5.1 Speed Calculations

Directions: Use the equation from the 5.1 notes to answer the following questions. Show your work and include the units.

1. A football field is about 100 m long. If it takes a person 20 seconds to run its length, how fast (what speed) were they running?
2. The pitcher’s mound in baseball is 85 m from the plate. It takes 4 seconds for a pitch to reach the plate. How fast is the pitch?
3. If you drive at 100 km/hr for 6 hours, how far will you go?
4. If you run a t 12 m/s for 15 minutes, how far will you go? (Hint: first convert minutes to seconds )
5. A business man drives to Michigan for a job. It is 3900 km to get there. If he averages 100 km/hr, how much time will he spend driving?
6. A bullet travels at 850 m/s. How long will it take a bullet to go 1 km? (Hint: first convert m/s to km/s)
7. Every winter hunters fly to Colorado to hunt elk. It takes 5 hours for them to travel from their home to their cabin, a distance of 784 miles. What is their average speed in mph?
8. The fastest train in the world moves at 500 km/hr. How far will it go in 3 hours?
9. 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.
10. It is 21,000 kilometers around the earth and the earth rotates in 24 hrs. How fast is it rotating?