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Alpha: Insertion Sort

Gamma: Merge Sort

Elipson: Quick Sort

Zeta: Selection Sort

Thete: Heap Sort

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### **Clarification:**

1-Alpha is Insertion→ Because it's Best Case is  $O(n)$  in (in Order ) which has a flag indicates that is no movements has been happened ,so it's movements is equal to Zero

2-Gama is Merga→ Because it's Complexity in all Cases (in order,random,almost order) is Which is  $N\log n$ . And has Same Movements (Create new array in every Call)→Same Space Complexity  $O(N)$ .

3-Elipson is Quick → Due to its complexity in Worst Case  $N^2$  which is in (in order case) while its best case is  $N\log n$  which is in (random the data) so it has lower number of movements.

4-Zeta is Selection→Because its complexity is  $N^2$  and is Constant in all Cases, and gives zero Movements.

5-Theta is Heap→Because I have already got all sorts :D and also all cases around  $N\log n$  .