# Sorting Exercises

Sorting algorithms range from simple to intricate, and provide an excellent range of examples of problem-solving.  This exercise will come in three phases.  In the first phase we will build a few of the simplest sorting algorithms.  In the second phase we will tackle a few more complex algorithms.  The final phase is completing algorithmic analysis and timing tests.

- Bubble Sort **(5 Points)**
- Insertion Sort **(10 Points)**
- Selection Sort **(10 Points)**
- Shell Sort **(15 Points)**
- Merge Sort **(20 Points)**
- Heap Sort* **(10 Points)**
- Quick Sort **(20 Points)**

*(You can use the existing Java heap (i.e., PriorityQueue) for 10 points, or build your own version of a heap for 20 points)