

Fall 2008

Phys 201A

Name _____

Partners _____

Lab 6 – Measuring acceleration - due at the end of class.

In this lab, we will measure three different accelerations:

a) Your acceleration as you run towards or away from the motion sensor - try different motions (speeding up, speeding up then slowing down)

Results

Type of Motion	Sign of velocity	Sign of acceleration	Magnitude of acceleration
Speeding up moving towards			
Speeding up moving away			
Slowing down moving towards			
Slowing down moving away			

b) Incline the track and try the same motions with a cart (careful - do not let the cart hit the sensor!)

Type of Motion	Sign of velocity	Sign of acceleration	Magnitude of acceleration
Speeding up moving towards			
Speeding up moving away			
Slowing down moving towards			
Slowing down moving away			
Slowing down then speeding up			

c) Measure the acceleration due to gravity in the lab using one of the balls provided. You must take at least five independent measurements. Create your own table and report the value of 'g'.

d) Drop a sheet of paper - what kind of acceleration does it have? What factor is an important consideration in this motion?