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Section:

CSE 160 Spring 2025 - Quiz 1

Instructions:

- You have **until 4:15pm (5 minutes before the end of class)** to complete this exam.
- The exam is **closed book**, including no calculators, computers, phones, watches or other electronics.
- You are allowed a single sheet of notes for yourself.
- We also provide a syntax reference sheet.
- Turn in ***all sheets*** of this exam, together and in the same order when you are finished.
- When time has been called, you must put down your pencil and stop writing.
    - **Points will be deducted if you are still writing after time has been called.**
- You may only use parts and features of Python that have been covered in class up to this point.
- You may ask questions by raising your hand, and a TA will come over to you.

Good luck!

Question	**Topic**
Question 1	Expressions
Question 2	If Statements
Question 3	Nested For Loops
Question 4	For Loops & Lists

1. Given the following table with expressions on the left side, state what it evaluates to and the data type of the expression. If the expression causes an error, write `error` in that box instead.

Expression	**Evaluation**	**Data type**
`"1" == 1 or not False`	`True`	Boolean
`print(print("This is a print statement"))`	`None`	None
`1 + 1 + 4 / 2`	`4.0`	Float
`"five" + "five"`	`"fivefive"`	String

2. It's starting to get warmer in Seattle, but you still aren't sure if it's warm enough to go out without a sweatshirt. You decide to write some code that will let you know what you should wear every day for the coming week. Variable `weather` holds all the temperatures for the week (Monday through Sunday). Write a program that prints out `"Shorts and a T-shirt!"` if the temperature is 70 or higher, `"Sweatshirt"` if the temperature is lower than 60, and `"T-shirt"` if the temperature is between the two. Then, write the output of running the program.

```
weather = [72, 88, 60, 67, 70, 59]
```

Answer:

```
for day in weather:
      if day >= 70:
            print("Shorts and a T-shirt!")
      elif day < 70 and day >= 60:
            print("T-shirt")
      else:
            print("Sweatshirt")
```

```
Output:
Shorts and a T-shirt!
Shorts and a T-shirt!
T-shirt
T-shirt
Shorts and a T-shirt!
Sweatshirt
```

3. What is outputted to the console after the following code runs? Note that `str(j)` converts `j` to a string so there are no type errors.

```
for i in range(1, 6):
      row = ""
      for j in range(i, 6):
            row = row + str(j) + " "
      print(row)
```

Answer:

```
1 2 3 4 5
2 3 4 5
3 4 5
4 5
5
```

4. Suppose you have the following list:

```
singers = ["Bowie", "Freddy Mercury", "Madonna", "Prince", "John
Lennon"]
```

(a) What is the output of running the following code:

```
for i in singers:
      if len(i) > 7:
            print(i)
```

```
Freddy Mercury
John Lennon
```

(b) What is the output of running the following code:

```
for i in range(1, 10, 3):
      print(singers[3:])
```

```
['Prince', 'John Lennon']
['Prince', 'John Lennon']
['Prince', 'John Lennon']
```

(c) What is the output of running the following code:

```
singers.append("Sabrina Carpenter")
for i in singers:
    if "n" in i and len(i) > 6:
        print(f"I listen to {i}")
```

```
I listen to Madonna
I listen to John Lennon
I listen to Sabrina Carpenter
```