

Series of exercises N 5

Exercise 1

Specify the nature of the statistical variable:

- | | | |
|----------------------|-------------------------------|------------------------------|
| ❶ Place of residence | ❷ Number of white blood cells | ❸ Number of languages spoken |
| ❹ Sex | ❺ Size | ❻ The level of obesity |
| ❼ Blood group | ❽ Age | 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	$f_i^c \uparrow$
8	7			
12	20			
16	23			
20	19			
24	14			
28	5			
Total				

- ❶ Determine the population, the character studied and give its nature.
- ❷ Complete the table.
- ❸ Represent the statistical series graphically.
- ❹ Calculate mode, mean and median.
- ❺ Determine quartiles and interquartile range.
- ❻ Calculate the range, variance, standard deviation and coefficient of variation.
- ❼ Calculate the Pearson's skewness coefficient, and give the necessary conclusion.

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

- ❶ Determine the population, the character studied and give its nature.
- ❷ Complete the table with the cumulative absolute frequency n_i^c ↑, relative frequency f_i and cumulative relative frequency f_i^c ↑.
- ❸ Represent the statistical series graphically.
- ❹ Calculate mode, mean and median.
- ❺ Calculate the range, variance, standard deviation and coefficient of variation.