

Name: _____ Period: _____ Date: _____

SPEED NOTES

Speed is a rate that expresses how much _____ an object covers in a certain period of _____. The distance and time units depend on the situation.

$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Some examples of speed units might be:

meters/second	m/s
miles/hour	mi/h
kilometers/hour	km/h
inches/second	in/sec

*The slash is read as "per"



Ex 1: A cyclist travels 30 kilometers in 1 hour. That cyclist has a speed of 30 km/h.

Ex 2: An ant moves 12 centimeters in 6 seconds. The ant's speed is $\frac{12 \text{ cm}}{6 \text{ sec}} = 2 \text{ cm/sec}$

The speed of most moving objects is not _____. For example, when you ride your bike, you might slow down on an uphill, move more quickly down a hill, etc. However, you can calculate your _____ speed as follows:

$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}}$$

Ex 1: A cyclist travels 32 kilometers during the first 2 hours. Then the cyclist travels 13 kilometers during the next hour. What is the average speed?

$$\text{Average speed} = \frac{32\text{km} + 13\text{km}}{2\text{h} + 1\text{h}} = \frac{45\text{km}}{3\text{h}}$$

$$\text{Average speed} = 15\text{km/h}$$

Calculate the speed (show your work!):



1. A biker rode 72 miles in 10 hours. What was his average speed?

2. A driver in a car covered a distance of 45 kilometers in 45 minutes. What was his average speed?

3. Kristine walked 10 miles in 5 hours. Calculate her speed.

4. A toy car runs through a 94 meter track with 4 sections. It passes through the first section in 10 seconds, the second section in 7 seconds, and the third section in 8 seconds. The last section takes 22 seconds for the car to pass. Calculate the car's average speed for the track.

Section 1 Time:

Section 2 Time:

Section 3 Time:

Section 4 Time: _____

Total Time: