

## Practice Lab Assignment 8

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#### Instructions

**Do the following on your notebooks. No need to submit the work. But show your work to TA for getting the attendance.**

1. Work out the number of swappings needed to sort the numbers 8, 22, 7, 9, 31, 5, 13 in ascending order using bubble sort.
2. Apply the Mergesort algorithm discussed in the class on the array  
[ 23 66 82 10 34 9 50 8]
3. Apply Quicksort algorithm on the following array choosing first element as pivot  
[ 56 78 10 71 18 40 66 32 80]
4. Solve the following recurrence relation  
 $T(n) = T(n - 1) + 3, \quad T(1) = 1$