

Python Coding Review Set

Look at these code blocks. For each one draw a **triangle** next to the *first line of code that is executed* and also predict the output.

Code Block 1

```
Python
x = 3
y = 4
print(x+y)

#output:
```

Code Block 2

```
Python
def generateNums():
    global num1, num2

    num1 = 3
    num2 = 4

def displayResult():
    print(num1+num2)

generateNums()
displayResult()

#output:
```

Code Block 3

```
Python
def getNum1():
    return 3

def getNum2():
    return 4

def addnums(x,y):
    print(x+y)

def main():
    num1 = getNum1()
    num2 = getNum2()
    addNums(num1, num2)

main()

#output:
```

Code Block 4

```
Python
def getNum(odd):
    if odd == false:
        return 4
    else:
        return 3

def addNums(x,y):
    print(f"{x}+{y} = {x+y}")

def main():
    number1 = getNum(true)
    number2 = getNum(false)
    addNums(number1, number2)

main()

#output
```

A computer program is being written. It will get some help from some functions.

The program will evaluate the **Body Mass Index** (BMI) of a human being.

*Note: $BMI = weightInKgs / (HeightInMeters * HeightInMeters)$*

Here is the program:

Python

```
def main():
    weight = getWeight()
    height = getHeight()
    bmi = getBMI(weight, height)
    displayBMI(bmi)
    evaluateBMI(bmi)

main()
```

5 functions need to be designed:

getWeight(): this function asks the user to enter the weight. It returns the weight.

getHeight(): this function asks the user to enter the height. It returns the height

getBMI(): this function processes two parameters and calculates the BMI. It returns the BMI value.

displayBMI(): this function processes one parameter. It displays the value stored in the parameter like this:

"The BMI is 20.6"

evaluateBMI(): this function processes one parameter.

If the parameter value is **more than 30**, a message *"Urgent: Seek Medical Advice"* is displayed

elif the parameter value is **more than 18**, a message *"You're in good shape"* is displayed

else a message *"Check up with your doctor"*

Complete each function:

Python

```
def getWeight():  
    w = int(input("Enter the weight in kgs: "))  
  
    return
```

Python

```
def getHeight():
```

Python

```
def getBMI(w,h):  
    bmi = w/(h*h)
```

Python

```
def displayBMI(bmiVal):
```

Python