

Exercices Serie N° 5

Exercise 1

Specify the nature of the statistical variable :

- | | | |
|-------------------------------|--------------------|---------------|
| ❶ Place of residence | ❷ Sex | ❸ Blood group |
| ❹ Number of white blood cells | ❺ Size | ❻ Age |
| ❼ Number of languages spoken | ❽ Level of obesity | ❾ Eye color |

Exercise 2

The medical staff of a large company compiles statistics on the monthly sports practice of its employees. The observations on 88 employees are as follows:

$x_i =$ Number of sessions per month	n_i	$n_i^{c\uparrow}$	f_i	f_i^{\uparrow}
8	7			
12	20			
16	23			
20	19			
24	14			
28	5			
Total	88			

- ❶ Determine the population, the character studied and give its nature.
- ❷ Complete the table with cumulative frequencies $n_i^{c\uparrow}$, f_i , $f_i^{c\uparrow}$.
- ❸ Calculate mode, mean and median.
- ❹ Determine quartiles and interquartile range.
- ❺ Calculate the range, variance, standard deviation and coefficient of variation.

Exercise 3

The following data specify the haemoglobin level in the blood (by class, in g/l) measured in 70 presumed healthy men:

Classes	[105, 115[[115, 125[[125, 135[[135, 145[[145, 155[[155, 165[[165, 175[[175, 185[
n_i	0	0	3	4	18	19	12	14

- 1 Determine the population, the character studied and give its nature.
- 2 Complete the table with cumulative absolute frequency $n_i^{c\uparrow}$, relative frequency f_i and cumulative relative frequency $f_i^{c\uparrow}$.
- 3 Calculate mode, mean and median.
- 4 Calculate the range, variance, standard deviation and coefficient of variation.