TOBB University of Economics and Technology
Department of Computer Engineering

BİL141 Computer Programming (Java)
Spring 2016

Homework 2

Due by Feb 2 (Tuesday) 24:00

Subject: Loops, arrays, Strings

1) (Savitch, Ch4. Exercise 4) Write a program (**SumOfOdds.java)** that will compute the sum of the first *n* positive odd integers. Your program should read *n* from user. For example, if *n* is 5, you should compute 1 + 3 + 5 + 7 + 9.

2) (Savitch, Ch4. Exercise 9) For all of the following words, if you <u>move the first letter to the end of the word, and then spell the result backwards</u>, you will get the original word:

      banana dresser grammar potato revive uneven assess

   Write a program (**WordBackwards**.java) that reads a word and determines whether it has this property. Continue reading and testing words until you encounter the word *quit*. Treat uppercase letters as lowercase letters. Following is a sample run:
      Enter a word: *Banana*
      -> Yes, banana==b-anana
      Enter a word: DRESS
      -> No, dress!=d-sser
      Enter a word: PotaTO
      -> Yes, potato==p-otato
      Enter a word: Quit
      -> Bye

3) (Savitch, Ch4. Exercise 13) Write a program (**Triangle**.java) that asks the user to enter the size of a triangle (an integer from 1 to 50). Display the triangle by writing lined of asterisks. The first line will have one asterisk, the next two, and so on, with each line having one more asterisk than the previous line, up to the number entered by the user. On the next line write one fewer asterisk and continue by decreasing the number of asterisks by 1 for each successive line until only one asterisk is displayed. (*Hint:* Use *nested* for loops; the outside loop controls the number of lines to write, and the inside loop controls the number of asterisks to display on a line.) For example, if the user enters 3, the output would be

   *
   **
   ***
   **
   *

In each program have the following comments at the top.

/*
 * BİL141 Spring 2016
 * HW#
 *
 * NameOfTheProgram (ex: GradeCalculator)
 * Explanation (ex: Given a number of grades (0-100),

```
 * Counts the number of letter grades)
 *
 * @author      Firstname Lastname (Student number)
 * @email  ....@etu.edu.tr
 * @date        yyyy/mm/dd
 */
```