

Extra exercises 3: Functions

Exercise 1: Multiples of 2 and 3

Write a function that prints whether the parameter it receives is a multiple of 2 and/or 3. Note: if the parameter is a multiple of 2 and 3, both messages should be printed. If the number is not a multiple of 2, nor of 3, a corresponding message is also printed.

Exercise 2: Converting time

Times can be noted in two formats: 12h or 24h notations. Define two variables in the main program, containing the hour and minutes, in 24h format. Write a function `time_conv()` with the necessary parameter(s) that converts this 24h notation to a 12h notation and prints this notation in the Shell. Don't forget to call your function in the main.

An example. With variables `hour = 14` and `minutes = 15`, the function will print `"2:15pm"`. But of course if `hour = 2` and `minutes = 15`, the notation remains unchanged, then you get `"2:15am"`.

Exercise 3: Triangles

By printing symbols in a certain way, you can create a pattern. For example, you can print triangles. Below is an example of two right triangles and a pyramid with five layers each.

a) x
xx
xxx
xxxx
xxxxx

b) x
xx
xxx
xxxx
xxxxx

c) x
x x
x x x
x x x x
x x x x x

Later we'll see how this can be done efficiently in a few lines of code! For now we will construct a part of the solution, namely printing one layer of a certain type of triangle. For now, we assume that the triangle has 5 layers.

Write a `layer_triangle()` function that, depending on the triangle type option, prints the number of crosses with spaces added for a specific layer in the Shell. So the function will have to accept two parameters: the number of the layer and the option to choose (`"a"`, `"b"` or `"c"`). Don't forget to call the function in the main.