Introduction to Python I (Exercises 04) Functions

1) Write a function called message that prints the following text:

   "This is text printed inside a function!"

   (Notice that there are no params and no returns)

2) Write a function that receives a float number indicating the radius of a circle.

   The function should calculate the area of the circle according to the following equation:

   area = PI x radius^2 (you can approximate Pi to 3.1415)

   Return the area to the calling section of the program. Test it.

3) Write a function "rectangle" that receives two integer numbers indicating Height and Width. Inside the function filter the values of height to be between 3 and 10 (if it is not one of these values, then make the height equal to 3. Filter the width value to be between 3 and 10 (if it is not one of these values, then make the width equal to 3).

   The function should then print a rectangle with the character *

4) Write a function that receives 3 parameters. The first parameter is a positional parameter (it is mandatory to pass the parameter). The other two parameters contain default values (The default values are 1 and 10 respectively).

   As in:
```
def myfunction(myvalue, defvalue1 = 1, defvalue2=10):
    totalvalue = (myvalue * defvalue2) + 1
    return totalvalue
```

   Test you function for each of the following cases:

   4.1
```
myfunction(1)
myfunction(10)
myfunction(1,1)
myfunction(1,1,5)
myfunction(10,defvalue2 = 5, defvalue1=10)
myfunction(10,defvalue2 = 5)
```

   What happens in these cases?

```
myfunction(defvalue1 = 2)
myfunction(defvalue1 = 2, defvalue2 = 10)
```

myfunction()
myfunction(1, defvalue3 = 5)

5) Using Turtle Graphics, write the following functions:

. drawline(x1,y1,x2,y2,color='black')
. drawsquare (height, width, color='black',fill='white', x,y)
.drawtriangle(height, width, color='black',fill='white', x,y)
.drawcircle(radius, color='black', fill='white')

Test your functions by making a drawing similar to the following: