

## Measuring Motion Worksheet

**Remember, motion is a change in position over time. There are 3 ways to measure motion:**

**Speed** – the formula for measuring speed is  $(\text{distance}/\text{time} = \text{speed})$ . Speed should always be written in units – miles per hour, kilometers per hour, meters per second, meters per minute etc.



**Velocity** – speed in a given direction, “I’m driving 45 mph, west.”

**Acceleration** – measure used when objects speed up, slow down, or change direction.

**Now, complete the following questions.**

1. What type of motion is measured by the following formula:  
 $\text{Distance}/\text{Time} = \text{Speed } (d/t = s)$
2. What type of motion is measured by giving speed and direction (I’m driving 45 mph – West)?
3. What type of motion is measured when an object speeds up, slows down, or changes direction?

**Use the formula to find speed ( $d/t = s$ ) to answer the following problems.**

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1. Joe swam 200 meters in 4 minutes. What was Joe's speed?
2. Penelope drove her car 350 miles in 5 hours. How fast was she driving?
3. Derek skied down a 255 meter hill in 17 minutes? How fast was he skiing?
4. Jennifer ran 50 yards in 5 minutes. How fast was Jennifer running?