Problem 1
- What is the output of print(str[2:5]) if str = ‘Hello World!’?

- What is the output of print(str * 2) if str = ‘Hello World!’?

- What is the output of print(tuple * 2) if tuple = (123, ‘john’)?

Problem 2
- Write a function last_two(str) that will take a string called str as a parameter. The function will return the last two characters of the string. If the string has less than two characters, return an empty string.

Example: last_two(“Hello World”) will return “ld”
Problem 3
(For the following three mini-problems, we’d like you to get familiar with reading Python 3 documentation, so have someone in your team ready to look up string functions to help you solve these. https://docs.python.org/3/library/stdtypes.html#string-methods or Google Python 3 strings and go to the methods section. Do not use loops.)

- Write a function dash_list(str) that will take a string called str as a parameter. This string will be composed of words separated with dashes (the '-' character). The function will return a list of strings where each string in the list is one of the words in the original string. The list should not have any dashes in it.

  Example: dash_list("CS-120-Summer-2017-U-of-A")
  Should return ["CS","120","Summer","2017","U","of","A"]

- Write a function comma_str(L) that will take a list of strings called L as a parameter. This function will return a string with commas inserted between the words.

  Example: comma_str(["CS","120","Summer","2017","U","of","A"])
  Should return “CS,120,Summer,2017,U,of,A”

- Write a function strip_case(str) that will take a string called str as a parameter. This function will return an uppercase version of the string with all exclamation points and question marks from both sides removed.

  Example: strip_case(“?!?!?!?!!?!!?how are you?!?!?!?!?!?”)
  Should return “HOW ARE YOU”
Problem 4
- Write a function `sum_list(L)` that will take a list called `L` as a parameter. The function will loop over the list of numbers and add them. It should then print the sum and return it. (Practicing loops is important, so do this with a for loop and then with a while loop. But is there a standard library function to make this faster? Have one of your team Google for an answer.)

Example: `sum_list([5, 6, 7])`
should print “Sum 18” and return 18

Problem 5
- Write Python code to read from two files, `testOutput.txt` and `realOutput.txt`, and compare each line in the file with the corresponding line in the other. If the lines are the same do nothing. If they are different print a message that says that there are differences between the files.
Problem 6
- Write a function flip_dictionary(D) that will take a dictionary called D with integers as keys and strings as values as a parameter. The function will return a new dictionary where strings are keys and integers are values.

Example: flip_dictionary({1:“a”, 2:“b”, 3:“c”, 4:“d”, 5:“e”, 6:“f”})
will return: {“a”:1,”b”:2,”c”:3,”d”:4,”e”:5,”f”:6}

Bonus: Normally, this function returns a dictionary with the same number of items as its input. But occasionally, the new dictionary has fewer. Can you figure out why this might happen?