Find the number of inversions in the array of numbers. In other words, for a given array $A = \langle a_1, a_2, \ldots, a_n \rangle$ find the number of pairs (i, j) such that $i < j$ and $a_i > a_j$.

The first line of the input contains a natural number N ($1 \leq N \leq 100\ 000$) – the number of array elements. The second line contains N pairwise distinct elements of the array A – non-negative integers not exceeding 10^9.

Print one number – the number of inversions.

Sample input 1:
5
6 11 18 28 31

Sample output 1:
0

Sample input 2:
8
999994 999989 999982 999972 999969 999961 999954 999950

Sample output 2:
28