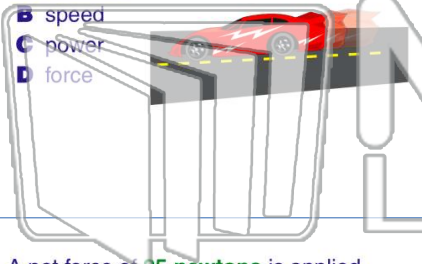




Name _____ Class _____ Date _____

1 Which is a **vector quantity**?

- A distance
- B speed
- C power
- D force



2 A projectile is fired from a gun near the surface of Earth. The initial velocity of the projectile has a **vertical component of 98 meters per second** and a **horizontal component of 49 meters per second**.

How long will it take the projectile to reach the **highest point** in its path?

- A 5.0 s
- B 10 s
- C 20 s
- D 100 s



3 A net force of **25 newtons** is applied horizontally to a **10-kilogram block** resting on a table. What is the **magnitude of the acceleration of the block**?

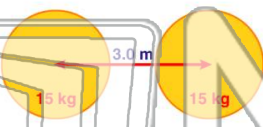
4 In the diagram below, a box is at rest on an inclined plane. Which **vector** best represents the direction of the **normal force**?



5 **PREVIEW**
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7 **magnitude of the gravitational force** between the two spheres is approximately

- A 1.11×10^{-10} N
- B 3.34×10^{-10} N
- C 1.67×10^{-9} N
- D 5.00×10^{-9} N



approximately

- A 1×10^{-1} kg
- B 1×10^0 kg
- C 1×10^1 kg
- D 1×10^2 kg



9 In raising an object vertically at a constant speed of **2.0 meters per second**, **10 watts** of power is developed. The **weight of the object** is

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- C 40 N
- D 50 N

10 In which situation is the **net force** on the object equal to **zero**?

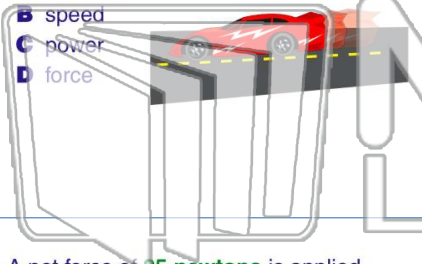
- A a satellite moving at constant speed around Earth in a circular orbit
- B an automobile braking to a stop
- C a bicycle moving at constant speed on a straight, level road
- D a pitched baseball being hit by a bat



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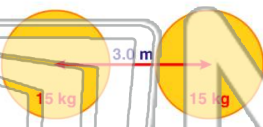
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