CS-1181 Lab Problem 10: String Distance

PURPOSE: To review and practice writing recursion

DIRECTIONS:

Part A (Due by end of first lab session)

Consider the following method description: Given a string and a non-empty substring `sub`, compute recursively the largest substring which starts and ends with `sub` and return its length.

Write **ONLY THE BASE CASES** for the described method.

```
strDist("catcat", "cat"); // -> 6
strDist("cow", "cow");    // -> 3
strDist("asd", "cat");    // -> 0
```

Carefully consider if your method should have multiple base cases, and what each represents.

Part B

Continue writing your method from Part A, finalizing it with the recursive cases.

In addition to the following test cases, be sure to test your method thoroughly

```
strDist("catcowcat", "cat");     // -> 9
strDist("catcowcat", "cow");     // -> 3
strDist("cccatcowcatxx", "cat"); // -> 9
```

For full credit, ensure that your program is well commented and follows JavaDoc standards for your method(s). Comments are only required for the Part B segment of the lab.

RUBRIC:

[1pt] Documentation
[1pt] Part A correct
[1pt] Part B correct