

## Solving simple problems with functions in Python



### Objectives

*Using Python to solve simple problems*

- Implement simple programs using Python
- Solve simple problems using read/write instructions, conditional, loops
- Implement functions



### Requirements

Solve the following problems using procedural programming. Identify features and write functions (with documentation) for reading the data, processing the data and displaying the result.

- 1) Return the number of even integers in a list.
- 2) Write a function to read a list of integers from the user and return it.
- 3) Compute the sum of  $n$  numbers given as a list. Modify the function to exclude number 12 from the sum.
- 4) Find the minimum and maximum of a list.
- 5) Transform an array into a set.
- 6) Given two integers, verify if they are “friends”. Two numbers are friends if each number equals the sum of divisors of the other number. Example: 220 and 284 are friends because  $1 + 2 + 4 + 5 + 10 + 11 + 20 + 22 + 44 + 55 + 110 = 284$  and  $1 + 2 + 4 + 71 + 142 = 220$
- 7) Write a function that computes and returns the sequence 1, 2, 2, 3, 3, 3, 4, 4, 4, 4, 5, 5, 5, 5, 5, .... given its length as an argument.