1) Here I implemented the pseudocode of merge sort Algo.

2) Here I took the merge sort Algo and tweaked it so that it only compared the values and returned the large one.

3) Implemented the merge method but incremented a counter only when there was a value less than the current one.

4) Found out the man value and the man possible sum value and compared throughout the array.

I mergesorted the array of q squared values and so my time complexity is $O(N \log n)$

5) Implimented the pseudeocode fore quicksoret.

6) Used the logic of partition of quick soret and serrching to find out the Kthsorallest value (Basically quick select Algo).