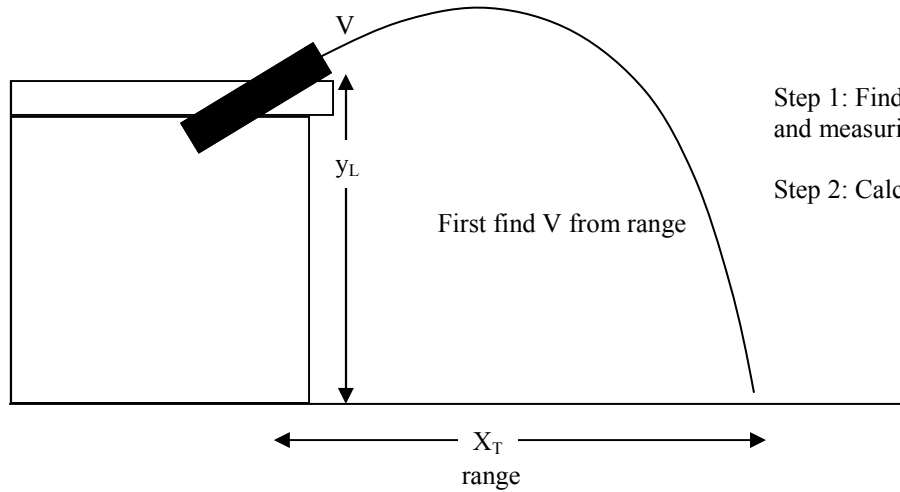
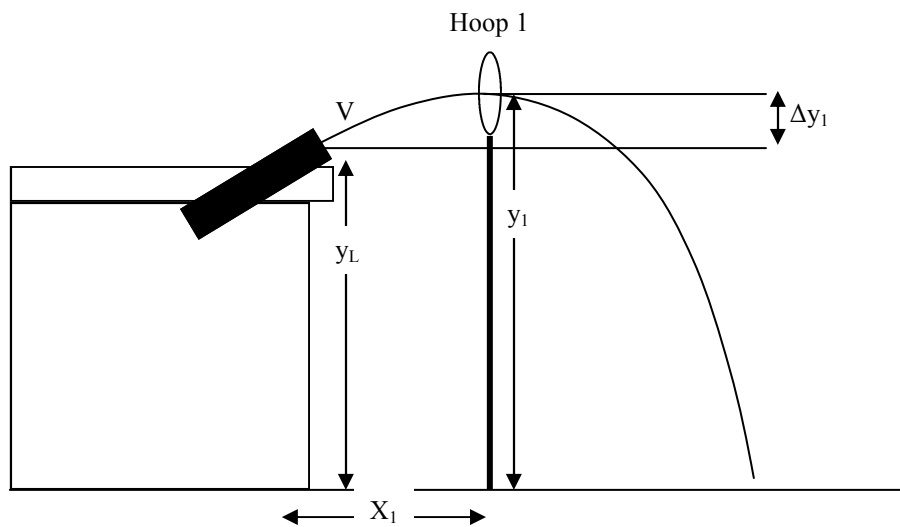


PreAP Lab: Shoot the Hoops



Step 1: Find range by shooting the projectile and measuring where it lands.

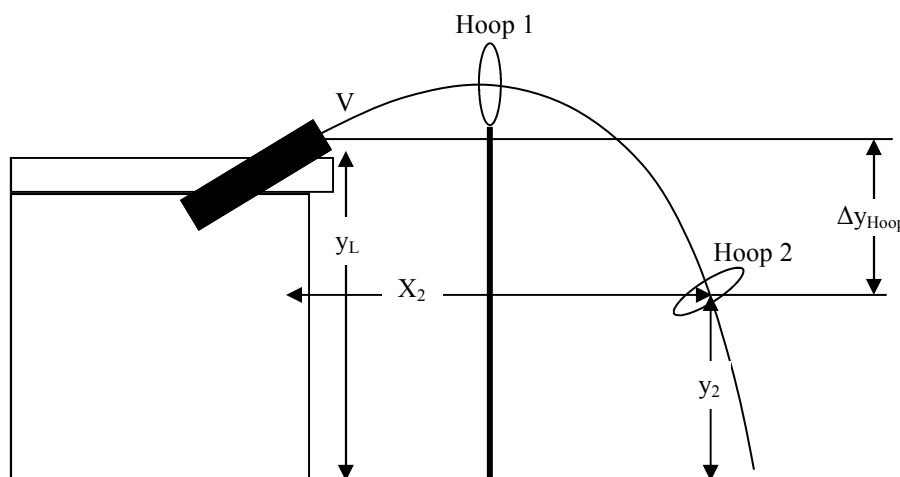
Step 2: Calculate V from range (X_T) and θ .



Hoop 1 is at the apex of the projectile's path.

You will need to find Δy , y_1 , and x_1 .

You have enough information to do so.



Hoop 2 is at a height that is $1/2$ the distance from the ground to hoop 1 ($y_2 = y_1/2$).

You will have to find x_2 and y_2 to place the hoop.

To find its angle, you need to find the velocity vector at that point.

You have enough info.