LW#5~ UNCERTAINTY OF MEASUREMENT
FOR FULL CREDIT ON THIS ASSIGNMENT, YOU MUST HAVE:

- **TITLE**
- **PROBLEM**
- **DATA TABLE HANDOUT COMPLETED**
  - **EACH DATA TABLE must have 2 names**
  - **All data filled in**
  - **All averages calculated**
  - **ANALYSIS QUESTIONS ANSWERED IN COMPLETE SENTENCES (4 questions)**
  - **CONCLUSION WRITTEN**

LW#5: THE UNCERTAINTY OF MEASUREMENT

PROBLEM:

What are the limitations to how accurately matter can be measured?

ANALYSIS:

1. Which stations had measurements that were the LEAST reproducible (in other words, which stations had the greatest variety of answers)?
2. Describe at least two reasons why this station may have had inconsistent answers.
3. Is it possible to be precise and not be accurate? Explain why you think that.
4. In science, an "OUTLIER" is defined as:
   "A piece of data that appears to be significantly different than the rest of the data in the sample in which it occurs." Therefore, outliers may indicate faulty data or erroneous procedures.
   -Find a station with an outlier and infer what may have caused it.

CONCLUSION:

❑Write a concluding paragraph which includes the following:

➢**SUMMARIZES WHAT WAS DONE IN THE EXPERIMENT AND WHY IT WAS DONE:**

"In this experiment we_____in order to determine_____"

➢**ANSWERS THE TESTABLE QUESTION:**

"Some limitations to how accurately matter can be measured are_____"

➢**PROVIDES SPECIFIC EVIDENCE FOR YOUR CLAIM:**

"For example, our data was not as accurate in the station with the _____, because_____