

Cycle 9 - Motion Basics

Motion involved changing your _____ over _____

What is a scalar? Give an example

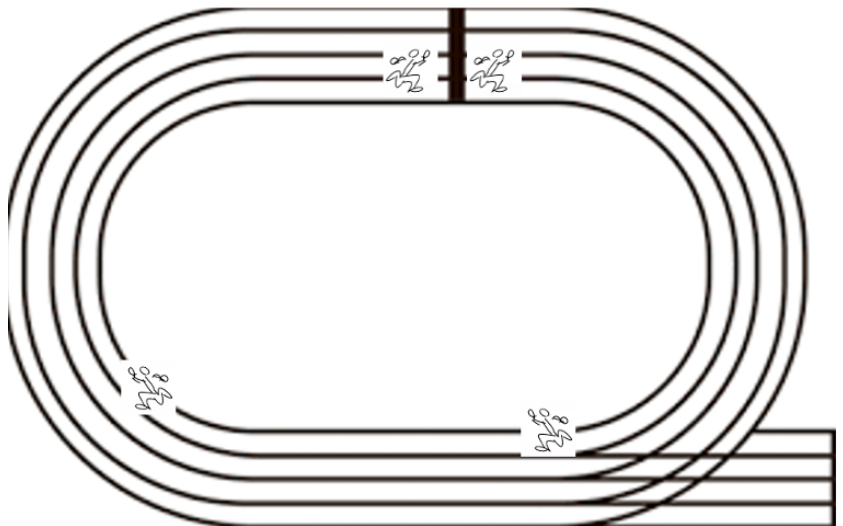
What is a vector? Give an example

Average Speed =

Average Velocity =

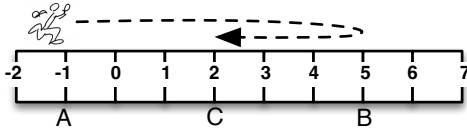
What is the average speed of a runner that completes a lap around a 400-meter track in 80 seconds?

What is the average velocity of a runner that completes a lap around a 400-meter track in 80 seconds?



Name : _____

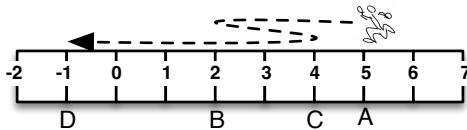
The person runs from point A ($x = -1 \text{ m}$) to point B ($x = 5 \text{ m}$) in 4 seconds, then doubles back and ends up at point C ($x = 2 \text{ m}$) in another 2 seconds.



a) Calculate the person's average speed from A to C.

b) Calculate the person's average velocity from A to C.

The person runs from point A ($x = 5 \text{ m}$) to point B ($x = 2 \text{ m}$) in 3 seconds, then doubles back and runs to point C ($x = 4 \text{ m}$) in 2 seconds, then turns around and ends up at point D ($x = -1 \text{ m}$) in another 3 seconds.



a) Calculate the person's average speed from A to D.

b) Calculate the person's average velocity from A to D.