



Physics 117a Announcements

☛ **Don't forget Reading Questions**

- Eastern Time Bug!!!!
- Due 1 hr before lecture so I can look at your answers.

☛ **Don't forget about Help Desk**

- It is expected you will have questions
- That is what the help desk is for!

☛ **Outline of Today's Lecture:**

- Circular Motion
- Relative Motion
- Forces

Question #1

- ✦ At *some* point during the motion of an object, is it possible for its:
- A. Velocity to be zero, but its acceleration to be non-zero.
 - B. Acceleration to be zero but its velocity to be non-zero.
 - C. Velocity to be changing but its acceleration be zero.

Choose all that apply!!!

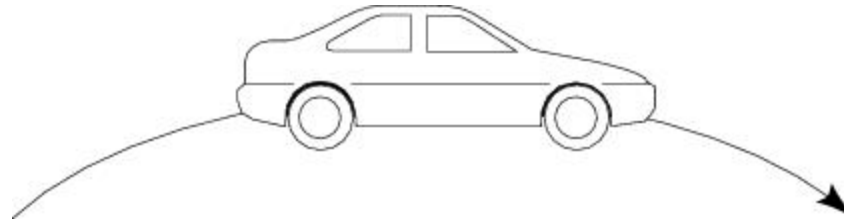
Question #2



- What is the fastest way to row across a river with a strong downstream current?
- A. Aim your boat partially upstream. The point is to minimize the length of the path you take.
 - B. Aim your boat directly across the river. Your path will be longer but the time it takes to cross will be shorter.
 - C. None of the above.

Question #3

- ✦ A car rounds a curve while maintaining a constant speed. Is there a net force on the car as it rounds the curve?



- A. No-its speed is constant.
- B. Yes.
- C. It depends on the sharpness of the curve and the speed of the car.

Question #4

- ✦ Three forces act on an object. What can you infer about its motion?
- A. It has a single (unique) acceleration.
 - B. It has two different acceleration vectors.
 - C. It has three different accelerations.
 - D. The acceleration is not constant.

Question #5



You throw a ball straight up. After you have released it, but before it reaches its maximum height, what force(s) are acting on the ball?

- A. Gravity (down)
- B. Gravity (down) and inertia (up)
- C. Gravity (down) and the force of the throw (up)
- D. Inertia (up)