

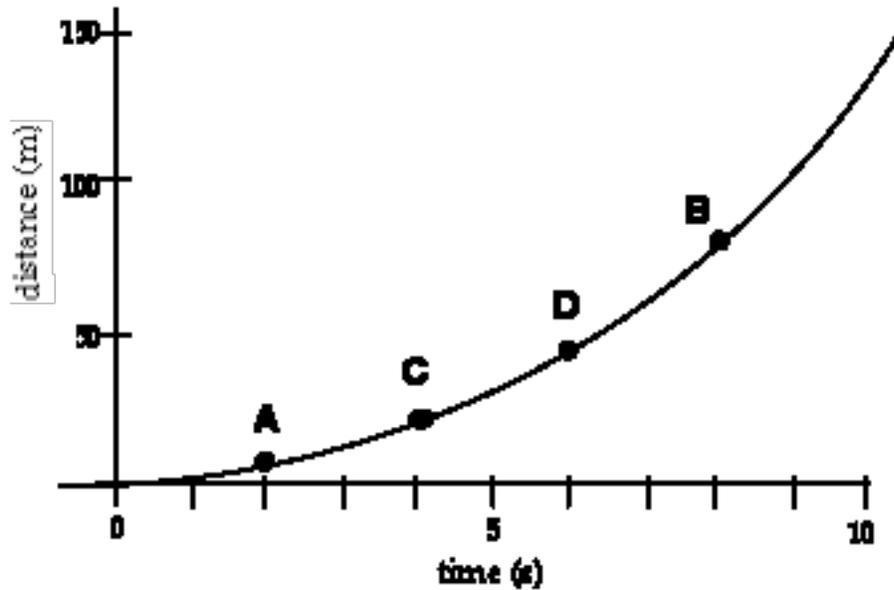
QUESTIONS TO HAND IN – EXPERIMENT 6

NAME _____

LAB INSTRUCTOR _____ LAB DAY/TIME _____

1. An automobile travels at a constant velocity of 30 m/s toward the East. In 10 seconds, how much distance does it cover?

An automobile starts at rest moving along a straight line, and increases its velocity to 30 m/s in 10 seconds as shown in the plot of distance vs. time below:



2. Points *A* and *B* are centered about the 5 second mark. What is the average velocity: from the start to point *A*? from the start to point *B*?

3. Draw a straight line connecting the two points and determine its slope. This is the average velocity in the interval $A-B$.

4. Points C and D are also centered about the 5 second mark. What is the average velocity over this interval?

5. What is your best estimate of the value of the instantaneous velocity at the 5 second mark?