

## Basic of Informatics – Lab. 8.

1. Declare 10-elements array and ,with use of for – loop, fill in the array elements with squares of natural numbers.
2. Using a while-loop, write elements of an even-numbered array (including zero).
3. Declare a two-dimensional array and initialize it with any values (eg a matrix of 2 rows - 5 columns) and then write a program in which the user will specify which element of the array is to be displayed on the screen: giving the array index number

Remember to check if the given element exists!

4. Write a program that will allow you to enter your name, surname (declare char-arrays), age and display this data on the screen.
5. Using the switch statement, write a program that allows the user to enter two numbers and select a mathematical action on these numbers (addition, subtraction, multiplication, division)
6. Write a program in which: you define globally 2 variables (eg x, y) - initialized with values, then with braces you will create a block statement in which you declare and initiate the variable x with a different value than in the global range. The program should list the values of variables x and y - in the block statement and after using block statement. *//use of global and local variables*
7. Using the for loop, write the multiplication table of the first 10 natural numbers (in rows and columns) on the screen. Perform the task using arrays and using the printf function.
8. Based on the tasks from the previous classes define your own function for calculating the delta value. Modify the program using the written function to calculate the square root functions. The arguments of the "delta" function should be the coefficients a, b, c. Place your delta function:
  - a) in the program, a square function: `int delta(float a, float b, float c).`
  - b) in a separate header file (library function), eg. `delta.h`