
Exercises Series 01

Exercise 1

A study is carried out in a high school to determine:

- the number of siblings of each student,
- the favorite sport of each student,
- the weight of each student.

1. Identify the population.
2. What is an individual in this study?
3. For each characteristic, give:
 - (a) the name of the variable;
 - (b) the possible modalities;
 - (c) the type of character.

Exercise 2

A hospital collects data on its patients including: sex, age, blood pressure, department of hospitalization.

1. Identify the population and the individuals.
2. Determine the type of each variable.

Exercise 3

A teacher records the exam results of students:

- Student's name,
- Student's major,
- Final exam grade (on 20),
- Attendance rate (in %).

1. Identify the population and individuals.
2. For each variable, specify:
 - (a) whether it is qualitative or quantitative;
 - (b) if quantitative, discrete or continuous.

Exercise 4

For each of the following studies, identify the population, one possible individual, the variable studied, and its type.

1. Measuring the temperature of each day in January.
2. Recording the color of cars passing through a toll gate.
3. Measuring the number of visits each patient makes to a clinic.
4. Measuring the height of 100 randomly chosen trees in a forest.

Exercise 5

A survey was conducted among 60 students about their preferred mode of transportation.

Mode of Transport	Bus	Car	Bicycle	On foot
Number of students	25	15	10	10

1. Construct the frequency table.
2. Represent the data using:
 - (a) a pie chart,
 - (b) a bar chart.

Exercise 6

The table below shows the number of children in 20 families.

Children per family	0	1	2	3	4
Frequency	2	3	8	5	2

1. Compute the relative and cumulative frequencies.
2. Draw the corresponding bar chart.

The following data represent the ages (in years) of 40 workers:

[20, 30], [30, 40], [40, 50], [50, 60], [60, 70]

with respective frequencies:

5, 12, 15, 6, 2

1. Construct the frequency table.
2. Draw the histogram and the frequency polygon.