

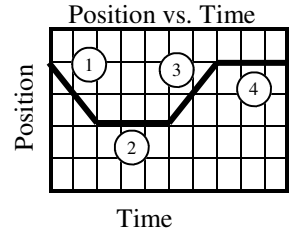
Name: \_\_\_\_\_  
 Period: \_\_\_\_\_

**HWUnit6:3 — Graphing Linear Motion**  
**Mr. Murray, IPC**  
**cstephenmurray.com**

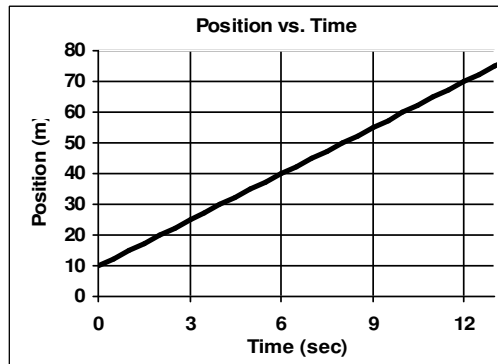
**Assigned: Wed., 1/10 and Thurs., 1/11**  
**Due: Fri., 1/12 and Tues., 1/16**

- Use “How to Solve Word Problems”: *A 4 kg object has 12 kgm/s of momentum. How fast is it moving? (Show all steps!)*
- If a person walks 20 m in 40 seconds, find speed.
- If  $v = \frac{d}{t}$  what does d = ?
- If a person walks 1 m/s around a corner, did they accelerate? Why or why not?
- A car starts at rest. If 10 seconds later it is traveling 15 m/s, calculate the acceleration of the car. (Show steps)

- Which segment
  - Negative velocity?
  - Moving forward?
  - Not moving?
  - Positive velocity?
  - At rest?



- Where does the object start?
- What does the slope mean?
- Where is the object after 12 sec?
- Find the slope of the line.



- Draw a line that shows an object at rest 20 m away (label it as “Line B”).
- Draw a line that shows a faster speed than the given line (label it “Line C”).
- And, yes, draw “Line D” as negative speed.

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- Which variable on the graph is independent?
  - Dependent or Independent?
    - Time?
    - Position?
    - Acceleration?
    - y-axis?
  - Manipulated or Responsive?
    - x-axis?
    - y-axis?
  - When is time a dependent variable?

19. Draw dots to show constant speed.

20. Draw dots to show an object slowing down (neg. acceleration).