CS 115 - Lab 0 – Experimenting with Strings and Lists

In this lab, you will write two simple functions that requires basic level of string and arithmetic operations knowledge. The goal of this lab is to get familiar with different data types, some built-in functions, and arithmetic operations.

Please be sure to include a docstring for each function you write.

First Task: Same Function

Write a short function called `same(word)` which checks if a given ascii string has the same first and last letters (not case sensitive). E.g.: "test", "Researcher", "Stevens" will return True, "Wireless", "learn" will return False. Assume that the given string has at least one character or more.

There exist some Python functions that you can use to test the equality of strings without case sensitivity, such as `lower()` and `casefold()`. Please check out the link to learn more about these built-in string functions: https://docs.python.org/3/library/stdtypes.html#text-sequence-type-str

To calculate the length of a string, you can use the built-in `len()` method.
```
>>> len("computer")
8
```

Second Task: ConsecutiveSum Function

Write a function called `consecutiveSum(x, y)` which finds the sum of consecutive integers between two numbers. Function receives two inputs: starting number (x) and ending number (y). Assume x < y and x ≥ 1.
To find the sum of consecutive integers between x and y (both x and y excluded), such as:

$$(x + 1) + (x + 2) + \ldots + (y - 2) + (y - 1)$$

we use the following formula:

$$\frac{x + y}{2} \times (y - x - 1)$$

Last Task: Test the correctness of your functions by using the given test file

1. Please check if you have used the given lab file `lab0.py` to write your solutions. If you have not, make sure to add your name and pledge on top of your solution file.

2. There is a Python file in the lab assignment with the name `test_lab0.py`. Put that file into the same folder with your code file.

3. Open the `test_lab0.py` file and change the lab0Solution in the line "import lab0Solution as lab0" with your file name. Or you can change your file name to lab0Solution.py

4. Run the `test_lab0.py` to test your code. If your solution has passed all the tests, it will print a result like this:

   Ran 8 tests in 0.145s

   OK

5. If you see an error like below, make sure to solve it before you submit your solution.

   Ran 8 tests in 0.130s

   FAILED (failures=1)