

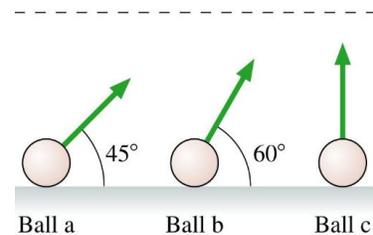
This week's lab is using concepts from PH201. A good opportunity to review. Before you start this prelab, read pages 9-18 of your lab manual.

1. "I have read my lab manual introduction, and will ask about anything I do not understand."

Sign Here: _____

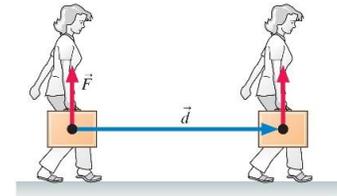
2. Why do you need to do a sketch of the experiment in your lab book?

3. The three balls on the right, which have equal masses, are fired with equal speed at the angles shown. Rank in order, from smallest to largest, their speeds v_a , v_b , and v_c , as they cross the dashed horizontal line. All three balls are fired with sufficient speed to reach the line.



4. The woman in the picture carries a suitcase. The suitcase has a mass of 23.7 kg, and she carries it for 2.50m.

What is the work she performs on the suitcase?

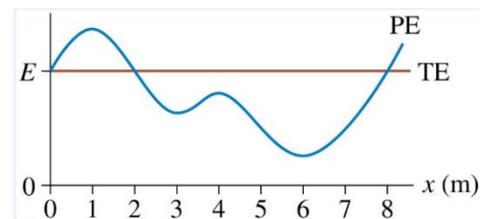


5. A skate boarder with the potential energy shown in the figure is boarding to the right at $x = 5\text{m}$ with total Energy TE.

a) At what value or values of x is this snowboarder's speed a maximum?

b) Does this snowboarder have a turning point or points in the range of x covered by the graph? If so, where?

c) If E is changed appropriately, could the particle remain at rest at any point of points in the range of x covered by the graph. If so, where?



At times I add to the prelab some guidelines to the lab similar to the following for this week:

- Do the experiment several times. Make sure your analysis (this can be graphic interpretation of your data) allows you to finish the following sentence and to explain the reader how you came up with the statement: "I am 70% confident that the ball in my experiment will land at a range between _____cm and _____cm" (range measured horizontally from the razor blade). You will find this also in your postlab.