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COURSE: CCC634 (A Gentle Intro to Python)

1

''' Vigyan was asked to print the following using the print function. Help him in writing a python program for the same. (The Golden Ratio has the same letters as The God Relation.) '''

```
print("The Golden Ratio has the same letters as The God Relation.")
```

```
→ The Golden Ratio has the same letters as The God Relation.
```

2

''' A friend told Dev that he can use the Python prompt to do some basic arithmetic operations without using the input and output functions. Explain how he will perform the operation $50 + 40 - 35$ in python. '''

```
print(50+40-35)
```

```
→ 55
```

3

'''

The id() can be used to get the memory address of a variable.

Create a variable named num1 initialized with the value 13.
 Create another variable named num2 and assign to it the value of num1.
 Print whether the memory addresses (IDs) of num1 and num2 are the same.
 Create two more variables named num3 and num4. Initialize num3 with the value 13 again, and num4 with the value 12.
 Create another two variables num5 and num6 and assign the string value "Code" to both variables using chained assignment.
 Print whether the memory addresses (IDs) of num3 and num4 are the same.
 Print whether the memory addresses (IDs) of num5 and num6 are the same.
 '''

```
num1 = 13
num2 = num1
print("id(num1)=" , id(num1))
print("id(num2)=" , id(num2))
if (id(num1)==id(num2)):
    print("They are same")
else:
    print("They are different")
```

```
print("\n")
```

```
num3 = 13
num4 = 12
print("id(num3)=" , id(num3))
print("id(num4)=" , id(num4))
if (id(num3)==id(num4)):
    print("They are same")
else:
    print("They are different")
```

```
print("\n")
```

```
num5,num6= "Code","Code"
print("id(num5)=" , id(num5))
print("id(num6)=" , id(num6))
if (id(num5)==id(num6)):
    print("They are same")
else:
    print("They are different")
```

```
→ id(num1)= 10751240
   id(num2)= 10751240
   They are same
```

```
id(num3)= 10751240
id(num4)= 10751208
```

They are different

```
id(num5)= 136301000513136
id(num6)= 136301000513136
They are same
```

4

'''

Kushal is new to python programming, and he was experimenting with the python multiple assignment features. He wrote a program that would take in and assign 3 variables to 3 values in only 1 line of code. But while printing the values, he made an error. Can you find and fix the error?

Code:

```
a,b,c = 2,8,9
print (a,b,c)
c,b,a = a,b,c
print (a,b,c)
'''
```

```
a,b,c = 2,8,9
print (a,b,c)
c,b,a = a,b,c
print (a,b,c)
```

```
↩ 2 8 9
   9 8 2
```

5

'''

Correct the following code to remove syntax errors.

Code:

```
a,b,c = 10,20,30
p,q,r = c-5,a+3,b-4
print ('a,b,c:', a,b,c, end='')
print('p,q,r:',p,q,r)
'''
```

```
a,b,c = 10,20,30
p,q,r = c-5,a+3,b-4
print('a,b,c:', a,b,c, end='\n')
print('p,q,r:',p,q,r)
```

```
↩ a,b,c: 10 20 30
   p,q,r: 25 13 16
```

6

'''

Kshitij runs a car dealership, and he wanted to display the cost of 4 cars which he had sold in the past week, so he wrote the code.

```
x = 1200000
y = 1000000
a = 300000
b = 800000
print("xyab");
```

But it was showing "xyab" instead of the values stored in those variables. Your task is to identify the problem with this code and fix it to print the prices of the cars (each in a new line).

```
x = 1200000
y = 1000000
a = 300000
b = 800000
print("x=",x)
print("y=",y)
print("a=",a)
print("b=",b)
```

```
↩ x= 1200000
   y= 1000000
   a= 300000
   b= 800000
```

7

'''

Fix the error in the below code.
code:

```
age =21:
Print ("You can vote")
'''
```

```
age=21
print("You can vote")
```

```
# Alternate code using if-else
```

```
age=21
if (age>=18):
    print("You can vote")
else:
    print("You cannot vote")
```

```
↩ You can vote
  You can vote
```

```
# 8
```

```
'''
Indentation refers to the spaces at the beginning of a code line. Whereas in other programming
languages the indentation in code is for readability only, the indentation in Python is very
important. When the following code is run, it gives an "Indentation Error" which is a compile-
time error. Fix the code below and produce the intended output
Code:
```

```
i = 4
    j = 3
if (i>j):
print(i)
'''
```

```
i = 4
j = 3
if (i>j):
    print(i)
```

```
↩ 4
```

```
# 9
```

```
'''
This program does not throw an error when it is run, rather it throws an error during runtime.
These kinds of errors are known as runtime errors. If we give x=1, and y=2, the program runs
fine, but when we give x=2 and y=1, the program will throw an error.
Correct this code so that it is error-free.
Code:
```

```
x = input()
y = input()
if x > y:
    output("x is greater than y")
else:
    print("y is greater than x")
'''
```

```
x = input()
y = input()
if x > y:
    print("x is greater than y")
else:
    print("y is greater than x")
```

```
↩ 2
  1
  x is greater than y
```

```
# 10
```

```
'''
Amaan and Ayaan were given x and y apples respectively and then they were asked to write
a python program that would input x and y and display how many apples each person had.
You must write such a program.
'''
```

```
x=int(input("Enter the number of apples Amaan has: "))
y=int(input("Enter the number of apples Ayaan has: "))
print("The number of apples Amaan has is x =" ,x)
print("The number of apples Ayaan has is y =" ,y)
```

```
↩ Enter the number of apples Amaan has: 3
  Enter the number of apples Ayaan has: 4
```

```
The number of apples Amaan has is x = 3  
The number of apples Ayaan has is y = 4
```