Lab 4:

Task 1:
Write a program that will take from the user an amount of points he/she obtained from the exam (exam is scored from 0 to 100 points). If the user obtained more than 50 points, display the information that the exam is passed. Otherwise, the exam is failed. The program should work until the user enter the correct amount of points.
Hint: use `while-else` loop.

Task 2:
Write a program that reads numbers given by user and ends when one of the following occurs:

- the sum of these numbers exceeds 100,
- the amount of a given negative numbers exceeds 10,
- two consecutive given numbers have the same value.

Task 3:
Write a program that will use Erik Widmark's equation and calculate the concentration of alcohol in the blood of a consumer of spirits. The program should ask about the amount of pure alcohol the user drunk, the weight of the user in kilograms and the gender of the user. Display the calculated alcohol concentration in per mille on the screen. Check the obtained results giving the test data prepared by yourself.

$$P = \frac{A}{K * W}$$

where:
P - content of blood alcohol in per mille,
A - the amount of pure alcohol drunk in grams (it should be remembered that the alcohol content in beverages is usually given in percentage by volume, therefore 500 ml of vodka with 40% alcohol content contains 200 ml of alcohol, i.e. 160 g of alcohol),
K - coefficient of (approximately) 0.7 for men and 0.6 for women (related to body water),
W - body weight in kilograms.

Task 4:
German mathematician Carl Friedrich Gauss developed an algorithm for calculating the date of Easter, described below. Write a program that asks the user for a year between 1900 and 2099, and then gives the date of Easter that year.
The algorithm is as follows:

1. divide the number of the year by 19 and find the rest as a
2. divide the number of the year by 4 and find the rest as b

3. divide the number of the year by 7 and find the rest as `c`
4. multiply the rest `a` by 19, add 24 to the product, divide the sum by 30 and find the rest as `d`
5. divide the sum of `(2b + 4c + 6d + 5)` by 7 and find the rest as `e`
6. check if `d + e <10`; if so then Easter is `(d + e + 22) of March`, if not then `(d + e - 9) of April`.

Test your code using the following data: 1999 (4.IV), 2013 (31.III), 2008 (23.III), 2022 (17.IV), also check the current and the next year.