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Lab Report Assignment: Lab #3 Problem #4

Due Thursday, October 24th at the beginning of discussion

Modified Conclusion Questions:

Because you can not answer all of the questions posed in the conclusion, here are the questions that MUST be answered (although you can and should explore other facets of the experiment).

- Does the shape of the measured graph match the shape of the predicted graph?

- Is your coefficient of friction value reasonable? While the coefficient of friction for your materials may not be in the table, based on those materials listed in the table, does your value seem reasonable?

- What are the limitations on the accuracy of your measurements and analysis? You should explore this both in terms of

  - The general, abstract, design of the experiment (does the procedure make sense in testing the question that was asked?)

  - What specific parts of your set-up limited your evaluation of the questions at hand AND how did they limit that evaluation.

  - How might you fix any issues mentioned in the two bullet points above?

- **Explain** (i.e. don't actually do any calculations) any other ways of using your data (that you already have!) to calculate μ_k and why those methods may or may not, in your expert opinion, be better.

A few more small points

- Please remember to put error bars on your graphs. If you do not remember how to do this in excel ask me, or one of your group members.

- ALWAYS calculate uncertainty, and use it in your evaluation of the success of the problem. For this lab, the real question is whether or not there is a good linear fit to your data, and whether the fit parameters make physical sense.