Exercise

Given two integers A and B (A ≤ B). Print all numbers from A to B inclusively.

Given two integers A and B. Print all numbers from A to B inclusively, in ascending order, if A < B, or in descending order, if A ≥ B

10 numbers are given in the input. Read them and print their sum. Use as few variables as you can.

Sum of N numbers: N numbers are given in the input. Read them and print their sum.

The first line of input contains the integer N, which is the number of integers to follow. Each of the next N lines contains one integer. Print the sum of these N integers.

Sum of Cubes: For the given integer N calculate the following sum:

$$1^3+2^3+\ldots+N^3$$

Factorial: In mathematics, the factorial of an integer n, denoted by $n!$ is the following product:

$$n!=1\times2\times\ldots\times n$$

For the given integer n calculate the value $n!$

Number of zeros: Given N numbers: the first number in the input is N, after that N integers are given. Count the number of zeros among the given integers and print it.

You need to count the number of numbers that are equal to zero, not the number of zero digits.

```
Input: 5 0 700 0 200 2          Output: 2

Input: 6 0 0 0 0 0 0            Output: 6
```

The length of Sequence: Given a sequence of non-negative integers, where each number is written in a separate line. Determine the length of the sequence, where the sequence ends when the integer is equal to 0. Print the length of the sequence (not counting the integer 0). The numbers following the number 0 should be omitted.

```
Input: 1 2 3 4 5 6 7 0 1 2 3        Output:7
```

The maximum of the Sequence: A sequence consists of integer numbers and ends with the number 0. Determine the largest element of the sequence.

The index of the maximum of a sequence: A sequence consists of integer numbers and ends with the number 0. Determine the index of the largest element of the sequence. If the highest element is not unique, print the index of the first of them.

```
Input:1 2 3 2 1 0               Output:3
```

The number of even elements of the sequence: Determine the number of even elements in the sequence ending with the number 0.

The number of elements that are greater than the previous one: A sequence consists of integer numbers and ends with the number 0. Determine how many elements of this sequence are greater than their neighbours above.

```
Input: 1 5 2 4 3 0              Output: 2
```