Home Work II (Day 2)

Arithmetic Operators and Variables

1. Calculate the multiplication and sum of two numbers?

2. Create a string made of the first, middle and last character?

Expected Output: Quality Thought

3. Use Python code to print out the following:

One half of 100 is 50. Use a variable to print out the number 50

4. Type these numbers after the equals sign for your myTotal variable:

myTotal = 4 + 2 \* 8 - 6

Can you see why the answer you get when you run your code is 14?

Output:

MyTotal=4+2\*8-6

To evolvate this expression, we need to follow the order of expression operations PEMDAS:

Multiply 2 and 8: 2\*8=16

Add 4 and 16: 4+16 = 20

Subtract 6 from 20: 20-6 = 14

So the final value of “MyTotal “ is indeed 14!

5. If you are dividing, you can use two forward slashes to do floor division:

myTotal = 7 // 5

This will get you the answer of 1 rather than the 1.4 we had before.

Output:

7//5 equals 1 because // performs floor division,rounding down to the nearest Whole number.

6. You can tell Python what you mean with round brackets, parentheses. Add

two round brackets to your code:

myTotal = (8 + 2) \* 10

Output: Round brackets and parentheses are the same thing(),used for grouping and clarifying expression.

myTotal=(8+2)\*10

Following the order of expression (PEMDAS),we evalvate the expression inside the praentheses first:

8+2=10

10\*10=100

So,my total=100!

7. For example, change your myTotal line to this:

myTotal = 8 + 2 \* 10

MyTotal = 8+2\*10

Following the order of operations(PEMDAS),multiplication happens before addition:

2\*10=20

8+20=28

So myTotal =28!

8. Likewise, if we had this:

myTotal = 8 + 10 / 2

But if we add round brackets:

myTotal = (8 + 10) / 2

Output:

We need to follow the order of operations(BODMAS) which stands for parentheses/Brackets,Exponents,MULtiplication and division,addition and subtraction.

myTotal=8+10/2

Division comes before addition in the order of operations.

Addition:8+10=18

Divide:18/2=9.

My total=(8+10)/2

This expression inside the parentheses is evalvated ft.

8+10=18

Divide:18/2=9

The value of my total changes from 13 to 9 when we add round brackets around operation,changing the order of operations.

9. So, Python sees that there is 16 stored in the numberOne variable and 4

stored in the numberTwo variable. It adds these up and stores the result in

the answer variable.

You can also mix the two, variables and hard-code numbers:

answer = numberOne + numberTwo + 20

answer = 10 \* numberOne + (numberTwo + 20)

answer = numberOne + 20 + numberTwo – 10

10. Creating a program of strings with concatenation:

FirstName = “Quality”

SeconName = “Thought”

Expected Output:

Full Name is: Quality Though

Output:

FirstName="Quality"  
SecondName='Thoughts'  
FullName=(FirstName+" "+SecondName)  
print(FullName)