Inversion

Lab 6
Computer Programming
Due date: 12 October, 2019

Problem Statement: Given an array of N elements, find the number of inversion in array. **Note:** The number of inversion is the count of ordered pairs (i, j) such that $i < j$ and $array[i] > array[j]$.

Input
First line of input has N, number of elements in array. Second line has N space separated integers.
Output
Output single integer, number of inversions in the array.

Constraints
$0 <= array[i] < 10^9$
Subtask 1
$1 \leq N \leq 10^3$
Subtask 2
$1 \leq N \leq 10^6$

Sample Test Case

Input	Output
3 1 2 3	0
3 3 1 2	2