Experiment 4: Two-Dimensional Motion

Student Name: _____

Section Number: _____

PRELAB

PRE-LAB Instructions:

Print out this page. Feel free to refer to the lab Instructions and other materials, your physics textbook, other students, etc. to help you to ponder, understand, and work out answers to the following question(s). Show your work & answers in the space(s) provided.

PRE-LAB Questions

1) What is the relationship between a projectile's range and its elevation angle (derive the equation)? Show your work.

2) Clearly explain how will you determine the projectile's initial velocity from your measurements in this experiment.

3) If a ball launched at an angle of 10.0 degrees above horizontal from an initial height of 1.50 meters has a final horizontal displacement of 3.00 meters, what is its launch velocity? Show your work.