CSE431/531 (Fall 2022) Programming Assignment 1
Due date: Monday, 11/20/2022

You need to implement the algorithm for counting inversions. You need to read from the standard input (i.e, the terminal) and output to the standard output (i.e, the screen).

- **Input format**: The first line of the input contains one positive integers n, $1 \leq n \leq 10^6$. The next n lines contain the n integers $A[1], A[2], \cdots, A[n]$; every integer is between 0 and 10^8.

- **Output format**: Just output 1 line, which is total number of inversions.

Example Input: 6 7 3 20 16 5 8	Example Output: 7	The array is $(7, 3, 20, 16, 5, 8)$. The pairs of numbers correspondent to the inversions are $(7,3), (7,5), (20,16), (20,5), (20,8),$ $(16,5), (16,8)$.