An object starts from rest and accelerates uniformly
down an incline. If the object reaches a speed of 40
meters per second in 5 seconds, its average speed is

(1) 8 m/sec (2) 10 m/sec (3) 20 m/sec

(4) 30 m/sec

The average velocity of an object during 6.0 seconds is 2 meters per second. What is the total distance traveled by the object?

(1) 1/3 m

(3) 3 m

(2) 12 m

(4) 4 m

An object moves a distance of 10 meters in 5 seconds. The average speed of the object is

(1) 0.5 m/sec

(3) 40 m/sec

(2) 2.0 m/sec

(4) 50 m/sec

The average speed of a runner in a 400.-meter race is 8.0 meters per second. How long did it take the runner to complete the race?

(1) 80. sec

(3) 40. sec

(2) 50. sec

(4) 32. sec

A moving body must undergo a change of

(1) velocity

(3) position

(2) acceleration

(4) direction

What is the distance traveled by an object that moves with an average speed of 6.0 meters per second for 8.0 seconds?

(1) 0.75 m

(3) 14 m

(2) 1.3 m

(4) 48 m

A cart starting from rest travels a distance of 3.6 meters in 1.8 seconds. The average speed of the cart is

(1) 0.20 m/s

 $(3) 0.50 \, \text{m/s}$

(2) 2.0 m/s

 $(4) 5.0 \, \text{m/s}$

A runner completed the 100.-meter dash in 10.0 seconds. Her average speed was

 $(1) 0.100 \, \text{m/s}$

(3) 100. m/s

 $(2) 10.0 \, \text{m/s}$

(4) 1,000 m/s

A car travels a distance of 98 meters in 10. seconds. What is the average speed of the car during this 10.second interval?

(1) 4.9 m/s

 $(3) 49 \,\mathrm{m/s}$

(2) 9.8 m/s

(4) 98 m/s

How long will it take an object to move 100 meters if the object is traveling with an average speed of 0.5 meter per second?

(1) 200 s

(3) 5 s

(2) 2 s

(4) 50 s

A car accelerates uniformly from rest at 3.2 m/s². When the car has traveled a distance of 40. meters, its speed will be

 $(1) 8.0 \, \text{m/s}$

 $(3) 16 \, \text{m/s}$

(2) 12.5 m/s

(4) 128 m/s

with car B, which travels due west at 20. meters per second. How much time elapses before the two cars collide?

(1) 8.0 s

(3) 20. s

(2) 13 s

(4) 40. s

A race car traveling at 10. meters per second accelerates at 1.5 meters per seconds while traveling a distance of 600. meters. The final speed of the race car is approximately

 $(1) 1900 \, \text{m/s}$

 $(3) 910 \, \text{m/s}$

 $(2) 150 \, \text{m/s}$

 $(4) 44 \, \text{m/s}$

An object initially at rest accelerates at 5 meters per second until it attains a speed of 30 meters per second. What distance does the object move while accelerating?

(1) 30 m

(3) 3 m

(2) 90 m

(4) 600 m

Base your answer to the following question on the information below:

A 10.-kilogram object, starting from rest, slides down a frictionless incline with a constant acceleration of 2.0 m/sec for four seconds.

During the 4.0 seconds, the object moves a total distance of

(1) 32 m

(3) 8.0 m

(2) 16 m

(4) 4.0 m

A boat initially traveling at 10. meters per second accelerates uniformly at the rate of 5.0 meters per second for 10. seconds. How far does the boat travel during this time?

(1) 50. m

(3) 350 m

(2) 250 m

(4) 500 m

A car having an initial speed of 16 meters per second is uniformly brought to rest in 4.0 seconds. How far does the car travel during this 4.0-second interval?

(1) 32 m

(3) 96 m

(2) 82 m

(4) 4.0 m

A skier starting from rest skis straight down a slope 50. meters long in 5.0 seconds. What is the magnitude of the acceleration of the skier?

(1) $20. \text{ m/s}^2$

 $(2) 9.8 \text{ m/s}^2$

 $(3) 5.0 \text{ m/s}^2$

 $(4) 4.0 \text{ m/s}^2$

.. An object is uniformly accelerated from rest to a speed of 25 meters per second in 10 seconds. The acceleration of the object is

 $(1) 1.0 \text{ m/s}^2$

 $(2) 2.0 \text{ m/s}^2$

 $(3) 1.5 \text{ m/s}^2$ $(4) 2.5 \text{ m/s}^2$