

# Mathematical Methods II

Exams:

70% Exam

30% Continuous Assessment (3 parts)

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# 1 Week 1: Introduction to Statistics

## Definitions

- **Population:** A group of objects or people with a shared characteristic.
- **Sample:** A subset of the population.
- **Parameter:** A numerical value that represent a characteristic of the population.
- **Statistic:** A numerical value that represent a characteristic of the sample.

## Types of Variables

- **Qualitative:** Categorical data that can be divided into groups.
  - Nominal data: Data that cannot be ordered. (eye color)
  - Ordinal data: Data that can be ordered. (hurricane category)
- **Quantitative:** Numerical data that can be measured.
  - Continuous data: Data that can take any value within a range. (height)
  - Discrete data: Data that can only take specific values. (number of siblings)