

Prelab 5

Assume you have a frictionless plane with a block starting with an initial velocity of 0 m/s and a constant force exerted on the block parallel to the plane. You may choose the mass of the block and the force exerted on the block. However, be aware that you will have to vary the mass of the block several times in the course of the pre-lab.

- a) Make a graph of the acceleration of the block vs. the mass of the block for a particular force. Be certain to turn in a data table with the graph and a discussion of your reasoning. (you may hand-draw the graph or using Excel or any software.)
- b) Change the force to another value and make a new graph of acceleration of the block vs. the mass of the block.
- c) Discuss the relationship of the force and the shape of your graphs.