PH201 LBCC **Pre Lab Exercise for Projectile Motion** Name_____

Lab Section_____

This lab will be the closest we will come to a medieval armament specialist in this physics class. To safely do these shooting exercises we need to come to lab well prepared. Here are a few questions – you might need extra paper (-:

1. What do the mathematicians call orthogonality?

2. Assume you are dropping a ball from a height of 1.11m starting from a resting position. How long does it last for the ball to reach the ground?

3. A ball is rolling with an initial velocity of 5.55 m/s over a table moves over the edge and falls to the ground. How long is the ball in the air when the table is 1.11m high.
   i. How long is the ball in the air, before it hits the ground?
   ii. How far from the edge of the table does the ball land on the ground?

4. A ball with an initial velocity of 5.55 m/s is shot under an angle of 45 degree using a launcher. The launcher is 1.11m high.
   i. How long is the ball in the air, before it hits the ground?
   ii. How far from the launcher does the ball land on the ground?