

1. Write a simple program that asks to enter two numbers and prints out their sum and difference. Write comments to describe your code.
2. Write a program that asks the user to input length and breadth of a rectangle. Then the program should calculate to area and perimeter of the rectangle and print them out.  $Area = l \times b$ ;  $Perimeter = 2(l + b)$ ;
3. Write a simple program that asks the user to enter their name and prints out “Hello *name*, have a nice day!” where *name* should be the name that the user entered.
4. Write a program that computes the value of the algebraic expression given below. The program should ask the user to input the values of x and y. Write comments to describe your code.

$$x^3 + 3x^2y + 3xy^2 + y^3$$

# Home-work

1. Write a program that asks the user to enter the coefficients  $a$ ,  $b$  and  $c$  of a quadratic equation  $ax^2 + bx + c = 0$ . The program should find out the values of  $x$  which are the solutions to the quadratic equation using the formula:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$