

## AP Physics 2 Lab # 1 – Newton's 2<sup>nd</sup> Law

Name \_\_\_\_\_

Grade \_\_\_\_\_

Objective: To determine if a laboratory cart's motion obeys Newton's 2<sup>nd</sup> Law of Motion.

Graph: Submit a graph of your data through the Moodle. Be sure your graph has the following items:

- Title
- Axes labeled with variable and unit
- Error bars in both the x and y directions
- Best fit curve and equation

Validity Statement: Write a validity statement about this experiment. When writing your validity statement for this lab remember the following:

- Start with a statement – are the results valid or not?
- Give evidence to support the statement. The absolute uncertainty and the relative uncertainty are good pieces of evidence to use along with the information from your graph. If there were avoidable errors that affected the results include a discussion of them.
- Identify and discuss sources of uncertainty in your results.
- Suggest improvements to the lab procedure if the experiment were to be repeated.