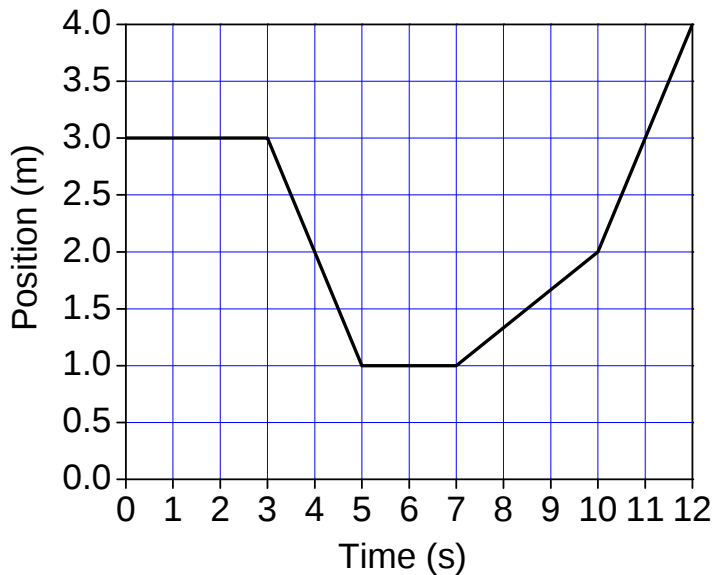


Physics 115 – Section 0101
Homework #9
Due April 22, Tuesday, 2008

Essay 1, 10 points

Describe in words the motion of the person who made the following graph.



Essay 2, 15 points

- A. In Lab M3 you made a graph of position vs. time for a person walking at a steady pace. When you graphed distance vs. time, the line looked very smooth. When you graphed velocity vs. time, the line was less smooth, and had some up-and-down bumps. Why is this? (5 points)
- B. Draw the velocity time graph for the motion shown in Essay1. Make sure to show the correct values of velocity by calculating it from the values of the position. Redraw the distance vs. time graph on a paper with a grid exactly as shown. Draw the velocity vs. time graph below the distance vs. time graph so that the time axis matches.

Problem 1, 15 points

Jill makes a motion described by the equation $d = 0.5\text{m} + 2\text{m/s}\cdot t$, while Jack makes a motion described by $d = 2\text{ m} + 0.5\text{m/s}\cdot t$. What is each one's speed? What is each one's velocity? Explain. Graph their motions. At what time are they at the same place? What is their position at that time?

Problem 2, 10 points

Write down the equation for the position as a function of time of the person who made the following graph. What is the person's speed? What is the person's velocity?

