

Problem C

Pair Numbers

Time limit: 1 second
Memory: 1024 megabytes

Problem Description

In a science competition for talented students, the two best groups of students from the school were given a special problem. Each group collected a sequence of integers from their own experiments. The first group, called Group **A**, conducted measurements in the laboratory on physical variables and recorded a sequence **A** with **N** values. The second group, called Group **B**, conducted different measurements in the natural environment and recorded a sequence **B** also with **N** values.

We call these **2** sequences **A** and **B**, with $\mathbf{A} = [A_1, A_2, \dots, A_N]$ and $\mathbf{B} = [B_1, B_2, \dots, B_N]$, each sequence containing **N** elements. Now, the organizers ask you to perform a special analysis: You need to find how many distinct pairs of indices (i, j) with $i \neq j$ from the two sequences satisfy the following condition: $A_i + A_j > B_i + B_j$; however, with (i, j) and (j, i) is an only pair.

Each group of students wants to prove that their measurements are more accurate than the other group. Therefore, this problem not only requires calculation but also tests your ability to analyze and think creatively. You need to use optimal methods to solve this problem.

Input:

- The first line contains an integer **N** ($1 \leq N \leq 10^6$).
- The second line contains **N** integers A_1, A_2, \dots, A_N ($|A_i| \leq 10^9$).
- The third line contains **N** integers B_1, B_2, \dots, B_N ($|B_i| \leq 10^9$).

Output:

- Output a single integer: the number of index pairs (i, j) such that $A_i + A_j > B_i + B_j$.

Example:

| INPUT | OUTPUT |
|---------------------|--------|
| 3 8 2 5 5 4 5 | 2 |