Series of exercises 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 The level of obesity

❾ Eye color

Exercise 2

The medical staff of a large company compiles statistics about the number of sessions per month on sports practice of its employees. The observations on 88 employees are as follows:

$x_i =$	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 $n_i^c \uparrow$, relative frequency f_i and cumulative relative frequency $f_i^c \uparrow$.

❸ Represent the statistical series graphically.

❹ Calculate mode, mean and median.

❺ Calculate the range, variance, standard deviation and coefficient of variation.