ASSIGNMENT 4

The purpose of this assignment is to give you some practice writing and evaluating sort algorithms.

Implement the attached IntSorter interface for the following algorithms:

* InsertionSorter.java
* SelectionSorter.java
* MergeSorter.java

A bubble sort example is attached for illustrative purposes.

* Interfaces implemented and code compiles (25 points)
* Insertion Sort (5 points)
  + - 3 points for proper sort behavior.
    - 1 point for reasonable number of moves.
    - 1 point for reasonable run time.
* Selection Sort (5 points)
  + - 3 point for proper sort behavior.
    - 1 point for reasonable number of moves.
    - 1 point for reasonable run time.
* Merge Sort (7 points)
  + - 5 points for proper sort behavior.
    - 1 point for reasonable number of moves (*note: for Merge Sort, "moves" should be the number of times a value is moved into the temporary array*).
    - 1 point for reasonable run time.
* Explanation (4 points): test your code with arrays of different sizes. Include a file with these answers called "explanation.txt" in your submission.
  + - What are the outputs for number of moves?
    - What are the outputs for runtime?
    - How do your results compare to your understanding of these algorithms?
    - If they are different, why do you think this is?
* Grader's discretion (4 points): reasonable code style / understandable code / proper implementation