



Name _____ Class _____ Date _____

- 1 Which is a **vector quantity**?
- A distance
 - B speed
 - C power
 - D force



- 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**?

- A 0.0 m/s²
- B 0.26 m/s²
- C 0.40 m/s²
- D 25 m/s²



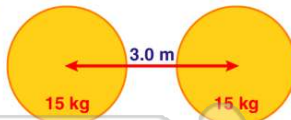
- 5



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

- 7
- A 1.11×10^{-10} N
 - B 3.34×10^{-10} N
 - C 1.67×10^{-9} N
 - D 5.00×10^{-9} N



- 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**
- A 5.0 N
 - B 20 N
 - C 40 N
 - D 50 N

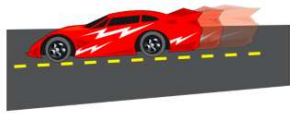
- 10 In which situation is the **net force** on the object equal to **zero**?
- A a satellite moving at constant speed around Earth in a circular orbit
 - B an automobile braking to a stop
 - C a bicycle moving at constant speed on a straight, level road
 - D a pitched baseball being hit by a bat



ANSWER KEY

Which is a **vector quantity**?

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



(d)

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



(b)

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**?

- A 0.0 m/s^2
- B 0.26 m/s^2
- C 0.40 m/s^2
- D 2.5 m/s^2

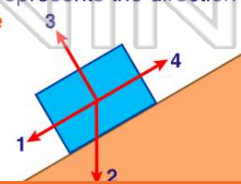


(d)

In the diagram below, a box is at rest on an inclined plane.

Which **vector** best represents the direction of the **normal force** acting on the box?

- A 1
- B 2
- C 3



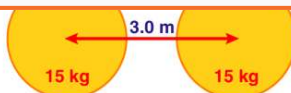
(c)



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

- B $3.34 \times 10^{-10} \text{ N}$
- C $1.67 \times 10^{-9} \text{ N}$
- D $5.00 \times 10^{-9} \text{ N}$



(a)

- C $1 \times 10^1 \text{ kg}$
- D $1 \times 10^2 \text{ kg}$



(c)

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**

- A 5.0 N
- B 20 N
- C 40 N
- D 50 N

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