

Computer Programming

Python #5 – Functions

Background:

You are to make functions out of code that you previously wrote.

Assignment:

1. In your Computer Programming folder, create a folder titled *first_last_python_5*. Start IDLE. Create a new file. Save it in your *first_last_python_5* folder as *functions.py*.
2. At the top of the file, use the code from *python_3* to create a function as follows:

```
def calculate_tax(marital_status, income)
```

This function should return the calculated tax.

3. Under that function use the code from *python_4* to create a function as follows:

```
def can_be_mailed(dim1, dim2, dim3, weight)
```

This function should return True if the package is acceptable, False if not.

4. Now, copy this code and paste it underneath the functions. When you copy/paste from a pdf file, the indentation is lost, so you'll need to indent the *print* statements in the *if-else* blocks before running.

```
print()
print("Tax is ${0:,.2f}".format(calculate_tax("S",27050)))
print("Tax is ${0:,.2f}".format(calculate_tax("S",65550)))
print("Tax is ${0:,.2f}".format(calculate_tax("S",136750)))
print("Tax is ${0:,.2f}".format(calculate_tax("S",297350)))
print("Tax is ${0:,.2f}".format(calculate_tax("S",300500)))
print()
print("Tax is ${0:,.2f}".format(calculate_tax("M",45200)))
print("Tax is ${0:,.2f}".format(calculate_tax("M",109250)))
print("Tax is ${0:,.2f}".format(calculate_tax("M",166500)))
print("Tax is ${0:,.2f}".format(calculate_tax("M",297350)))
print("Tax is ${0:,.2f}".format(calculate_tax("M",300500)))
print()
if can_be_mailed(50, 10, 15, 70):
    print("OK to mail")
else:
    print("Not OK to mail")
if can_be_mailed(28.2, 52.7, 29.38, 30.5):
    print("OK to mail")
else:
    print("Not OK to mail")
if can_be_mailed(35.8, 36.9, 50.2, 71.5):
    print("OK to mail")
else:
    print("Not OK to mail")
if can_be_mailed(15.4, 17.8, 5.2, 25.6):
    print("OK to mail")
else:
    print("Not OK to mail")
```

5. Create a text document called *output.txt* in your *first_last_python_5* folder. Copy the output from the Python shell, paste it in your *output.txt* file, and save the file.

Before you turn this assignment in, make sure that your *first_last_python_5* folder has 2 files:

1. *output.txt*
2. *functions.py*

Zip your *first_last_python_5* folder and turn it in in the usual manner.