Homework Assignment #3

Assigned: Tuesday, July 17th, 2012
Due: 12pm noon on Saturday, July 21st

Instructor: Yinggang Huang (email: huang58@wisc.edu)
TA: Newsha Ardalani (email: newsha@cs.wisc.edu)

Hand in your homework:

This homework assignment covers concepts learned in Chapters 5(static methods) && 6(arrays). You must do this homework alone. Submit your HW to dropbox created for HW3 in Learn@UW.

Assignment grading questions must be raised with Newsha or me within one week after the assignment is returned.

Collaboration Policy:

You are to complete this assignment individually. However, you are encouraged to discuss the general algorithms and ideas with classmates, TAs, and instructor in order to help you answer the questions. You are also welcome to give each other examples that are not on the assignment in order to demonstrate how to solve problems. But we require you to:
   • not explicitly tell each other the answers
   • not to copy answers or code fragments from anyone or anywhere
   • not to allow your answers to be copied
   • not to get any code on the Web

In those cases where you work with one or more other people on the general discussion of the assignment and surrounding topics, we suggest that you specifically record on the assignment the names of the people you were in discussion with.

Problem 1: Program I *(30 points)*

Implement the static method replace() following the specs in the comments. After you are done, check if your code works correctly by main method provided as the tester.

IMPORTANT NOTE:

Please submit ONLY StringReplace.java to the dropbox for Homework 3. DO NOT submit a word document or anything other than StringReplace.java

```java
/**
 * Contains an equivalent implementation of the library's String.replace.
 */
public class StringReplace {
  /**
   * Replaces each substring of this string that matches the literal target
   * sequence with the specified literal replacement sequence. The
   * replacement proceeds from the beginning of the string to the end, for
   * example, replacing "aa" with "b" in the string "aaa" will result in
   * "ba" rather than "ab".
   *
   * @param  in The string to be searched and modified.
   * @param  what The sequence of char values to be replaced
   * @param  with The replacement sequence of char values
   * @return  The resulting string
   */
  public static String replace(String in, String what, String with) {



  }


  /** Tests our replace method. */
  public static void main(String[] args) {
    System.out.println(
        "replace(\"I went home.\", \" \", \"-\") = \"" +
        replace("I went home.", " ", "-") + "\"");

    System.out.println(
        "replace(\"I watched the ditch.\", \"tch\", \"sh\") = \"" +
        replace("I watched the ditch.", "tch", "sh") + "\"");

    System.out.println(
        "replace(\"Not long enough.\", \"enough...\", \".\") = \"" +
        replace("Not long enough.", "enough...", ".") + "\"");
  }

}
```