Name: [redacted]

2.1& 2.2 Speed & Velocity

Read pages 22-28

1. What is the difference between average speed and constant speed?

2. What is the formula for speed?

3. If you wanted to find the distance an object traveled how would you rewrite the equation for speed?

4. If you wanted to find the amount of time an object traveled how would you rewrite the equation?

5. A fox traveling at a constant speed travels 300 m in 50 s. What is the speed of the fox?

6. Trish whizzes along the highway in her new Mercedes Benz. She travels 80 Km in the first hour then 50 km in her second hour, and 100 km in the third hour. What was her average speed?

7. An ambulance is traveling to an accident 67km from the Selkirk Hospital. The driver can safely travel no faster than an average of 115km/h. How long will it take for the ambulance to reach the accident?

8. Bill is entered in the Get off Your Butt and Ski event. Bill must complete as many laps of a 500 m course as he can in 1hour and 30 minutes. If Bill skis at an average of 4m/s how many meters will he complete? How many km is this?

9. Maureen travels in her convertible at an average speed of 27 m/s between Selkirk and Falcon Beach. It takes her 1.4 hours to travel the distance. How far in km did she travel?

10. Tom throws a baseball with an average speed of 150km/h. Calculate the time in seconds for the ball to travel over the home plate which is 0.22m.

11. What is the difference between average velocity and average speed?

12. A spider crawling [up] a wall at a constant rate of 24m in 4s. What is the velocity of the spider?

13. A circus van travels 50 km [E] in the first hour, 40 km [W] in the second hour then 30 km [W] in the next half hour.
    a. What is the average speed of the van?

    b. What is the average velocity of the van?

14. A delivery van, parked 200m [E] of a police car, moves to a position 600m[E] of the police car in 18s. What was the average velocity of the delivery can in km/h?

15. Sylvester is training for a boxing match. He run due north at an average speed of 16 km/h for the first 30 minutes. He then turned around because he was tired and took 48 minutes to return home.
    a. What was his average speed?

    b. What was his average velocity?

16. Sally hits a baseball and begins to run. She travels 27 m[NE] to first base. She then turns and travels 27m [NW] and stops at second base. The total time took her 5s.
    a. What was her average speed in m/s?
    b. What was her average speed in km/h?
    c. What was her average velocity in m/s?
    d. What was her average velocity is km/h?