1. Quicksort
   1. N log N, N log N, N^2 (asc, random, des)
   2. The sort works on sections of data, then moves to the next section.
   3. The outerloop establishes a pivot for each section it sorts.
2. Insertion
   1. N, N^2, N^2 (asc, random, des)
   2. The sort moves each outer-loop index into a sorted part of array until the value is sorted.
   3. Some data values are moved many times in succession before arriving at the sorted position.
3. Bubble
   1. N, N^2, N^2 (asc, random, des)
   2. The sort switches adjacent values if the lower index has a larger value
4. Shell
   1. N log(N), N log(N), N log(N) (asc, random, des)
   2. The sort sorts in groups and combines those groups
   3. It uses intervals for groupings and the groupings get smaller with outer-loop passes.
5. Selection
   1. N^2, N^2, N^2 (asc, random, des)
   2. The sort finds smallest value to switch with current index of outer-loop.
6. Merge, sorting halves of array
   1. N log(N), N log(N), N log(N) (asc, random, des)
   2. The sort recursively sorts halves of an array.
   3. The sort then combines different fractions of the array into sorted array