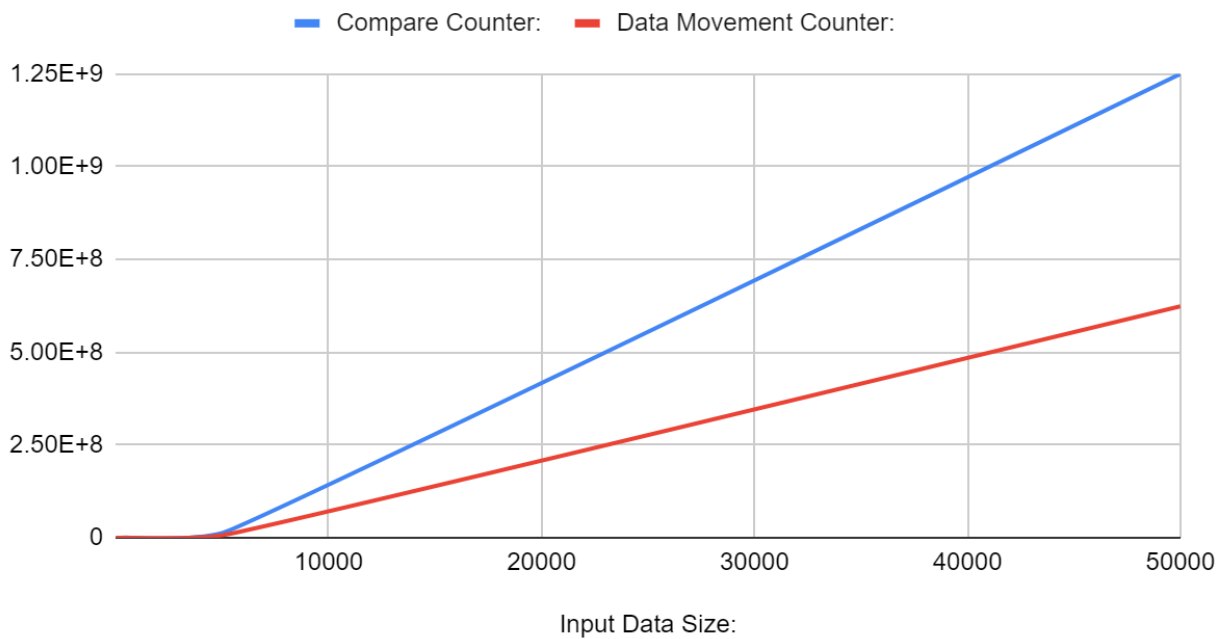


# Sorting Algorithms Comparison

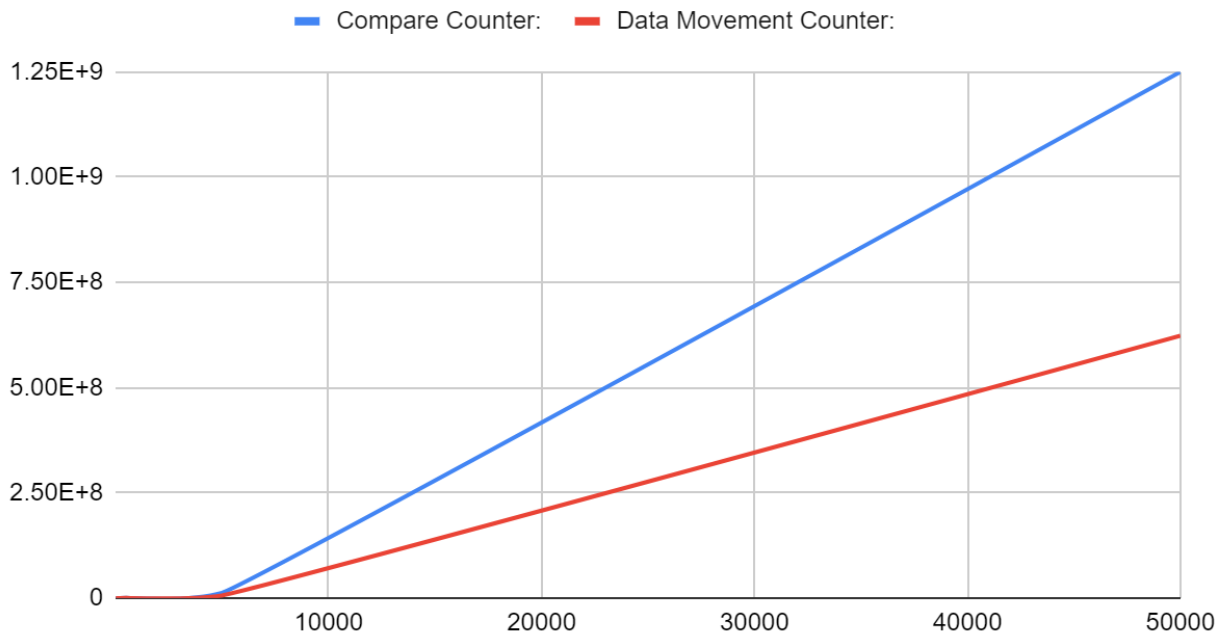
## Bubble Sort



## Quick Sort



## Comb Sort



The program compared three different sorting algorithms. The algorithms tested were Bubble Sort, Quick Sort, and Comb Sort. The results that can be seen on the three graphs are as expected for each algorithm. The expected time complexity for Bubble Sort is that of  $O(n^2)$ . The graph for bubble sort shows a quadratic result for array size vs comparing counter and data movement counter which matches the expected time complexity. For both Quick Sort and Comb Sort the expected time complexity is that of  $O(n \log n)$  which is a linear equation. The graphs for these two sorting algorithms show a linear result for array size vs comparing counter and data movement counter which matches the expected time complexity.