The task of this assignment is to compute the number of inversions in the file given, where the ith row of the file indicates the ith entry of an array.

The input file(IntegerArray.txt) contains all of the 100,000 integers between 1 and 100,000 (inclusive) in some order, with no integer repeated.

The definition of Inversion:
For an array A containing numbers 1,2,3,...,n in some arbitrary order, the number of inversions represents the number of pairs (i, j) pairs of array indices with i > j and A[i] < A[j].

This solution uses devide and conquer algorithm which successfully reduced the running time from O(*n*^2) to O(*n* log *n*).