

How to Prepare a Lab Report
Chem 111 2008

This document explains how you should prepare lab reports for most of the laboratory experiments in this course. This format should be used unless you are told otherwise. Consider an experiment that could be done:

Determination of Height in Metric Units

While standing against a wall ask one of your team members to use a pencil to make a mark in line with the top of your head (for accurate results stand on a flat level surface). Using the 60-inch tape measure provided determine the distance of the line from the floor. Please note that you may need to make additional marks to account for distances greater than 60 inches. Record this measurement to the nearest half inch. Repeat for each team member such that you have four measurements in all.

- (1) Report each person's height in meters; ensure that you report the correct number of significant digits.
- (2) Report the average (mean) height of your team in meters and centimeters.

An example lab report is shown on the next page. Your job is to describe why you did the experiment, how you did it, what you observed, and what you conclude from those observations.

Additional Notes:

- The Aim of the experiment is rarely more than two sentences.
- You need not reproduce the procedure for the experiment; just cite it from the lab handout and note any changes.
- Calculations should be included in the results section. You may use a spreadsheet to report calculations, however you must show an example calculation (this may be either hand- or type-written).
- When recording data do not round, enter all the decimal places indicated unless otherwise specified (as is the case for this hypothetical lab).
- Recording non-data observations is a good habit to get into particularly for future chemistry course and careers.
- Ensure information is legible!
- Conclusions should directly address the Aim of the experiment.

Aim:

To determine the height of the four students in Team Z in metric units.

Procedure: As outlined in instructions provided. No changes were made to the procedure.

Data:

Team Member	Height in inches
Student 1	65.5
Student 2	72.0
Student 3	67.5
Student 4	59.5

Observations: Student 4 removed his shoes for this experiment, all the other students kept their shoes on.

Results:

Example Calculation:

Student 4

$$59.5 \text{ inches} \times \frac{2.54 \text{ cm}}{1 \text{ inch}} \times \frac{1 \text{ m}}{100 \text{ cm}} = 1.51 \text{ m}$$

Team Member	Height (m)
Student 1	1.66
Student 2	1.83
Student 3	1.71
Student 4	1.51

Conclusion:

The average height of the members in team Z is 1.68 meters. This is equal to 168 centimetres.