Name:_____ Period:_____
Show all your work!

1. A person walks 13 km in 2.0 h. What is the person's speed in km/h and m/s?

2. *Sentences* What would happen to the speed if it took him 4.0 hours instead?

3. Light from the sun reaches Earth in 8.3 min. The speed of light is 3.00×10^8 m/s.
    How far (in kilometers) is Earth from the sun?

4. *Sentences* Jupiter is about 5 times further from the sun. How long would light from
    the sun take to reach Jupiter?

5. A car is driven 800 km west in 1.0 h and then 700 km east in 2.0 h. East is the
    positive direction. What is the average velocity and speed of the car in km/h?

6. *Sentences* Why are the average speed and average velocity values different in
    question 5?

7. A car is traveling at a constant speed of 90 km/h. It is passed by a truck moving at
    105 km/h. From the point of view of the car, what is the truck's speed?

8. An Indy-500 race car's velocity increases from 4.0 m/s to 36.0 m/s over a 4.0s period.
    What is its acceleration?

9. A bus is moving at 25.0 m/s. The driver steps on the brake and the bus stops in 3.0s.
    What is the acceleration of the bus?

10. A golf ball rolls up hill on the green.
    a. If it starts with a velocity of 2.0 m/s and is accelerates at a rate of -0.5 m/s^2,
        what is its velocity after 2.0s?
    b. If the acceleration occurs for 6.0s, what is the final velocity?