Mohamed Khider University – Biskra

Faculty of Exact Sciences

Department of Mathematics

Exercise Series No.1

Introduction to Probability and Descriptive Statistics

1st Year Licence (L1) – Academic Year 2025/2026

Exercise 1

Specify for each variable whether it is qualitative or quantitative, continuous or discrete, ordinal or nominal. Then propose appropriate modalities.

1. Number of brothers and sisters in a family
2. Eye color
3. Level of education
4. Monthly income
5. Weight of a student
6. Gender
7. Age of a person
8. Nationality
9. Type of smartphone
10. Marital status
11. Number of absences during a semester
12. Height of basketball players
13. Type of disease
14. Blood group
15. Number of customers per day in a shop

Exercise 2

Consider the following characteristics. For each case, specify the population, the character studied, and its nature (qualitative or quantitative).

1. The annual salary of employees in a company
2. The number of children in households of a city
3. The favorite sport of students in a university
4. The age of teachers in a high school
5. The brand of cars owned by families
6. The grades obtained by students in an exam
7. The marital status of workers in a factory

Exercise 3

The table gives the number of students registered in a mathematics course according to their type of baccalaureate:

Baccalaureate Type	**Number of Students**
Mathematics	110
Experimental Sciences	200
Management and Economics	60
Literature and Languages	50
Total	**420**

Questions:

1. Determine the population, its size, the studied character, its nature, and modalities.
2. Represent the data using a bar chart and a pie chart.

Exercise 4

The table gives the number of mathematics students according to their main means of transport to the university:

Means of Transport	**Number of Students**
Bus	150
Car	90
Bicycle	60
Walking	80
Motorcycle	40
Total	**420**

Questions:

1. Determine the population, its size, the character, its nature, and modalities.
2. Represent the data using a bar chart and a pie chart.

End of Exercise Series No.1