CSCD 210
Lab 8

SPECIFICATION
You will write a statistics program which will maintain an array of int values and then perform various operations on the array:

1) Add a value to the array
2) Delete a value from the array (by value)
3) Delete a value from the array (by location)
4) Display the array
5) Compute the mean of the array
6) Compute the median of the array
7) Compute the midpoint of the array
8) Compute the standard deviation of the array
9) Quit

When the program starts you will ask the user for a number that is 1 or greater. You must ensure the value is 1 or greater. After you obtain the value for the number of elements in the array, You will then fill the array with values by prompting the user to enter integers.

The user can then select any of the above choices. I have provided a main for you which you can't change, or add to.

For 1) adding a value to the array by adding a new element in the array, the user will specify that value.

For 2) and 3) the user can't delete if there are no elements remaining in the array

For 4) if the array is empty (length is 0) state the array is empty otherwise print the array as [value, value, value]

For 5) through 8) if the array is empty (length of 0) throw the illegal argument exception otherwise print the selection name is: and the value (e.g. Mean is: 1.5).

After you compile and execute your program capture the output, and save the output into a text file named **cscd210lab8out.txt** ensuring you test each option.

NOTE: You CANNOT use try/catch for this lab, you don't need them.

NOTE: You CANNOT use Arrays.sort() – I provided a sort method

TO TURN IN:

A zip file that contains
- All your java code in the appropriate package
- cscd210lab8out.txt

Name the zip file your last name first letter of your first name lab8.zip (Example: steinerslab8.zip)