**Exercises**

Instructions

* write your algorithm on paper
* detail each and every step
* indicates the types of used variables

**I - print numbers**

Write an algorithms which receives an integers *n* and prints:

* 1)the numbers from 1 to *n*
* 2)the numbers from 1 to *n* in descending order
* 3)the numbers from *-n* to *n*
* 4)the odd numbers from 1 to *n*

start

var n=0

1) for (i=0,i=<n;i++)

print i;

2) for (i=n;i=0;i--)

print i;

3) for (i=-n;i=<n;i++)

print i;

4) for (i=1;i=<n;i++)

if (i modulo2 = 1)

print i;

**II - print random number of integers**

Write an algorithm which receives a random integer and prints from 0 to it.

START

Var a = random integer

for (i=0,i=<a;i++)

END

**III - throw dices**

Write an algorithm which throws a dice a given number of time and count the number of time a certain number is received.

START

LIRE : ‘enter the number of times dice will be thrown ‘

Var a = number ( type = not a string but a number)

Var b = times the certain number is received

Function (count) : b

ECRIRE : b

END

**IV - even numbers**

Write an algorithm which prints all the **even numbers** from 0 to a given number.

for (i=0,i=a;i)

i = a given number

**V - perfect number**

Write an algorithm which verify if a given positive integer is a perfect number, meaning equal to the sum of his divisors (except himself).