Date____Pd___

UNIT II: Review (new version)

- 1. Consider the position vs time graph at right.
 - a. Determine the average velocity of the object.
 - b. Write a mathematical equation to describe the motion of the object.



- 2. Shown at right is a velocity vs time graph for an object.
 - a. Describe the motion of the object.
 - b. Draw a motion map that represents the behavior of the object.
 - c. How far did the object travel in the interval t=1s to t=2s?
 - d. Draw the corresponding position vs time graph. Number the axes.
 - e. What is the total displacement? Explain how you got the answer.



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- 3. Johnny drives to Wisconsin (1920 miles) in 60 hours. He returns home by the same route in half the amount of time.
 - a. Determine his average speed.
 - b. Determine his average velocity.
 - c. Compare these two values and explain any differences.
- 4. Consider the x vs t graph below.



- a. Describe the behavior of the object depicted in the graph.
- b. Draw a motion map that represents the behavior of the object.
- c. Construct a velocity vs time graph corresponding to this position graph.
- d. Find the total distance is 6.0 s.
- e. Find the total displacement in 6.0 s.
- f. Find the average speed for 6.0 s.
- g. Find the average velocity for 6.0 s.

- 5. A race car travels at a speed of 95 m/s. How far does it travel in 12.5 s? Use the appropriate mathematical expression and show how units cancel. (Keep the proper number of sf's.)
- 6. Sketch a position vs time graph for the following motion map:



- 7. Based on the position vs time graph given
 - a. Describe, using a clear, complete sentence, how the motion of object 2 differs from the motion of object 1. Explain how you know.
 - b. Sketch the graph of velocity vs time for object 1 and object 2. (label clearly)
 - c. In the space provided, draw motion maps for object 1 and object 2.

