

## MA251 Data Structures Lab

Jul - Nov 2021

### Assignment 2

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1. Implement the Divide and Conquer Algorithm for counting the number of inversions of an array.
  - (a) First check whether your program counts 0 inversions for a sorted array and  $\frac{n(n-1)}{2}$  for a reverse sorted array;
  - (b) Test your program correctness with “tstcase1.txt”;
  - (c) Find the number of inversions for the integers in the file “tstcase2.txt”. This file contains numbers between 1 and 100000 in some order with no repetition.