Distance, Speed and Acceleration Practice Problems

1. A football field is about 100 m long. It takes a Mr. Gray 20.0 seconds to run its length
    a. What was his speed in m/s?

    b. What was his speed in km/h?

2. The pitcher's mound in baseball is 85.0 m from the plate. It takes 4.00 seconds for a pitch to reach the plate.
    a. How fast is the pitch in m/s?

    b. How fast is the pitch in km/h?

3. If you drive at 100 km/hr for 45.0 min, how far will you go?

4. If you run a t 12.0 m/s for 15.0 minutes, how far will you go?

5. Every summer I drive to Michigan. It is 3900 km to get there. If I average 100 km/hr, how much time will I spend driving?

6. A bullet travels at 850 m/s. How long will it take a bullet to go 1.50 km?

7. The fastest train in the world moves at 500 km/hr. How long will it take to travel 4000 m?

8. How long will it take light moving at 300,000 km/s to reach us from the sun? The sun is 15,000,000 km from earth.

9. It is 21,000 kilometers around the earth and the earth rotates in 24 hrs. How fast is it rotating?

10. A car goes from rest to 100 km/hr in 10.0 seconds. What is its acceleration?

11. A bus slams on its breaks and goes from 30.0 km/hr to 15.0 km/hr in 4.50 seconds. What is its acceleration?

12. If a man is running at 25.0 km/h and accelerates at a rate of 1.00 m/s/min for 3.50 s, what will be his final speed?