

Name _____ Period _____ Date _____

Speed \neq Velocity

Notes: Speed and Velocity are DIFFERENT.

$\text{Speed} = \frac{\text{Distance Traveled (meters)}}{\text{Total Time (seconds)}}$	$\text{Velocity} = \frac{\text{Change in Position (meters)}}{\text{Total Time (seconds)}}$
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Example 1: Speed

Dylan plays soccer. He runs from the midfield line to the goal (50 meters) in 10 seconds. What is his **average speed**?

Example 2: Velocity

Sarah also plays soccer. She plays defense and moved up the field by 20 meters in 15 seconds. What is her **average velocity**?

Example 3: The difference between Speed and Velocity

Dylan, after running 50 meters upfield, scores a goal and runs back to the midfield line in a total of 60 seconds. What is his **average velocity** from start to rest?

On Your Own: Complete these practice problems on Speed and Velocity

1. While on vacation, Lisa Carr traveled a total distance of 440 miles. Her trip took 8 hours. What was her average speed?

2. A track and field coach makes his athletes do a drill that requires them to start at the end zone of a football field, run to the 10-yard line, and back to the end zone. Then run to the 20-yard line, and back. Then the 30-yard line and so on until they run the entire field and back. This drill took 270 seconds to finish. What was his average speed **and** velocity?

