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<u>Help</u>

shengtatng ~

☆ Course / Unit 1: Python Basics / 2. Core Elements of Programs (TIME: 54:14)

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# **Exercise 7**

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Finger Exercises due Oct 27, 2022 07:30 +08 Completed

### Exercise 7

5/5 points (graded)

#### **ESTIMATED TIME TO COMPLETE: 10 minutes**

Here is some code:

#### **Code Sample**

```
iteration = 0
count = 0
while iteration < 5:
   for letter in "hello, world":
        count += 1
    print("Iteration " + str(iteration) + "; count is: " + str(count))
    iteration += 1
```

We wish to re-write the above code, but instead of nesting a for loop inside a while loop, we want to nest a while loop inside a for loop. Which of the following loops gives the same output as the **Code Sample**?

Try to answer the following questions by just reading the code. Reading code is a very good skill to have (and will help you both in your programming career and on your exams!). It is okay to check your answers that you obtain from just reading the code, then in your interpreter run the code for the ones you got wrong on your first attempt.

#### Test 1

```
for iteration in range(5):
    count = 0
    while True:
        for letter in "hello, world":
            count += 1
        print("Iteration " + str(iteration) + "; count is: " + str(count))
```

Yes, Test 1 gives the same output as the Code Sample



No, Test 1 does not give the same output as the Code Sample



## Test 2

```
for iteration in range(5):
    count = 0
    while True:
        for letter in "hello, world":
            count += 1
        print("Iteration " + str(iteration) + "; count is: " + str(count))
```

Yes, Test 2 gives the same output as the Code Sample



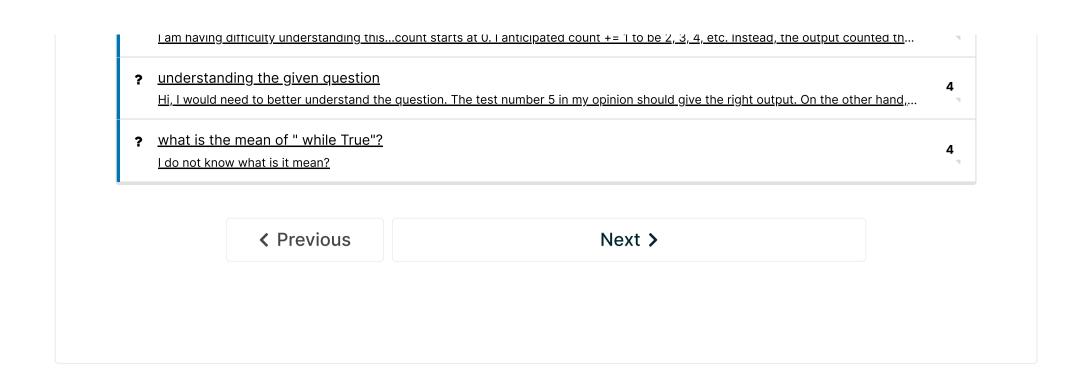
No, Test 2 does not give the same output as the Code Sample



## Test 3

```
count = 0
phrase = "hello, world"
for iteration in range(5):
    index = 0
                                                                                                       Hide Notes
    while index < len(phrase):</pre>
```

```
count += 1
          index += 1
     print("Iteration " + str(iteration) + "; count is: " + str(count))
  Yes, Test 3 gives the same output as the Code Sample
      No, Test 3 does not give the same output as the Code Sample
Test 4
 count = 0
 phrase = "hello, world"
 for iteration in range(5):
     while True:
          count += len(phrase)
          break
     print("Iteration " + str(iteration) + "; count is: " + str(count))
  Yes, Test 4 gives the same output as the Code Sample
      No, Test 4 does not give the same output as the Code Sample
Test 5
 count = 0
 phrase = "hello, world"
 for iteration in range(5):
     count += len(phrase)
     print("Iteration " + str(iteration) + "; count is: " + str(count))
  Yes, Test 5 gives the same output as the Code Sample
      No, Test 5 does not give the same output as the Code Sample
  Submit
Exercise 7
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  ? Test 3,we doesn't index go back to 0?
                                                                                                                    3
     On the 3rd test I cannot understand why index doesn't go back to 0, the algorithm says index+=1 but then it goes again back again ...
  didn't understand how the code works
                                                                                                                    2
     in the sample why does the count multiply by 2
  ? test 2 and test 4, the break position
                                                                                                                    2
     i can't fully grasp the differnce between these two codes, why break dosesn't let the count go up in the second task, while it doesnt ...
  ? nested loops
                                                                                                                    6
     i am confused why is that the programme does not stop while iteration>5 and goes through until it is 12
                                                                                                                 Hide Notes
  ? Spoiler count += 1
```



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