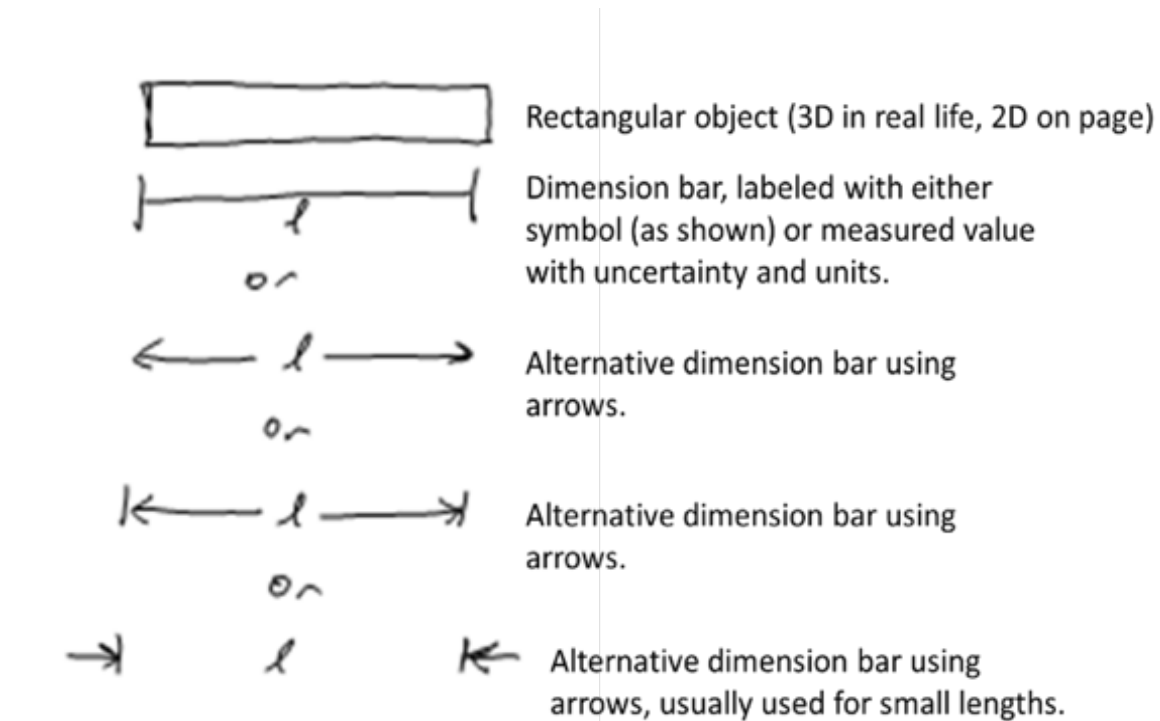


Schematic Drawing Guide

Most of the experiments that we will do this semester will have an apparatus that is important to detail within a schematic. It is a great way to show and define the quantities that you measure. These should be representative sketches and not fancy 3D drawings. Your drawing should make clear the important features of the apparatus, so choose a perspective that shows those key details. (For example, for a cart traveling down an inclined plane, draw your schematic from the side so the tilt is shown.) The quantities you measured should be clearly labeled on the schematics. Every length you measure should be indicated with a labeled dimension bar, as shown.



Grading Lab Notebooks

Lab instructors will consider the following list of items as appropriate when evaluating your submitted work:

Repeatability

- Is the procedure correctly summarized in the students' own words? Does the student say what they did?
- Are parts of the procedure that were not specified in the instructions also included?
- Does the schematic drawing include everything important to the procedure?
- Does the schematic avoid unnecessary detail?
- Is the schematic well-labeled?
- Could another physics student use your written record to repeat the experiment?

Analysis

- Is the raw data displayed in an organized manner and appropriate format?
- Are all algebraic symbols and measured quantities clearly defined in words or with a schematic?
- Are observations clear?
- Are all necessary plots included?
- Are all axes clearly labeled? (Axis labels may be in English or with clearly-defined algebraic symbols. Don't forget units!)
- Does the schematic drawing include everything important to the analysis?
- Did the student solve the puzzle of how to take the measurement and use the data to arrive at a conclusion?

Correct Physics

- Is the physics correct?
- Are all of the units correct?
- Does the write-up describe the most important physics at play?
- Are equations accurate and relevant?
- Are calculations shown as necessary?
- Is uncertainty propagated correctly throughout the calculations?
- Do the results and conclusions follow from the raw data?
- Was there evidence of a systematic error and/or a random error?