AP Physics Name:_____
Projectile Lab

Using Technique, take a video of a ball launched at an angle with a brick wall as your background.

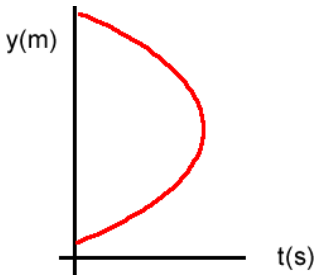
TIPS:
1) Don't move your camera, keep it as still as possible. Bring out a stool and rest the camera while you film.
2) Try and get the ball to move across the entire camera frame. You may have to take several trials.
3) "Zero" your timer when your ball is at a convenient location (like crossing a brick line)
3) Learn Excel…it will make your life so much easier.

Purpose:
Verify that acceleration only happens in the vertical direction by graphing a thrown ball.

Turn in the following.
1) Purpose
2) Procedure
3) Data
4) Calculations (graphs should be here...include the following graphs: x vs t, y vs t, v_x vs t, and a v_y vs t)
5) Conclusion: This is where you should explain
    a) how <u>each</u> of the graphs satisfies the purpose
    b) error analysis
    c) follow up questions

Follow up questions:

1) Suppose a fellow student shows you the following graph and asks you why they are so different from the rest of the groups in class. What advice would you give them?



2) Suppose the experiment is done on the moon where the acceleration of gravity is 1/6th of Earth's. Sketch how the following graphs would be different. Please <u>screen shot</u> these graphs and put your answers on them.