

PRELAB 3: FORCE AND ACCELERATION

COMPLETE THIS EXERCISE BEFORE COMING TO LABORATORY AND TURN IN AT THE BEGINNING OF LAB 3

[10 points] In this week's lab you will be measuring the mass of a system by measuring how fast it accelerates when acted upon by a force. You will use 5 different amounts of force and so obtain 5 different accelerations.

a. If you plot the acceleration on y-axis and the force on the x-axis for these 5 runs, what should the shape of the graph be and why? (5 points)

b. What physical quantity is the slope of this line and what units should it have? (3 points)

c. What value should the intercept have and why? (2 points)

