Mir Hossain CS302 Proj4-Report

## **Bubble Sort O(n)**

| Values  | Time(seconds) | Comparisons | Swaps         |
|---------|---------------|-------------|---------------|
| 1,000   | .0012         | 46,762      | 11,568        |
| 10,000  | .8631         | 4,102,103   | 1,600,630     |
| 100,000 | 133.042       | 350,095,822 | 1,315,776,208 |

## **After Sorting:**

Time(seconds): 0

Comparisons: 999

Swaps: 0

## **Quick Sort O(nlogn)**

| Values  | Time(seconds) | Comparisons | Swaps      |
|---------|---------------|-------------|------------|
| 1,000   | .003          | 10,741      | 10,491     |
| 10,000  | .1839         | 713,747     | 710,518    |
| 100,000 | 3.7715        | 49,820,751  | 49,563,192 |

## **After Sorting:**

Time(seconds): 0

Comparisons: 314439

Swaps: 299241