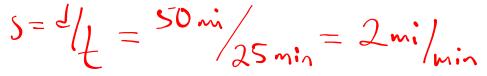
Below are problems to solve that involve calculation speed, distance or time. Read each question carefully. Write the formula you will be using to solve the problem. Substitute the numerical values and units into the formula. Do the math and write your answer. **Be sure your answer has units**.

1. A ball rolls across the floor for 20 meters. It takes the ball 4 seconds to move that far. Calculate the speed of the ball.



2. A man is in a car. He goes 50 miles in 25 minutes. How fast is he going?



3. An object is moving at the rate of 10 m/s. It continues to move at that rate for 5 seconds. How far did the object move?

$$d = S \times t = 10 \, \text{m/s} \times S \, \text{sc} = 50 \, \text{m} \, .$$

4. An object is moving at the rate of 60 m/s. It continues to move at that rate for120 seconds. How far did the object travel?

5. A car is rolling down an 80 meter hill. It travels at a speed of 20 m/s. How long does it take for the car to get to the end of the hill?

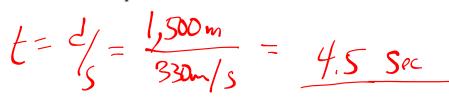


6. A bicyclist travels 60.0 kilometers in 3.5 hours. What is the cyclist's average speed? (Report your answer to the correct number of significant digits!)

7 km/

$$S = 2/L = \frac{60.0 \text{ km}}{3.5 \text{ hr}} =$$

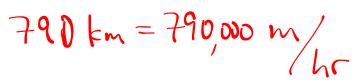
7. How much time would it take for the sound of thunder to travel 1,500 meters if sound travels at a speed of 330 m/s?



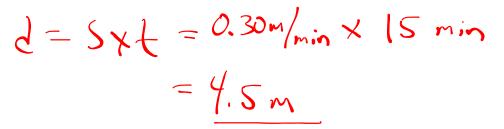
8. How much time would it take for an airplane to reach its destination if it traveled at an average speed of 790 kilometers/hour for a distance of 4,700 kilometers? (Report your answer to the correct number of significant digits!)

$$t = \frac{d}{s} = \frac{4,700 \text{ km}}{790 \text{ km}/hr} = \frac{5.9 \text{ hr}}{5.9 \text{ hr}}$$

9. What is the airplane's speed in meters/hour?

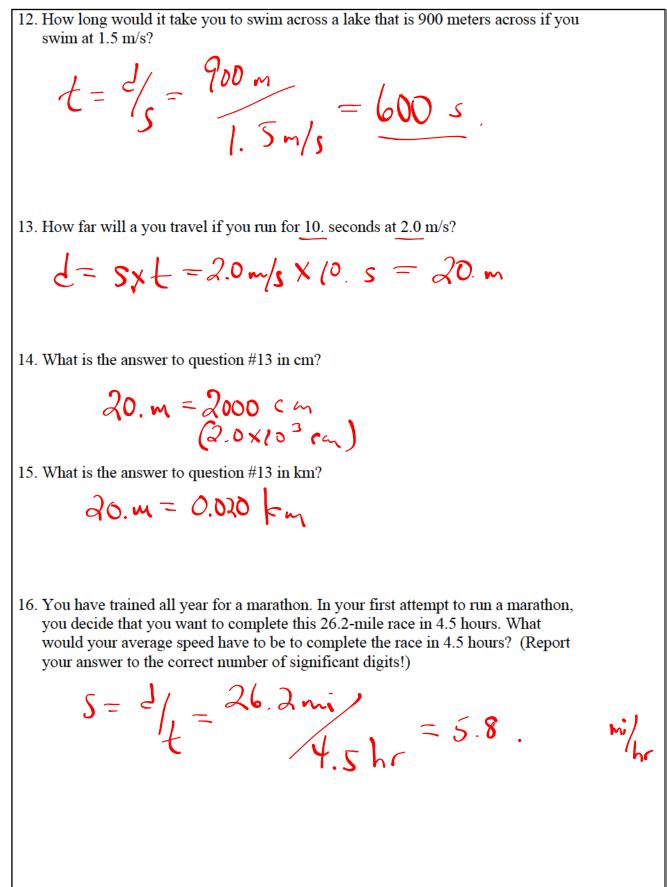


10. A snail can move approximately 0.30 meters per minute. How many meters can the snail cover in15 minutes?



11. Calculate the average speed (in km/h) of a car stuck in traffic that drives 12 kilometers in 2 hours.

$$S = d_{1}^{2} = \frac{12 \text{ km}}{2 \text{ hr}} = 6 \text{ km/hc}$$



December 15, 2014

