

# CODING EXERCISES

## DISPLAYING TEXT ON THE SCREEN

**Remember:** You can use the `print()` function to display content.

**Exercise 1:** Make Python display a welcome message.

## SIMPLE CALCULATION

**Remember:** You can use all operators (+ - \* /) just as you would in mathematics.

**Exercise 2:** Calculate the population density of Belgium (please look up the area and the population) in people per square kilometer.

## DECLARING VARIABLES

**Remember:** The variable's name belongs to the left of the equal sign, the value to the right of the equal sign. You can assign a text value by writing the value in "quotes". You can assign a number by just typing the number.

A variable that takes a whole number as a value is called an integer: `myVar = 15`

A variable that takes any characters as a value is called a string: `myVar = "Hello!"`

**Exercise 3:** Declare an integer and assign it the value 1. Declare another integer and assign it the value 2. Add both variables and display the result.

**Exercise 4:** Declare a string and assign it the value 1. Declare another string and assign it the value 2. Add both variables and display the result. Explain why the result of exercise 3 is different from this result.

**Remember:** You can either print a string or an integer, not a mixture. Use `int(value)` or `str(value)` to cast values to a specific type.

**Exercise 5:** Declare a string and assign the value "My age: " and declare an integer and assign the number that corresponds to your age. Now print both variables in the same print function.

**Exercise 6:** Modify the program you wrote in exercise 2. Assign all values to variables before doing any calculations. Then do the calculation with the variables.

## TAKING TEXT INPUT

**Remember:** Remember that for the program the value of `input()` is always a string, even when the user just types in a number. Casting does the magic here. An example for casting a string to an integer:

```
myVariable = int("15")
```

An example for displaying an input prompt and assigning the input to a variable:

```
myVariable = input("Please enter your name: ")
```

**Exercise 7:** Modify the program you wrote in exercise 2. Allow a text input for the country and number inputs for area and population. Show the population density in a result, along with the given parameters as a sentence.

## CONDITIONALS:

**Remember:** There are 3 important keywords for conditions: `if`, `elif`, `else`. An example for using an `if` condition:

```
x = 5
```

```
if x == 5:
```

```
    print("The value of x is equals 5")
```

**Exercise 10:** Create a passcode request. Only display a secret message if the user has entered the correct passcode. Otherwise display "Access denied"