Report:

I chose to use the quick sort algorithm. I was curious about how it works and wanted to use the exercise to learn.

Worst case:

The worst case is when the pivot element used to divide the partions is at the first element in the array in every instance of the quicksort call.

Time:

$T(N) = N + T(N-1)$

$[N + (N-1) + (N-2) + (N-3) + \ldots + 2] = [(N(N+1) / 2) - 1 = O(N^2)$, Quadratic