Name: _____

Period:_____

HW Unit 6:6 — Test Review
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Assigned: Mon., 1/22 and Tues., 1/23
Due: Wed., 1/24 and Thurs., 1/25

1. What is a vector?

2. A person is walking 2 m/s as they turn a corner.
   A) Does their speed change?
   B) Does their velocity change?
   C) Are they accelerating?

3. A car accelerates at $3 m/s^2$.
   A) How much velocity does it gain every second?
   B) If it starts at rest, how fast is it going after 3 seconds?

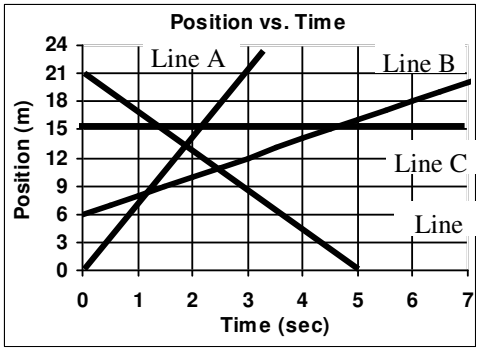
4. A 5 kg object is going 4 m/s. Find momentum (*Show work!).*

5. A car going 30 m/s stops in 3 seconds. Find its acceleration.

6. Car A is going 5 m/s. Car B is going 2 m/s.
   A) ____Which has a faster speed?
   B) ____Which one goes farther first?
   C) ____Which on takes more time to get to 40 m?
   D) ____Which one travels a greater total distance?

7. Which has more momentum:
   A) Fast hammer or slow hammer?
   B) Fast hammer or fast piece of paper?
   C) Fast hammer or a nail in the wall?

8. Which line is
   A) Fastest?
   B) Negative speed?
   C) Slow + speed?
   D) At rest?
   E) Going backwards?
   F) Where does Object A start?
   G) Which takes 3 s to get to 21 meters?
   H) What does the slope of this graph tell us?
   I) Find the slope of Line B.



   J) Which is the independent variable on the graph?

9. A car going 25 m/s stops. Which is = 0, v_i or v_f?

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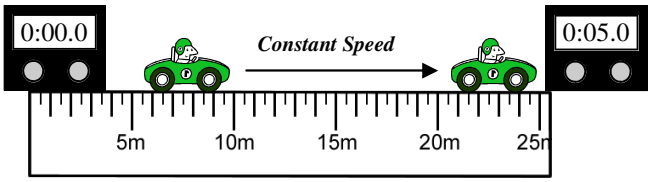

10. Find the speed of the above car (*show work*).

11. If two objects have net momentum of 10 kgm/s before they collide, how much do they have afterwards?

12. Find the net momentum of these two objects: