

## **1. Simple operations and calculations. Primitive data types.**

**1.01.** Write a program which initializes 2 variables and then swaps their values.

**1.02.** Write a program that calculates the length of the medians of a triangle, which is formed by the medians of a given triangle with sides  $a$ ,  $b$ ,  $c$ . Assume that such triangle with sides  $a$ ,  $b$ ,  $c$  exist.

**1.03.** Write a program which asks the user for his age and then prints the number of seconds, days, weeks, months he has lived on the Earth.

**1.04.** Write a program which asks the user for the lengths of sides of a triangle and prints the area of the triangle.

**1.05.** Write a program which asks the user for three numbers  $a$ ,  $d$  and  $n$  and prints the sum of the first  $n$  numbers of arithmetic progression with starting number  $a$  and difference  $d$ .

**1.06.** Yana decides to make a party and goes to the alcohol market to buy beer, wine, brandy and whiskey. On the console she inputs the price of the whiskey (lv./liter), and the quantities of the products, which she has to buy (liters). Write a program that calculates how much money she needs to pay for the bill, knowing that:

- the price of the brandy is half-lower than this of the whiskey;

- the price of the wine is with 40% cheaper than this of the brandy;

- the price of the beer is with 80% cheaper than this of the brandy;

Print a single number on the console: the money that Yana needs to pay for the bill, formatted to the second digit after the floating point.