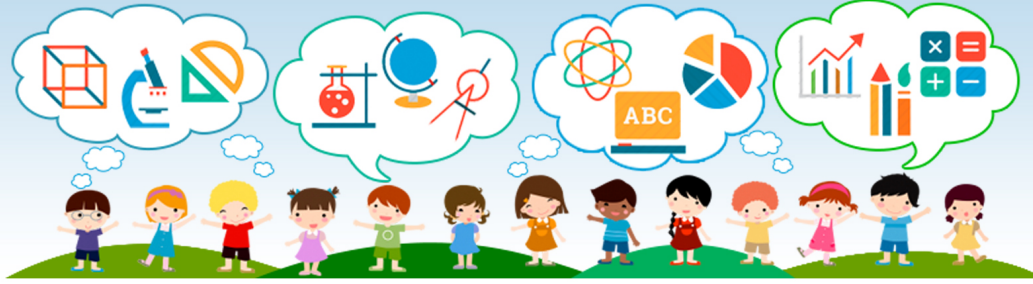
PREVIEW
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7 doubled, the **magnitude of the centripetal force** acting on the child
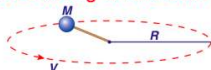
A remains the same
B is doubled
C is halved
D is quadrupled

A repulsion between protons
B attraction between protons and electrons
C repulsion between nucleons
D attraction between nucleons

9 A ball of mass **M** at the end of a string is swung in a horizontal circular path of **radius R** at **constant speed V**. Which combination of changes would require the **greatest increase in the centripetal force** acting on the ball?

A doubling V and doubling R
B doubling V and halving R
C halving V and doubling R
D halving V and halving R

10 A box is pushed toward the right across a classroom floor. The **force of friction** on the box is directed toward the

A left
B right
C ceiling
D floor

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1 If the **sum of all the forces** acting on a moving object is **zero**, the object will

A slow down and stop
B change the direction of its motion
C accelerate uniformly
D continue moving with constant velocity

D

2 A net force of 10 newtons accelerates an object at 5.0 meters per second². What **net force** would be required to **accelerate** the same object at **1.0 meter per second²**?

A 1.0 N
B 2.0 N
C 5.0 N
D 50 N

B

3 The diagram below shows a block sliding down a plane inclined at angle θ with the horizontal.

As angle θ is **increased**, the **coefficient of kinetic friction** between the bottom surface...

4 A **10-newton force** is required to hold a stretched spring **0.20 meter** from its rest position. What is the **potential energy** stored in the stretched spring?

A

5

D

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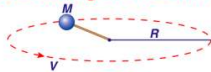
D

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D

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