Introduction to Python I (Exercises 04) Functions

1) 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.

```
def circle_area(radius):
    area = 3.1415 * radius**2
    return area

#call the function message and use the returned value in a print
# statement

radius = 10.5
print("The area of the circle of radius: " , radius, "is: ", circle_area(radius))
```

2) 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:

myfunction(1)	11
myfunction(10)	101
myfunction(1,1)	11
myfunction(1,1,5)	6
myfunction(10, defvalue2 = 5, defvalue1 = 10)	51
myfunction(10, defvalue2 = 5)	51

   The next 3 variations, give the following exception:

   builtins.TypeError: myfunction() missing 1 required positional argument: 'myvalue'

The last variation, gives this exception:

   builtins.TypeError: myfunction() got an unexpected keyword argument 'defvalue3'