CSC 120 **ICA-27**

Work with your neighbor. (This will be graded for participation only.)

1. Consider the following problem specification: *Write a program that reads a file and computes (and prints out) the length of the longest line in that file.*

   Write the following black box tests for this program:

   a. two error cases

   b. two edge cases

   c. one regular (normal) case

2. Consider the following problem specification: *Write a program that reads a (possibly empty) file containing only numbers (and whitespace) and prints out the difference between the smallest and largest numbers. An empty input file should generate no output.*

   Write the following black box tests for this program:

   a. two error cases

   b. two edge cases

   c. one regular (normal) case

3. The function `my_sqrt(n)` returns the square root of `n`. Use an assert statement to enforce that `n` must be non-negative.

```
import math

def my_sqrt(n):


    return math.sqrt(n)
```

4. Write `assert` statements to enforce the following:

    a. `x > y`

    b. `word` is a key in the dictionary `word_count`

    c. `i` is an even number

    d. the string `s` has at least 2 characters

5. Suppose that you have a list of numbers, `num_list`. You need to ensure that `num_list` has at least one even number in it. Write a function `has_evens(num_list)` that can be used in the assert statement below:

```
assert has_evens(num_list), "no evens in num_list”
```