

In-Class Physics Essay

Partners:

You will write a complete solution with descriptions (in words) of the major steps, concepts, and ideas. You must submit a word document to me by the end of the class. You may take pictures of your work and past them into the document in appropriate spots.

I am looking for:

- a. Sketch of a Position vs time graph, both on the same axis please. Label important points on the graph.
- b. Short paragraph of your attack plan (short means three or four sentences)
- c. The attack plan implemented with descriptions.
- d. Solid and organized work.
- e. A statement of solution.

YOUR WORK MUST BE YOUR OWN, YOU ARE NOT ALLOWED TO CONSULT THE INTERNET, AI, OTHER STUDENTS, AND OR OTHER TEACHERS. NOTES AND TEXT ARE ALLOWED.

An unmarked police car is traveling at a constant $27 \frac{m}{s}$ is passed by a speeder traveling at a constant velocity of $37.5 \frac{m}{s}$. Precisely 2.00 s after the speeder passes the police car, the officer steps on the accelerator; if the police car's acceleration is $2.6 \frac{m}{s^2}$, how much time passes before the police officer catches the speeder? What is the distance covered?