Name: _____

Period:_____

HW Unit 6:5 — Momentum
Mr. Murray, IPC
cstephenmurray.com

Assigned: Thurs., 1/18 and Fri., 1/19
Due: Mon., 1/22 and Tues., 1/23

1. Why is it important that momentum is a vector?

2. Which has more momentum: a large parked car or a slow moving feather?
3. Why?

4. Which has more momentum: a fast moving bowling ball or a fast moving ping pong ball?
5. Why?

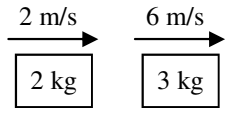
6. How can an object have negative momentum?

7. A 4 kg object is moving 3 m/s *to the right*. Calculate momentum.

8. A 2 kg object is moving 5 m/s *to the left*. Calculate momentum.

9. What does the symbol "Σ" mean?
10. What is net momentum?

11. Calculate the net momentum of the two objects at the right.

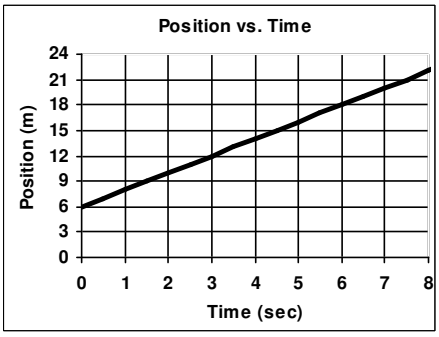


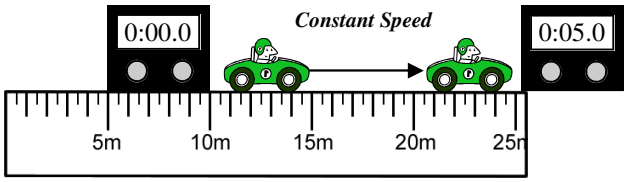
12. How does a balloon fly? *(be specific and use physics terms)*

HW Unit6:4

13. If the graph is of a 4 kg object.
    A) Where does it start?
    B) What does the slope of the graph tell us?
    C) Find the slope.

    D) Find the momentum of the object.





16. If the above car has a mass of 200 kg, find momentum.

14. If two objects have a net momentum of 50 kgm/s before they collide, how much momentum do they have afterwards?

15. When a person throws something to the right, what happens to the person?

17. A 5 kg gun shoots a .25 kg bullet. Both are at rest to begin with. If the gun goes backwards (recoils) to the left at 1 m/s, how fast does the bullet go? *(Use notes, bottom left.)*