Physics 2204 - Worksheet 3: Velocity and Acceleration

1. Mary runs at a speed of 3.0m/s [N] for 2.0 minutes. How far did she go?

2. A car travelling at an average speed of 57km/h [E] makes a 300km [E] trip. How long did the trip take?

3. If Tom's velocity is 17 km/h east, how long will it take for him to travel 50 km east?

4. A car travels from St. John's to Clarenville in 2.0 hr . The displacement traveled by the car is 175 km[W]. What is the average velocity of the car for the trip?

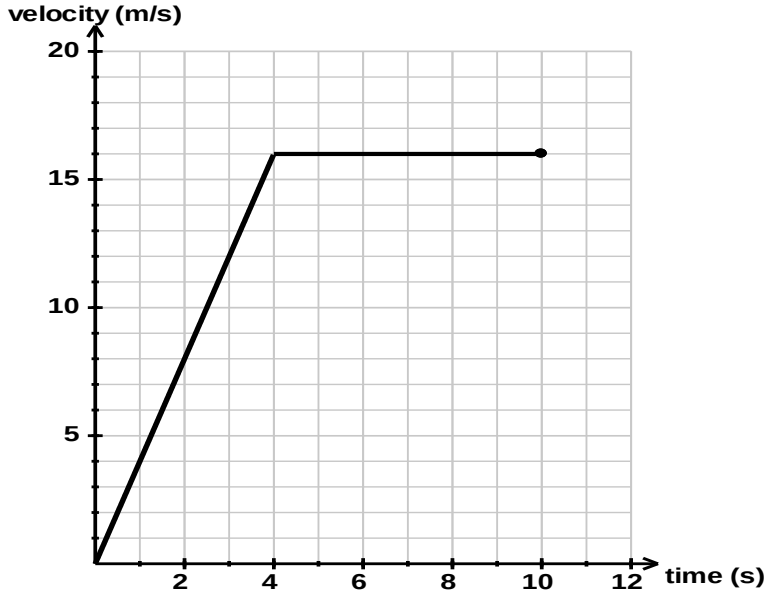
5. A person walks at a velocity 6.0 km/h [E]. How much time is required for a person to walk 30 m[E]?

6. A car drives 90.0m [N] in 20.0 s, then turns and drives 225. m [E] in 25.0 s. What is the car's speed and velocity?

7. A walker goes 40.0 m [W] in 15.0 s, then turns and walks 40.0 m [E] in 15.0 s, then turns and walks 30.0 m [W] in 10.0 s. What is the person's speed and velocity?

8. A car drives 70.0m [N] in 20.0 s, then turns and drives 150. m [E] in 45.0 s. What is the car's Velocity?

9. Use the graph below to answer the questions that follow.



a) What is the velocity at 2 s?_____

b) What is the velocity at 3 s?_____

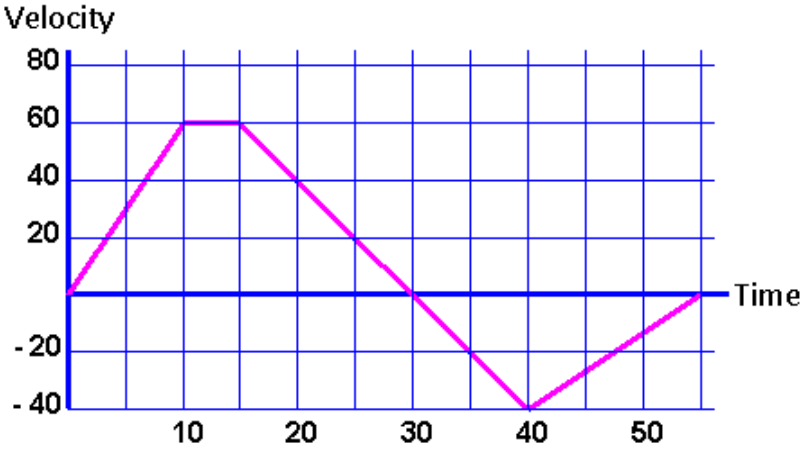
c) What is the velocity at 7 s?_____

d) What is the acceleration of the object from 0 to 4 s?

e) What is the acceleration of the object from 4 s to 10 s?

f) What is the displacement of the object from 0 to 10 s?

10. Use the graph below to answer the questions that follow.



a) What is the acceleration of the object from 0 to 10 s?

b) What is the acceleration of the object from 15 s to 40 s?

c) What is the acceleration of the object from 40 s to 55 s?

d) What is the displacement of the object from 0 to 30 s?