Speed, Distance, and Time Practice

Directions: Please use the triangular formula to figure out the missing variables. Do not forget to show your work. Always show the units! Round the answer to the nearest tenth place.

1. A runner completes a 10.0 km run in about 45 minutes. What was the runner's speed in km/h?

2. d = 18.5 m, t = 98.2 s, s = ?

3. A speaker generates a sound frequency of 175 Hz at one end of a football stadium. The resulting sound wave travels the length of a football field, 92.2m, in 0.271s. What is the speed of the wave in m/s?

4. d = 78 m, t = 999.2 s, s = ?

5. Storm chasers are changing a tornado. They travel alongside the tornado for 15 min. and find that they have traveled about three quarters of a mile. Calculate the speed of the tornado in mph so they can report the speed to the local weather station.

6. d = 32,000 m, s = 22,000 m/s, t = ?

7. A volcano has erupted near a populated city in Hawaii. The lava is flowing at a constant speed of .25 m/s. The nearest village is 2 kilometers away. How many minutes do the villagers have to evacuate before the lava reaches their home?

8. s = 22.4 mph, t = 45 min., d = ?

9. A cyclist needs to complete a 30 minute workout. The cyclist can maintain a speed of 22 mph. How many miles will the cyclist need to travel to complete the workout?

10. t = 25 s, s = 1.2 m/s, d = ?