

Name: _____ Section: _____

Speed Practice Problems

Directions: Use the speed formula below to derive two additional formulas, one for calculating distance and one for calculating time. You can approach this as if you were solving for an unknown in math class or you can use the speed triangle. Once you have all three formulas, use them to solve questions 1-5.

You must show all work!

Distance =

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

Time =

- 1) A kayak races 100 meters in 50 seconds. What is its speed?

- 2) A family backpacking at Yosemite National Park took 5 hours to climb a mountain trail 7.5 km long. What was the family's average speed?

- 3) After turning the light on, you see a cockroach quickly scurry along the floor and under the refrigerator within a 5 second period of time. How far did the cockroach travel if its speed was 1.25 m/s?

- 4) At a rate of 5 miles per hour, a manatee travels 13 miles as it glides through the water. How long did it take the manatee to travel the 13 miles?

- 5) After a skiing trip in the mountains, a late-day snow storm lead to a speed restriction of 60 km/hr on the roadways.
 - a. How long would it take a family leaving the mountain to get home if they live 270 km away?

 - b. How fast would they have to travel to make the trip in three hours?