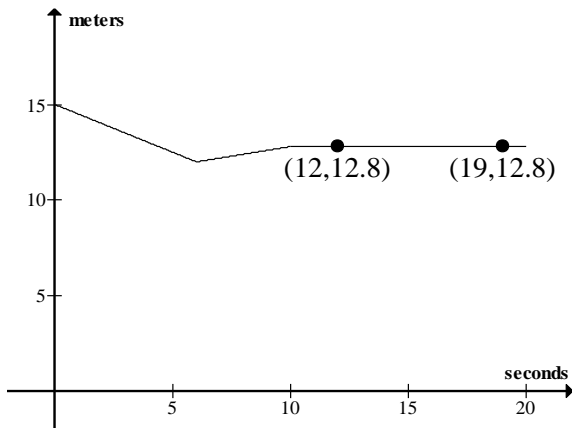


TRS 92: Introduction to Average Rates of Change

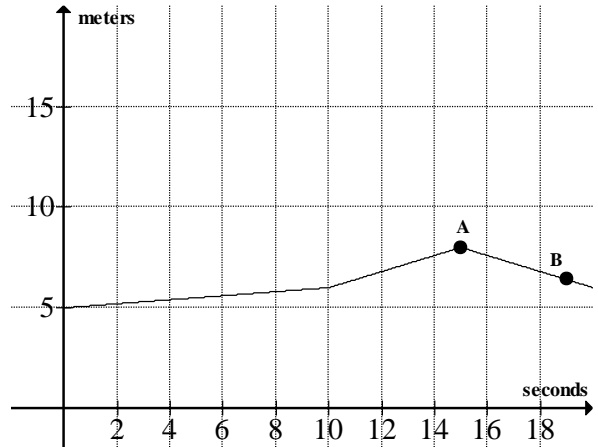
For the graphs #1-2:

- a. Describe the walker's actions.
- b. Put a +, --, or 0 on each section of the graph to indicate the type of slope.
- c. Use the points indicated to calculate the rate of change. Show the work for your calculations and include units.

1.

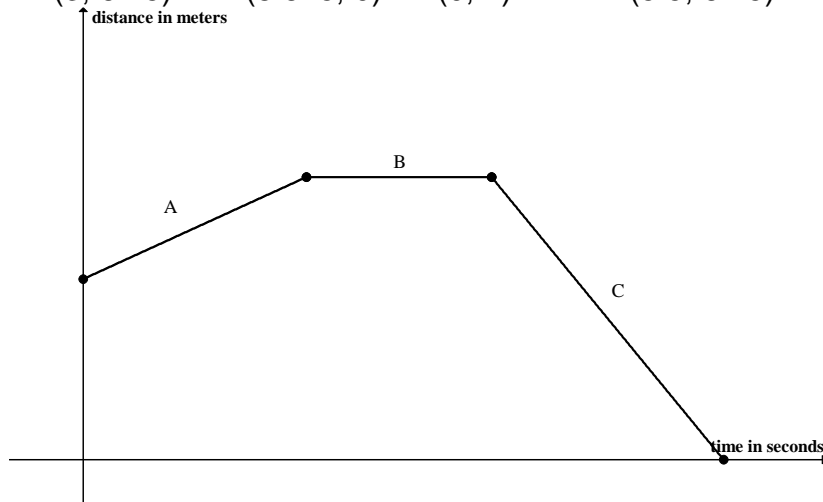


2.



3. The coordinates for the endpoints of each segment are given below. Determine which coordinate goes with each point and label the graph accordingly.

(3, 6.25) (8.625, 0) (0, 4) (5.5, 6.25)

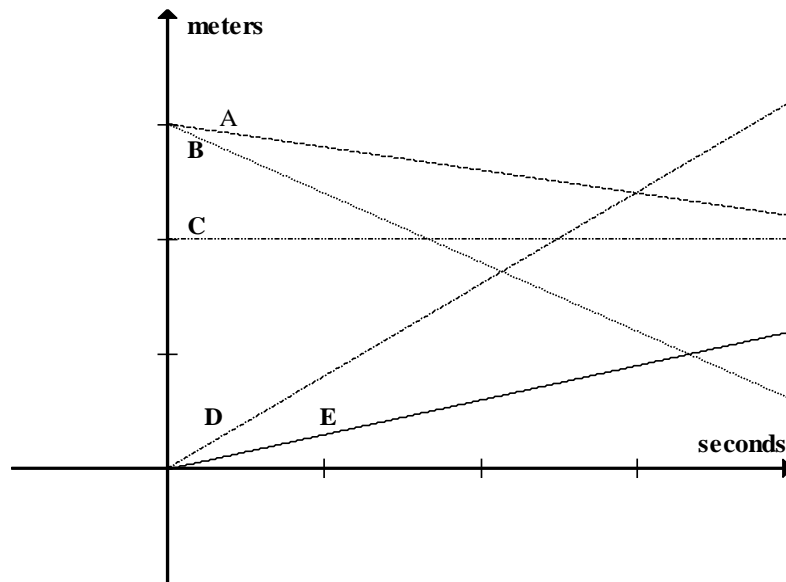


4. Using the graph above, find the average rate of change for each segment. Show your work.

5. Sketch a graph (be sure to label the axes) that describes the following motions: A walker starts 8 m in front of the CBR and walks away from it at a constant rate for 10 seconds. At this time the walker is 11 m away from the CBR. He stops for a total of 5 seconds (total time is now 15 seconds). Then he walks back to the CBR and gets to the CBR at 20 seconds. **Use the values given for time and distance to label ordered pairs on your graph.**

6. Write the letter of the graph that goes with each slope.

3 _____ -2 _____ 8 _____ 0 _____ -6 _____



Thinking Back: Unit Analysis

Complete the following conversions. Use unit analysis and show your work.

7. A person walks at a rate of 10m/min. How many meters will the person go in 15 minutes?

8. A person walks at a rate of 0.7 m/sec. How long will it take for her to walk 18 m?

9. A car gets 25 miles to the gallon. How many miles can the car travel on 13 gallons?

10. A truck gets 13 miles to the gallon. How much gas is needed to travel 120 miles?

11. A graph has a slope of 3 ft/sec. At how many seconds will the distance on the graph be 15 feet?