2016

Uniform Acceleration Lab (Prelab)

David Abbott
Buffalo State College, abbottds@buffalostate.edu

Uniform Acceleration? Name: _____

Prelab Sheet

In this lab, you will make and analyze an iPad video of a cart as it travels up a ramp and then comes back down.

1. Watch directions on how to use the Vernier Video Physics app at https://www.youtube.com/watch?v=XLU2v1rgTAk (~9 minutes long). Write a brief (1-2 sentences) description of what this app does and how you will use it in the lab.

2. Watch directions on how to use the Vernier Graphical Analysis app at https://www.youtube.com/watch?v=XWNBmJknYfs (~9 minutes long). Write a brief (1-2 sentences) description of what this app does and how you will use it in the lab.

A person gives a cart a quick push up a ramp. After the cart loses contact with the person's hand, the cart slows down, and eventually comes back down the ramp and is caught. Only consider what happens from *just after* the cart is released until *just before* it is caught.

3. On the axes below, sketch what you think a graph of ***velocity*** versus time for the cart will look like.

4. Do you think the cart's velocity will be zero at any moment during the run? If so, when? Explain.

5. Do you think the cart's acceleration will be zero at any moment during the run? If so, when? Explain.