Introductory Lab: The Thickness of a Page

Purpose: To determine what number pages a bookmark is between in a book that is taped shut.

The class will have access to a book with a bookmark in it that is taped shut. It will be put in a central location (not to be removed from there!). You may only bring a measuring device such as a ruler and paper and a writing utensil with which to record data with you when you examine this book.

You will also be provided with a copy of the same book that you can open and measure at your desk.

In groups of 2, you will write a mini lab report including the following sections:

Hypothesis:
A hypothesis should be an educated guess based on research or preliminary data. Determine a quick method that you can use to estimate where the bookmark may be. Explain your method, including any data you take, and your preliminary hypothesis.

Procedure:
How can you refine your experiment to get more accurate results? A page is not very thick, so quick measurements could make your hypothesis off by several pages. We will work on writing more formal lab reports later on, but for now, write a paragraph describing your method for collecting the data to more accurately determine the placement of the bookmark.

Data/Data Analysis:
Include all observations and data that you take.

Data Analysis
Include any graphs, and calculations that you make.

Conclusion:
Discuss your final answer and how it compares to your original hypothesis. Also discuss areas of possible experimental error. Experimental error is always with us; it is in the nature of scientific measurement that *uncertainty* is associated with every quantitative result. This may be due to inherent limitations in the measuring equipment, or of the measuring techniques, or perhaps the experience and skill of the experimenter. What are the limitations of your method?