# NORG2

## Sample programs

## Average:

Computes the (integer) average of integers that are input:

You are asked to input an integer. Input a number and type enter. Then input the next number. End the input sequence by typing end + Enter. Then the average of the inputs is output.

#### BinToDec:

You are asked to input a binary number (+ Enter). Outputs the number converted to decimal, if number >= 0.

#### **Bottles:**

The famous 99 bottles of beer program.

#### ConsoleToFile:

Reads a series of strings input via the console and writes it to the output file. Terminates when the input string is empty.

#### DecToBin:

You are asked to input a number (+ Enter). Outputs the number converted to binary, if number >= 0.

## **DecToRoman:**

You are asked to input a number (+ Enter). Outputs the number converted to roman, if number > 0 and < 5000.

### **Factorial:**

Input an integer and type enter. The factorial is computed and output.

## Fibonacci:

Input an integer <n> and type enter. Outputs the first <n> fibonacci numbers.

#### FileToConsole:

Reads the lines from the standard input file associated with the program and outputs the contents to the console, until EOF is reached.

#### FizzBuzz:

The (esoteric) Fizzbuzz program. You are asked to input an integer number (+ Enter). Output is FizzBuzz output up to and including this number.

#### Function:

list the values of the function  $ax^2+bx+c$  for x=0..10 after input of a,b,c at the console.

#### Gcd:

input two integer values and compute the greatest common divisor using the euclidean algorithm.

#### Hello:

Outputs Hello World.

#### Lower:

You are asked to input a string (+ Enter). Outputs the string in lower case. Note that this program doesn't actually save the converted string but simply outputs one (converted) char after the other.

## Pascal:

compute Pascal's triangle from 1 to 10.

## Prime:

Input an integer number > 0. Output is 'prime' if the number is a prime, 'not prime' otherwise.

## Repeat:

Your are asked to input a string and the repetition factor (n). Output is the string repeated n times (if n>0).

#### Reverse:

You are asked to input a string (+ Enter). Reverses the string and outputs the result.

#### RomanToDec:

You are asked to input a roman number (+ Enter). Outputs the number converted to decimal, if number > 0.

#### Sieve

Determine the prime numbers between 2 and 100 with the sieve of Eratosthenes method.

## Slength:

You are asked to input a string (+ Enter). Outputs the string length.

## Substring:

Your are asked to input a string, the starting position of the substring (where the first Position is 0) and the length of the substring. Output is the substring.

#### Sum:

Computes the sum of integers that are input:

You are asked to input an integer. Input a number and type enter. Then input the next number. End the input sequence by typing end + Enter. Then the sum of the inputs is output.

## Upper:

You are asked to input a string (+ Enter). Outputs the string in upper case. Note that this program doesn't actually save the converted string but simply outputs one (converted) char after the other.