

Analysing Results

Physics

Turning measurements into a defensible conclusion.

From raw data to a conclusion.

1

Tabulate with units

Units and uncertainties in the column headings, not in each cell.

2

Calculate derived quantities

Keep full precision, and propagate the uncertainties.

3

Plot and fit

Extract the gradient and intercept with their uncertainties.

4

Compare to prediction

Does the accepted value fall inside your uncertainty range?

5

Account for any discrepancy

Name a specific mechanism, not just 'human error'.

6

Suggest improvements

Say which change would most reduce the dominant uncertainty.

Identify which single measurement contributes the largest percentage uncertainty. That is the one worth improving.