

# Introduction to programming

## Practice 5

# Assignment 1

Write a function that takes three pointers to three variables e.g.: a, b and c and rotates their values according to following rule:

a -> b  
b -> c  
c -> a

If any of the pointers is a null pointer, the function should stop executing and return -1.

If two of the pointers point to the same address, the function should stop executing and return -2.

If the values were successfully rotated, the function should return 0.

Test the function in main program.

# Assignment 2

Write a function of the following prototype:

```
void powers(double x, double *x4, double *x8, double *x15);
```

The function should calculate  $x^4$ ,  $x^8$  i  $x^{15}$ . Test the function in main program.

# Assignment 3

Write a function that returns  $i$ -th digit of a binary representation of a number  $n$  (both values are to be passed as arguments).

Test the function in main program by accepting entries from a user until a zero is entered, and writing third and fourth digit of each entry.