



Name _____ Class _____ Date _____

1 A car having an initial velocity of **12 meters per second** east slows uniformly to **2 meters per second** east in 4.0 seconds.

The **acceleration** of the car during this **4.0-second interval** is

- A 2.5 m/s² west
- B 2.5 m/s² east
- C 6.0 m/s² west
- D 6.0 m/s² east



2 An airplane originally at rest on a runway **accelerates uniformly** at **6.0 meters per second²** for **12 seconds**. During this **12-second interval**, the airplane travels a **distance** of approximately

- A 72 m
- B 220 m
- C 430 m
- D 860 m



3 A softball player leaves the batter's box, overruns first base by 3.0 meters, and then returns to first base. Compared to the total distance traveled by the player, the **magnitude**

4 A football player kicks a ball with an initial velocity of **25 meters per second** at an angle of **53°** above the horizontal. The **vertical component** of the initial velocity



PREVIEW

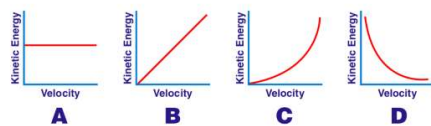
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7 **magnitude**, respectively?

- A acceleration and velocity
- B weight and force
- C speed and time
- D displacement and distance

- A zero velocity
- B zero acceleration
- C zero potential energy
- D zero kinetic energy

9 Which graph best represents the relationship between the **kinetic energy** of a moving object and its **velocity**?



10 An object with an initial speed of **4.0 meters per second** accelerates uniformly at **2.0 meters per second²** in the direction of its motion for a distance of **5.0 meters**. What is the **final speed** of the object?

- A 6.0 m/s
- B 10 m/s
- C 14 m/s
- D 36 m/s



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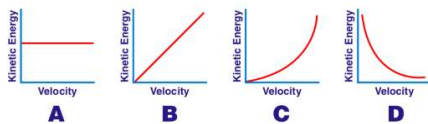


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