Section Worksheet #6

1. Sort 3, 1, 4, 1, 5, 9, 2, 6, 5 using insertion sort.

2. Sort 3, 1, 4, 1, 5, 9, 2, 6, 5 using merge sort.

3. Sort 3, 1, 4, 1, 5, 9, 2, 6, 5, 3, 5 using quick sort with median-of-three pivot, with insertion sort cutoff at 3.

4. Sort 25, 36, 85, 93, 21, 74, 22, 12 using radix sort with radix=10.

5. What would be the runtimes of the following algorithms if your data were all identical (only one unique item, e.g 7,7,7,7,7), sorted, or reverse sorted?

	Identical	Sorted	Reverse-sorted
Insertion Sort			
Selection Sort			
Heapsort			
Mergesort			
Quicksort			
Bucket Sort			
Radix Sort			