

1. Looking at the raw data provided, it would make sense to try and find the coefficient of friction μ_k and μ_s (kinetic and static) between the different surfaces.
2. So as to not get overwhelmed, maybe it would be interesting to write TWO separate research questions that can be answered by this raw data. For example:

How does the speed of pulling the block affect the coefficient of friction(static and kinetic)?

(note: do not use this question as the data provided will not answer it. This is just an example)

3. Organize the data that can be used to specifically answer the two questions, into numbered and titled raw and processed data tables. You can omit any raw data that isn't relevant. Calculate uncertainties for the averages of the trials to use as error bars in your graphs.
4. Make a LoggerPro graph with error bars and label the axes so that the slope of the best fit straight line will represent μ . You need to decide if multiple data sets can be placed on the same axes or if separate graphs are needed. Graphs need to be neat and clear with numbers and titled. Include min and max lines to estimate the uncertainty in μ .
5. Write a formula conclusion statement that answers each research question and refers to the graphs and data as evidence/justification.
6. Make a comment on what could represent a reasonable random error and a systematic error in Ms. Cooper's data. Make sure your answers are specific and correctly convey your understanding of the difference between these two kinds of experimental error.

