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## CSCI-UA.0002 – For Loops, Nesting, Some Conditions

1. What sequence of numbers are created by the following ranges (“no sequence” is possible)?

1. `range(4)` \_\_\_\_\_ **0, 1, 2, 3**
2. `range(2, 4)` \_\_\_\_\_ **2, 3**
3. `range(2, 8, 2)` \_\_\_\_\_ **2, 4, 6**
4. `range(10, 6, -1)` \_\_\_\_\_ **10, 9, 8, 7**
5. `range(10, 6)` \_\_\_\_\_ **no sequence**

2. What is the output of the following code (“no output” or “error” are possible)?

1. 

```
answer = 'a'
result = answer != 'a' or answer != 'A'
print(result)
```

 \_\_\_\_\_ **True**
2. 

```
answer = 'a'
result = answer != 'a' and answer != 'A'
print(result)
```

 \_\_\_\_\_ **False**

3. 

```
for i in range(3):
    if i == 1:
        break
    print(i)
```

0

4. 

```
for i in range(3):
    if i == 1:
        continue
    print(i)
```

0
2

3. What is the output of the code below? Use the grid on the right to show the output.

```
display = ''
outer_end, inner_end = 4, 2
for outer_num in range(outer_end):
    inner_num = 2
    while inner_num <= 4:
        if outer_num == 3:
            display += 'X'
        else:
            display += str(inner_num)
            inner_num += 2
        display += '\n'
    print(display)
```

2	4			
2	4			
2	4			
X	X			

4. Create a while loop that is equivalent to the for loop below.

<pre>for i in range(2, 12, 3):     print(i)</pre>	<pre>i = 2 while i &lt; 12:     print(i)     i += 3</pre>
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