Python - Practical Work 1
Variables, Conditional Structures, Loops and Arrays

Exercice 1

Write a Python program which concatenates 2 strings and prints the resulting unified string with the EOF character at the end of it. The 2 input strings are asked by the program.

Tip. To ask a value to the user, you may use the following piece of code.

```
1 testVar = input("Ask user for something.")
```

Exercice 2

Write a Python program which asks for a number to the user, denoted by X, and output wether X is odd or even. Checking if the user really enters a number is out of the scope of this exercice. Consequently, you will assume it is always valid.

Exercice 3

Write a Python program which:

1. creates an array and initialize it with the strings "FR", "UK", "DE" and "NL";
2. prints the size of this array;
3. prints the content of this arrays using comma as the element separator.

Exercice 4

Write a Python program which:

1. asks for the user to enter 3 numbers and stores them in a array;
2. prints the content of the array using the character '+' as the element separator;
3. computes and displays the sum;
4. outputs the number of non-null elements.

Exercice 5

Write a calculator with the following basic features:

1. the programs asks for 2 numbers;
2. it then ask for the operator (a member of the ensemble $\{+, -, *, /, \%\}$);
3. outputs the results accordingly;
4. asks for a new operation (possible answers are *yes* and *no*);
5. acts accordingly.

Exercice 6

Write a game with the following rules:

1. the programs randomly generates a number between 0 and 100;
2. the player has 10 tries to guess this number;
3. at each round, the player enters a number and the systems returns (1) *more* if the number to guess is greater than the number just entered, (2) *less* if the number to guess is lower than the number just entered or (3) *You win!* if the user has guessed the number;
4. If the users has not guessed the number after the 10^{th} round, the system return *You loose*.