edX

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Exercise 5

Finger Exercises due Aug 5, 2020 20:30 -03   *Completo*

Exercise 5

5/5 points (graded)
ESTIMATED TIME TO COMPLETE: 7 minutes

Below are some short Python programs. For each program, answer the associated question.

Try to answer the questions without running the code. Check your answers, then run the code for the ones you get wrong.

This question is going to ask you what some simple loops print out. If you're asked what code like this prints:

```
num = 5
if num > 2:
    print(num)
    num -= 1
print(num)
```

write what it prints out, separating what appears on a new line by a comma and a space. So the answer for the above code would be:

```
5, 4
```

If a given loop will not terminate, write the phrase 'infinite loop' in the box.

Note: Using the 'range' built-in function

The standard way of using the `range` function is to give it a number to stop at, and `range` will give a sequence of values that start at 0 and go through the stop value minus 1. For example, calling `range(stop)` yields the following:

```
>>> range(5)
range(0,5)
```

which is the sequence 0, 1, 2, 3, 4.
However, we can call `range` with some additional, *optional parameters* - a value to start at, and a step size. You can specify a start value by calling `range(start, stop)`, like this:

```
>>> range(2, 5)
range(2, 5)
```

which is the sequence of values 2, 3, 4
To specify a step size, you must specify a start value - the call is `range(start, stop, stepSize)`, like this:

```
>>> range(2, 10, 2)
range(2, 10, 2)
```

which gives the sequence of values 2, 4, 6, 8
Note that these parameters - start, stop, stepSize - are the same parameters that you can use when slicing a string:

```
>>> s = "Hello, world!"
>>> s[1:] # s[start:]
ello, world!
>>> s[1:10] # s[start:stop]
ello, wor
>>> s[1:10:3] # s[start:stop:stepSize]
eow
```

In this problem you'll get more practice on using `range`. You can also see more examples of 'range' here.

1.
```
num = 10
for num in range(5):
    print(num)
print(num)
```

0, 1, 2, 3, 4, 4   ✔

Answer: 0, 1, 2, 3, 4, 4

2.
```
divisor = 2
for num in range(0, 10, 2):
    print(num/divisor)
```

0.0, 1.0, 2.0, 3.0, 4.0 ✔

Answer: 0.0, 1.0, 2.0, 3.0, 4.0

3.
```
for variable in range(20):
    if variable % 4 == 0:
        print(variable)
    if variable % 16 == 0:
        print('Foo!')
```

0, Foo!, 4, 8, 12, 16, Foo! ✔

Answer: 0, 'Foo!', 4, 8, 12, 16, 'Foo!'

4.
```
for letter in 'hola':
    print(letter)
```

h, o, l, a ✔

Answer: 'h', 'o', 'l', 'a'

5.
```
count = 0
for letter in 'Snow!':
    print('Letter # ' + str(count) + ' is ' + str(letter))
    count += 1
    break
print(count)
```

Letter # 0 is S, 1 ✔

Answer: 'Letter # 0 is S', 1

[Enviar]

ⓘ   Answers are displayed within the problem

✏

Exercise 5

Topic: Lecture 2 / Exercise 5

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?   question 1   3
In Question 1, when num is assigned with 10, how can num in for loop starts from 0? Please expla...

?   Question 5   3
I don't understand how str(letter) is 'S'

?   Exercise 1, how is 10 in range (5)?   2
The code says num = 10 for num in range(5): print(num) print(num) What I understand from this i...

?   num = 5 if num > 2: print(num) num -= 1 print(num)   3
num=5; num>2; 5 will be printed; num-=1 will give 4 . 4>2; 4 will be printed; num-=1 will give 3 . 3>...

?   Question 1   11
I am a little confused about this one num = 10 for num in range(5): print(num) print(num) I under...

?   Question 3   5
hi! Can some one explain question 3?. is in range(20), so i thought it would take values from 0 to 1...

💬   Question 2   2
I answered 0, 1, 2, 3, 4 which are integers. Why is this considered wrong?

💬   Teaching method   2
Anyone else agrees this is the most frustrating, but still one of the best teaching methods out the...

?   Spoiler question on the example before the exercises   6
here's the example. num = 5 if num > 2: print(num) num -= 1 print(num) If 5 and 4 are printed out...

💬   why do the answers for question 2 require a decimal?   3
just curious. seems a bit arbitrary though i'm sure it isn't? (right?)

☑   Letter   6
In 4, I answered 'error' because the term 'letter' was not defined in the code. How can Python kno...

💬   why is 12 one of the answers for question 3?   2
Again need more explanation

?   Question 1 in relation to variable scope   2
For question 1, the correct output prints 4 twice and I have no idea why, some clarification would ...