

Assignment -4

1. Given a sorted array and a number X , search two elements of the array such that their sum is X . Expected time complexity is $O(n)$
2. Apply Merge Sort to count inversion pairs in an array. Two elements $a[i]$ and $a[j]$ form an inversion pair if $a[i] > a[j]$ and $i < j$. Example: The sequence 2, 4, 1, 3, 5 has three inversions (2, 1), (4, 1), (4, 3).