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# Topic Outline

3c2: Numerical Analysis

**Assumptions**

**Formulations**

**Example Applications**

# Assumptions

## Numerical Analysis

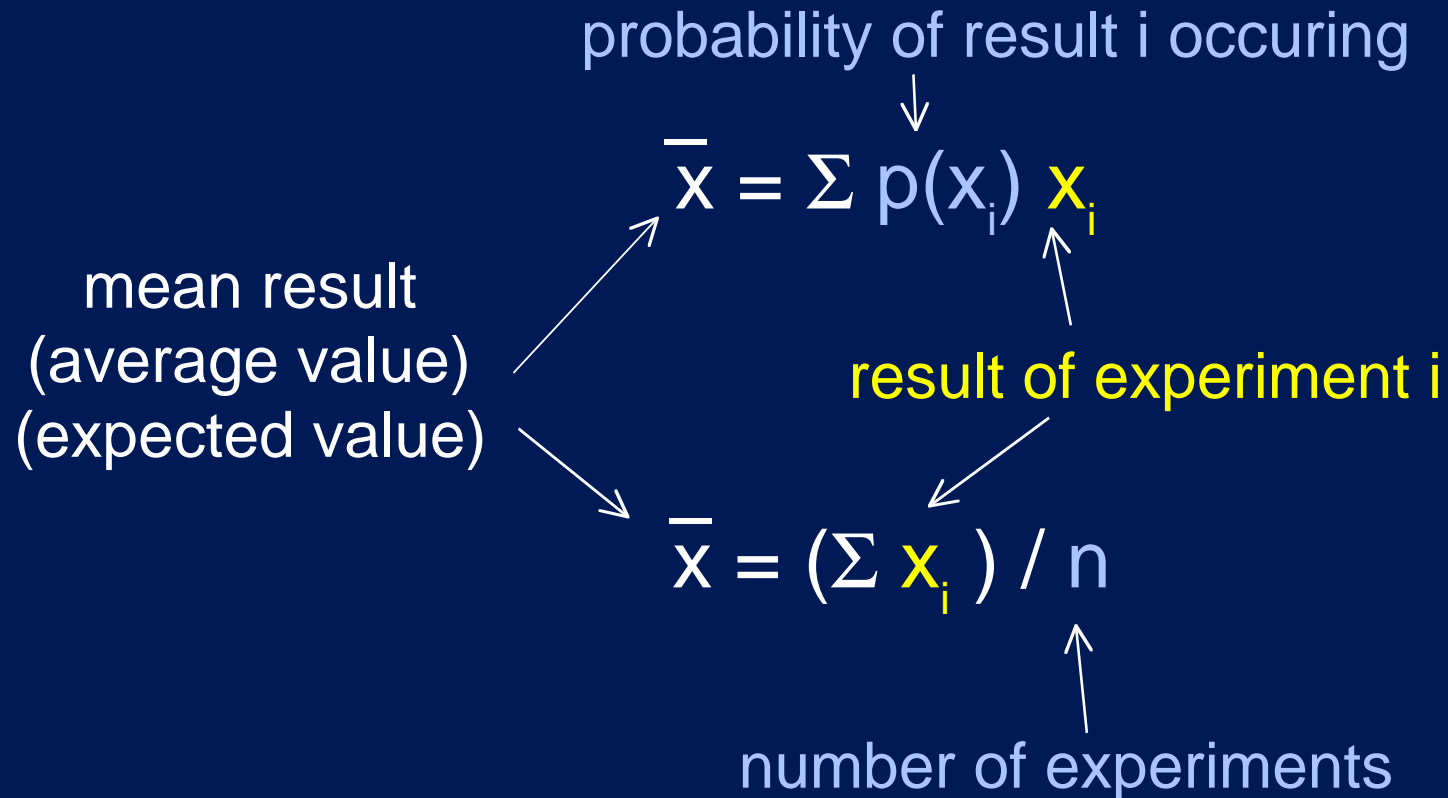
The result of an experiment is dependent on the experimental parameters in a defined way.

The errors in an experiment are “well - behaved”.

Repeating an experiment with the exact same conditions will lead to exactly the same result (within the confines of quantum mechanics and the errors in the system).

# Formulations

## Numerical Analysis



# Example Applications

## Numerical Analysis

In relation to the techniques of interest to this course, numerical analysis is important for determining

- compositions

- peak parameters (positions and half-widths)

- calculated values (layer thickness)

You should **always** do more than one experiment under the same conditions in order to report an expected value rather than the result of one trial.