

## Exercise Series No. 01

### Exercise 1

Specify the nature of the statistical variable:

- (1) Place of residence
- (4) Number of white blood cells
- (7) Number of spoken languages
- (2) Sex
- (5) Height
- (3) Level of obesity
- (3) Blood group
- (6) Age
- (9) Eye color

### Exercise 2

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

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

- (1) Determine the population, the studied characteristic, and specify its nature.
- (2) Complete the table.
- (3) Represent the statistical series graphically.
- (4) Calculate the mode, the mean, and the median.
- (5) Determine the quartiles and the interquartile range.
- (6) Calculate the range, the variance, the standard deviation, and the coefficient of variation.
- (7) Calculate Pearson's skewness coefficient and give the appropriate conclusion.

### Exercise 3

The following data specify the hemoglobin level in the blood (by classes, in g/l) measured in 70 men presumed to be in good health:

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

- (1) Determine the population, the studied characteristic, and specify its nature.
- (2) Complete the table with the cumulative increasing frequency, the cumulative decreasing frequency, the frequency, the cumulative increasing frequency, and the cumulative decreasing frequency.
- (3) Represent the statistical series graphically.
- (4) Calculate the mode, the mean, and the median.
- (5) Calculate the range, the variance, the standard deviation, and the coefficient of variation.