**Hypothesis:** The big-o notation describes the time complexity of a function as the input tends to infinity. This means we care about the performance in cases where performance really matters, i.e. dealing with large amounts of data. For the algorithm merge sort, this guarantees a worst-case performance of n\*log(n) as n approaches infinity, which is the fastest known method. However, for smaller N values there may be faster algorithms. Insertion sort is an intuitive method which has a big-o of n^2. The hypothesis is that if N is less than or equal to 50, Insertion Sort will finish in faster time than Merge Sort.

**Methods:**