

Python Revision Homework  
2020-08

1. Without using the Python interpreter, what would you expect `print(14%10)` to return?
2. Look at the Python code below:

```
x = 3
y = 5
x = y
print(x)
```

- i. Without using a Python interpreter, what would you expect to be printed on screen?
  - ii. What are x and y known as in programming?

3. Look at the following code. When the program is run, the sum of the numbers is not printed out.

```
num1 = input('What is your first number? ')
num2 = input('What is your second number? ')
sum = num1+num2
print('The sum of these numbers is', sum)
```

Why is this?

4. Look at the following code. Without running it in an interpreter, what would you expect to be printed on screen?

```
for x in range(3):
    print('I love Python!')
print('I love Computing')
```

5. Look at the following code where a function is defined.

```
def area(l,b):
    return(l*b)

area(2,6)
```

Using the code above as an example, give an example or short explanation of the following:

- i. Function Call
  - ii. Parameters
  - iii. Function Name
  - iv. Function Declaration
6. Look at this code below, which uses both local and global variables:

```
multiplyNumber = 4

def multiply():
    fixedNumber = 6
    return fixedNumber * multiplyNumber

print(multiply())
```

- i. Which variable is a global variable, and which is a local variable?
- ii. What is the difference between a local and a global variable?

7. A program takes in a users first and second names.

```
firstName = input("Please enter your first name")
secondName = input("Please enter your second name")
```

This program then creates a username, made of the first three letters of the users firstName, and the first two letters of the users secondName, ie John Bloggs is given the username JohBl. Write a line of code that would slice these names and create this new username string.

8. Look at the code below

```
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
b = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13]
c = []
for x in a:
    if x not in b:
        c.append(x)
```

What can we expect the variable c to look like after this program has been run?

9. Write a program that takes a list of numbers (for example, `a = [1, 5, 7, 9, 10]`) and makes a new list of only the first and last elements of the given list (`newList = [1, 10]`)

Note this should not just work on the given list - any list of any length could be given as input.

For practice, write this code inside a function. This code should only take a few lines and you should be able to write it on paper.