Lab 8

Create a new Eclipse project named YourStudentId_Lab8 and add a class named Tester8 to the project.

1. Declare an integer array "`squareValue`" which can store 6 integer elements.

2. Show the length of `squareValue` in the console.

3. Use "`for loop`" and `pow()` in Math to assign following values to the array.
   - Hint: Index: 0 vs 1
   - Cast the value from pow() to int

Index	0	1	2	3	4	5
Value	1	4	9	16	25	36

4. Use for or while loop to iterate through the array and print the element of `squareValue`[i] and sum up the value as sample output.
   Hint:
   - Index: 0 vs 1
   - Declare a variable before the loop for storing the sum up value.

   Sample output:

```
1: 1
2: 4
3: 9
4: 16
5: 25
6: 36
Sum: 91
```

5. Declare a method named "calculateAvg" which has a input parameter: int[] arr, and returns a double value. It will do the following jobs:
   A. Use "enhanced for loop" to sum up the value
   B. Calculate the average.
   C. Return the average.

   Code for your reference:

```
// In main method
System.out.println("Average: " + calculateAvg(squareValue));
//Output: Average: 15.166666666666666

//In Class Tester8
public static _____________ (the underline is the method you need to implement.)
```

   The expected return value is 15.1666666..., you don't have to round up the return value.

6. **(TBD)** Use an array to make a multiplication table. Please follow the steps below:
   A. Declare a two-dimension array "multiTable" which dimension is (3, 3).
   B. Use nested-for loop to go through from (0, 0) to (2, 2) and assign corresponding value (i*j)
      Hint: given i = 0 and j = 2, the element at multiTable[0][2] is 3 (1*3).
   C. Print the multiplication table in the console as the output below, you may refer to exam 1 question 14.

```
1 * 1 =  1   2 * 1 =  2   3 * 1 =  3
1 * 2 =  2   2 * 2 =  4   3 * 2 =  6
1 * 3 =  3   2 * 3 =  6   3 * 3 =  9
```

Submission: Submit your project as "zip (or rar) file" via WM5. No other submissions will be graded.

Reminder: Please zip the whole project

Deadline: Tomorrow's midnight (for both Mon56 and Tue23)