Hand in This Sheet **Name**_____

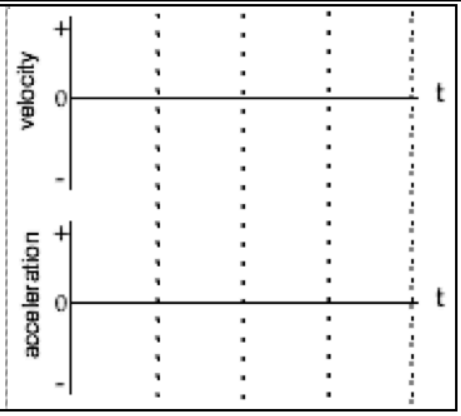
SAMPLE INTERACTIVE LECTURE DEMONSTRATION PREDICTION SHEET

Note: This is a sample of interactive demonstrations. They do not represent a coherent sequence. See the tested sequences of demonstrations in the book, Interactive Lecture Demonstrations, available from Wiley.

Directions: This sheet will be collected as a record of your attendance and participation. Print your name at the top. You may write anything you like on the attached *Results* sheet and take it with you.

Demonstration 1: Sample Kinematics Demo

A cart is subjected to a constant force in the direction towards the motion detector. Sketch on the axes on the right your predictions of the velocity and acceleration of the cart after it is given a short push away from the motion detector (and is released). Sketch velocity and acceleration as the cart slows down moving away from the detector, comes *momentarily* to rest and then speeds up moving towards the detector.



Demonstration 2: Inventing Gravitational Force Demo

The origin of the coordinate system is on the floor, and the positive direction is upward. The ball is thrown, moves upward, slowing down, reaches its highest point and falls back downward speeding up as it falls. Sketch on the axes on the right your predictions for the velocity-time and acceleration-time graphs of the ball from the moment just after it is released until the moment just before it hits the floor.