

Name: _____ Hour: _____ Date: _____

Speed and Velocity Problems

Directions: Read the following questions. For each, make a list of information that is given, chose the correct equation, and then solve the problem. **Show your calculations!**

1. A bicyclist travels for 1.5 hours at an average speed of 32 kilometers per hour. How far does the bicyclist travel in that time?

$$t = 1.5 \text{ hours}$$

$$d = ?$$

$$v = 32 \text{ k/h}$$

2. In a boat race, Dan drove his motorboat over the 1000 – meter course from start to finish in 40 seconds. What was Dan's average speed during the race?

$$t = 40 \text{ s}$$

$$d = 1000 \text{ m}$$

$$v = ?$$

3. It takes Serina 0.25 hours to drive to school. Her route is 16 km long. What is Serina's average speed on her drive to school?

$$t =$$

$$d =$$

$$v =$$

4. Sound travels much faster in water than air. It takes 4.2 seconds for the sound of an explosion to travel underwater to a diver 6,006 meters away. What is the speed of sound in water?

$$t =$$

$$d =$$

$$v =$$

5. Suppose a bear runs for 200 seconds and covers 950 meters. What is the bear's speed?

$$t =$$

$$d =$$

$$v =$$

6. If the bear were running at a speed of 8.3 m/s, how far will it travel in 10.0 hours?

$t = 10.0$ hours (be sure to change into seconds)

$d = ?$

$v = 8.3$ m/s

7. An average tree sloth moves with a speed of 0.743 meters per second. How long does it take a sloth, moving at this speed, to travel 22.3 meters?

$t =$

$d =$

$v =$

8. The cheetah can run a distance of 274 meters in 8.65 seconds at its top speed. What is the cheetah's top speed?

$t =$

$d =$

$v =$

9. The maximum speed on the interstate in some western states is 75 miles per hour, or 121 kilometers per hour. What is the distance, in kilometers, traveled by a car moving at the max speed for 3 hours?

$t =$

$d =$

$v =$

10. Find the velocity in meters per second of a baseball thrown 38 meters from third base to first base in 1.7 seconds.

$t =$

$d =$

$v =$