CSC 345 Kickstarter

These programming exercises are a review of the what we covered is CSC 145. Write a java program that implements each of these as a method. You may write separate programs or combine these methods into a single project.

1. Write a Java method that determines how many digits an integer has. The integer can be positive or negative.

2. Write a Java method that displays the middle value (with respect to size of number) of three doubles X, Y, and Z.

3. Write a Java method that uses a loop to compute the sum of all squares between 1 and 100 (inclusive).

4. Write a Java method that uses nested loop to print a triangle of asterisks of the form shown below given the size of the triangle n as its argument. In the example below, n=5. Do not hard-wire your method for n=5.

   * 
   * * 
   * * * 
   * * * * 
   * * * * *

5. Write a Java method at accepts an integer argument n and returns the most significant (leftmost) digit of n.

6. Write a Java method that returns the count of the number of words in a string. Words are separated by non-alphabetic characters, such as spaces and punctuation. Don't worry about hyphenated words or contractions.

7. Write a Java method that returns its string argument in reverse order.

8. Write a recursive Java method to compute the nth Fibonacci number fibo(n) where fibo(1) = 1, fibo(2) = 1, fibo(n) = fibo(n-1) + fibo(n-2).

9. Write a Java method that returns the largest value of an array of doubles passed to the method as an argument.

10. Write a Java Boolean method that returns true only if the values in the array argument are in ascending order.

11. Write a Java method that generates an array of n random integers in the range -10 to +20, where n is an argument of the method.

12. Use the BankAccount class as you write a program that performs the following transactions in the order specified:

   a. open a new account named myAccount with a starting balance of $10000.00
   b. withdraw 5000.00 and show current balance.
   c. withdraw 4000.00 and show current balance.
   d. withdraw (or attempt to withdraw) 2000.00 indicate how much is actually withdrawn.
   e. deposit 2500.00 and show current balance.
   f. check minimum balance and current balance.
   g. reset minimum balance and check current balance.