

ANNOUNCEMENTS

- UNIT 2-3 TEST TOMORROW
- CALCULATOR
- REFERENCE PAGE
- CELL PHONES
- SEATING ARRANGEMENT
- TEST TIME

3.4

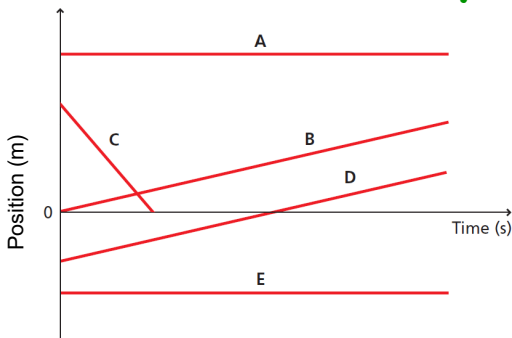
Describing Motion with Graphs

STANDARDS

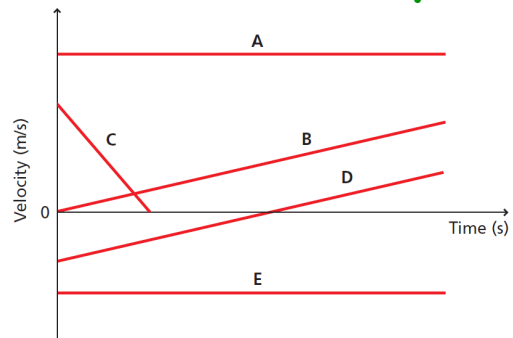
3.2

 I can interpret, analyze, and create acceleration vs. time graphs for objects moving with constant acceleration.

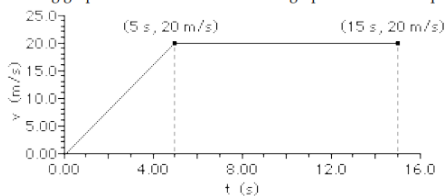
What Is The Story?



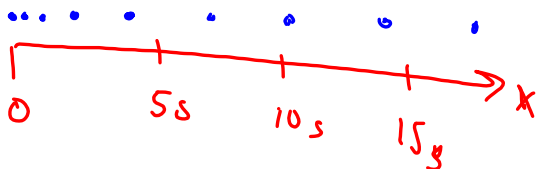
Different Story?



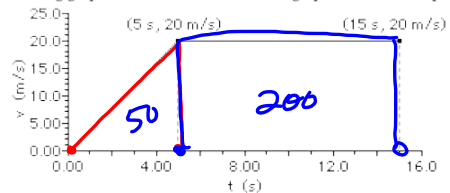
Consider the following graph of a car in motion. Use the graph to answer the questions.



- a. Describe the motion of the car during each of the two parts of its motion.
 0-5 s: $v_0 = 0$ accelerates to 20 m/s in 5 s
 5-15 s: constant v , 20 m/s
- b. Construct a dot diagram for the car's motion.

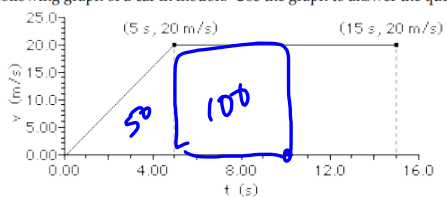


Consider the following graph of a car in motion. Use the graph to answer the questions.



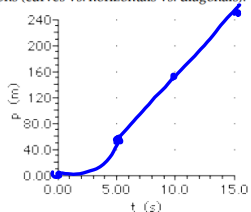
- c. Determine the acceleration of the car during each of the two parts of its motion.
 0-5 s: $\frac{20 \text{ m/s}}{5 \text{ s}} = 4 \text{ m/s}^2$
 5-15 s: 0
- d. Determine the displacement of the car during each of the two parts of its motion.
 0-5 s: $\frac{1}{2}bh = \frac{1}{2}(5)(20 \text{ m/s}) = 50 \text{ m}$
 5-15 s: $ph = (10 \text{ s})(20 \text{ m/s}) = 200 \text{ m}$

Consider the following graph of a car in motion. Use the graph to answer the questions.



e. Fill in the table and sketch position-time for this car's motion. Give particular attention to how you connect coordinate points on the graphs (curves vs. horizontals vs. diagonals).

Time (s)	Pos'n (m)
0	0
5	50
10	150
15	250



PRACTICE

- Unit 3 Practice Problems (10-13)
- Worksheet
- Worksheet #2