**Control Test 1**

**Description of the data**

The Excel file *control-1.xlsx* contains a table describing data about 30 patients. For each patient we have their blood pressure (column **B**), their height (column **C**) and whether they are healthy (**0**) or sick (**1**) (column **D**). Blood pressure and height data are in a scale going from 1 to 5.

**1) Statistics**

Using the function **СЧЁТЕСЛИМН**, fill the two tables in columns **F, G and H**. For each line, which represents a level of the scale, count the quantity of patients with that level, which is

The function is used as **=СЧЁТЕСЛИМН(data range 1, value 1, data range 2, value 2)**.

Create a bar chart using the columns **G** and **H** of the two tables.

**2) Model**

The result of the exercise above should show that there is a strong connection between blood pressure and being sick.

Write a model for diagnosing sickness using the limit in cell **J2**. The patient will considered sick if their blood pressure is larger than the limit, and healthy otherwise. Use the function **ЕСЛИ** for that. Use 0 and 1 for positive and negative.

The function is used as **=ЕСЛИ(condition, value if true, value if false)**.

**3) Indicators**

Using the function **СЧЁТЕСЛИМН**, count the true positives (sick patient and positive test), false positives (healthy patient and positive test), false negatives (sick patient and negative test) and true negatives (sick patient and negative test).

Change the limit in cell **J2** to find the best result.