

Name:

Student ID:

**Instruction:** You can solve the programming questions using the Python interpreter (Idle, Jupyter Notebook, Spyder etc.), just rewrite your answers at the end.

**Question 1.** What does a break statement do? What is continue statement used for?

**Question 2.** Write a script that:

Step 1. reads a string from the user.

Step 2. verifies if the string contains only letters

Step 3. prints "a first, o inside" when the first letter of the string is "a" and there is "o" somewhere in a string, "maybe a is first, maybe there is o" when "a" is first or there is a letter "o" occurring in the string, or "There is no o in the string" otherwise.

Example 1: "aoaoaoao"

Answer: "a first, o inside"

Example 2: "nonono"

Answer: "maybe a is first, maybe there is o"

**Question 3.** Write a script that creates two list, list\_1 and list\_2: list\_1 should contain all the odd numbers from 0 to 50, list\_2 should contain all the even numbers from 30 to 100. Use the two lists to create one long list that would include elements from list\_1 and list\_2. Do not nest the lists.

Example 1:

list\_1 = [1, 3, 5]

list\_2 = [10, 12, 14]

Answer: [1, 3, 5, 10, 12, 14]

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**Instruction:** You can solve the programming questions using Python (command line, Idle, Jupyter Notebook, Spyder etc.), just rewrite your answers at the end.

**Question 1.** What is the difference between the `remove` and `pop` list methods?

**Question 2.** Write a script that:

step 1. reads a string from the user,

step 2. counts how many times a digit 1 and 2 appears in it (separate counts for each digit)

step 3. prints "Even number of 1 and 2" when the 1 and 2 number is even, "Even number of 1 or 2" when one of the counts is even or "None of the counts is even" otherwise.

Example 1: "12342222222222222222"

Answer: "Even number of 1 or 2"

Example 2: "12234222222222222222"

Answer: "None of the counts is even"

**Question 3.** Write a script that would verify how many common characters there are in two strings. (`str_1` and `str_2`)

Count only unique characters. Print the answer.

Example 1:

`str_1 = "banana"`

`str_2 = "anna"`

Answer: 2

Example 2:

`str_1 = "cherry"`

`str_2 = "chair"`

Answer: 3