Name_

Date Pd

UNIT II: Review

- 1. Consider the position vs time graph at right.
 - a. Determine the velocity of the object.
 - b. Write the mathematical model (starting with y=mx+b) 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 the corresponding position vs time graph. Number the x axis.
 - c. How far did the object travel in the interval t =1s to t =2s?
 - d. What is the total displacement? Explain how you got the answer.



t (s)

- 3. Johnny drives to Wisconsin (1920 miles) in 32 hours. He returns home by the same route in the same amount of time.
 - a. Determine his distance traveled and average speed.
 - b. Determine his displacement and average velocity.
 - c. Compare these values and explain any differences.
- 4. Consider the v vs t graph below.



- a. Describe the behavior of the object depicted in the graph.
- b. Graphically represent the displacement of the object. What was the overall displacement (each square represents 1 m/s on the velocity axis and 1 sec on the time axis)?

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.