

Mathematical notation:

- Subscripts: y_1, y_2, \dots, y_n
- Summation notation: evaluate the following when $n = 4$, $y_1 = 2$, $y_2 = 4$, $y_3 = 1$, $y_4 = 6$, and $c = 4$:

$$\sum_{i=1}^n y_i, \quad \sum_{j=1}^n (y_j - c)^2, \quad \sum_{k=1}^3 (3y_k + 4), \quad \sum_{i=1}^n 2\mu$$

Formulas:

- Mean, variance, and standard deviation of a set of numbers

Random variables:

- Definition of a random variable
- Distribution of a random variable
- Expected value, variance, and standard deviation of a random variable
- Independent random variables
- Expected value and variance of sums of independent random variables
- Expected value and variance of linear combinations of independent random variables

- t distribution, normal distribution
- quantile of a distribution

Terminology:

- Population
- Sample
- Parameter
- Statistic
- Estimate
- Estimator
- Sampling distribution of an estimator
- Confidence interval
- Margin of error