



Lesson 3: Calculating Frequency and Percentage

What is Frequency?

Frequency refers to **how many times** a particular response, value, or category appears in your data.

What is Percentage?

Percentage expresses the frequency as a **proportion of the total** number of responses, usually out of 100. It helps show **how significant** or **popular** each category is relative to the whole dataset.

Formulas:

1. **Frequency:**
Simply **count** how many times a value occurs.
2. **Percentage:**

Formulas for Frequency and Percentage:

1. Frequency: Count how many times a value appears.

2. Percentage:

$$\text{Percentage} = (\text{Frequency} / \text{Total Number of Responses}) \times 100$$



Example:

Let's say you asked 20 students, "What is your favorite drink?"

Raw Data:

Coffee, Tea, Coffee, Juice, Water, Coffee, Tea, Juice, Juice, Water,
Tea, Coffee, Juice, Coffee, Water, Tea, Juice, Coffee, Tea, Water

Step 1: Tally Frequency

Drink	Frequency
Coffee	6
Tea	5
Juice	5
Water	4
Total	20

Step 2: Calculate Percentage

Drink Frequency Percentage

Coffee 6 $(6/20) \times 100 = 30\%$

Tea 5 $(5/20) \times 100 = 25\%$

Juice 5 $(5/20) \times 100 = 25\%$

Water 4 $(4/20) \times 100 = 20\%$

- **Frequencies** show the count of responses (e.g., how many students prefer coffee).
- **Percentages** help compare categories regardless of sample size.
- These values are often presented in **frequency tables**, **bar charts**, or **pie charts** for clear interpretation.