Introduction to Python II (Exercises 01)

1) Global variables

Define global variable (variable outside of any function) called **balance**. Initialize balance to 0.

Define 2 functions inside your script as follows:

a) bal_inc(increment)
This function receives an integer argument and increments the value of the global variable balance with the amount received.

b) bal_dec(decrement)
This function receives an integer argument and decrements the value of the global variable balance by the amount received.

. Then execute this instructions:

```
increment = 5
decrement = 3

for I in range(3):
    bal_inc(increment)
for I in range(2):
    bal_dec(decrement)
print("Final balance:", balance)
```

2) Multi arguments functions (non-keyworded)

2.1 Write a function called multiprodavg() that receives integers (any number of integers). The function multiplies all the integers and then divides the result by the number of integers passed (number of arguments). Return the result.

Test your program by calling the function multiprodavg() with the following arguments:

1, 2, 3, 4 (result: 6)
88, 77, 66 (result: 149072.0)
-1,1,-1,1 (result: 0.25)

2.2 Collect (prompt) for 5 integers, add them to a list. Then use the integers in the list to call the function. Attention, you will need to unpack the list during the function call.

3) Multi arguments functions (non-keyworded)

Write a function that receives several lists of 3 positive integers each (ex. [2,4,6] and [0,2,2])

The function finds the largest integer from all the lists. (Hint, use the max function with a list, as in max(mylist). Try the function max() to explore how it works.

The function should return the largest integer and the corresponding list. Print the returned values in the main section of your script. Notice that the function returns two values, make sure you assign two values when you call the function. (i.e. a, b = myfunction(…))

4) Write a function call **navigator.** The function can receive a variable number of keyworded parameters (i.e. **kwargs)

The parameters are:

up, right, down, and left. (ex. **navigator(up=6, right =1, down = 2, left = 0)**)

Assuming these are movements in a cartesian plane, with origin 0,0. Then the function will calculate the final position after all movements.