Programming Assignment #5: Methods

Program Problem: A particular talent competition has five judges, each of whom awards a score between 0 and 10 to each performer. Fractional scores, such as 8.3, are allowed. A performer's final score is determined by dropping the highest and the lowest score received, then averaging the three remaining scores. Write a program that uses these rules to calculate and display a contestant's score. It should include the following functions:

- getJudgeData() should ask the user for a judge's score, validate it, and then return it. This function should be called by main once for each of the five judges.
- calcScore() should drop the highest and lowest score and then calculate and print the average of the three scores that remain. This function should be called at least once by main and should be passed the five scores. These averages should be rounded to the tenths decimal place. Make sure you are rounding **after** your calculation (3.57 = 3.6 and 3.54 = 3.5)

Two additional functions, described below, should be called by calcScore, which uses the returned information to determine which scores to drop.

- findLowest() should find the lowest of the five scores passed to it.
- findHighest() should find and return the highest of the five scores passed to it.

Make sure that your program is user friendly and that you test that it works as expected.

Documentation: You must use a readable, logical, and coherent set of style and formatting rules. You are to stick to the "structured approach" in programming**.** Be sure to comment your code in addition to the required header. Each submission must have a block comment area that includes: Your first and last name, program exercise title, program due date, and the program description.

Submission Details: All submissions are electronic. When you turn in a programming assignment, you must send me a compilable and correctly working copy of the assigned program source code. I will, at my discretion, compile and run (on my own test input) the programs you submit electronically. This is a part of my grading procedure. Your program must work. That means it must compile correctly, run according to specifications, and give correct results. Generally, a program that works will receive at least 40-50 percent of full credit. The rubric used for scoring is visible to you so please review it before you submit your assignment. Submit your source file for this program this means you are giving me your **<lastnameMethods.java>** file not a link to an online compiler, text file, or executable file. In addition to your java file, include a word document that has screen snips for your test runs name that file **<lastnameLoopsTests.docx>.** *Your testing log needs to test the boundaries of your program. You should test your incorrect input statements work as designed and you should test each structure in your program. That should include being sure there are no infinite loops in your code or computations with negative numbers/letters etc.*

For full credit, your program must also meet the following criteria:

- Good design, including good algorithms.
- Good form, including documentation, and readability.

- Adequate testing, especially the testing of data boundaries and special cases.

You need to do a good job on all the criteria to receive an "A" on your program.