CODEFORCES
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PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

D. Pair of Topics

time limit per test: 2 seconds

memory limit per test: 256 megabytes

The next lecture in a high school requires two topics to be discussed. The i-th topic is interesting by a_i units for the teacher and by b_i units for the students.

The pair of topics i and j ($i < j$) is called **good** if $a_i + a_j > b_i + b_j$ (i.e. it is more interesting for the teacher).

Your task is to find the number of **good** pairs of topics.

Input

The first line of the input contains one integer n ($2 \le n \le 2 \cdot 10^5$) — the number of topics.

The second line of the input contains n integers $a_1, a_2, \ldots, a_n$ ($1 \le a_i \le 10^9$), where a_i is the interestingness of the i-th topic for the teacher.

The third line of the input contains n integers $b_1, b_2, \ldots, b_n$ ($1 \le b_i \le 10^9$), where b_i is the interestingness of the i-th topic for the students.

Output

Print one integer — the number of **good** pairs of topic.

Examples

input	Copy
5 4 8 2 6 2 4 5 4 1 3	

output	Copy
7	

input	Copy
4 1 3 2 4 1 3 2 4	

output	Copy
0	

Codeforces Round 627 (Div. 3)
Finished

Practice

⭐

→ Virtual participation ⌄

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[Start virtual contest]

→ Clone Contest to Mashup ⌄

You can clone this contest to a mashup.

[Clone Contest]

→ Submit?

Language: [GNU G++20 13.2 (64 bit, win ⌄]

Choose file: [Choose File] No file chosen

[Submit]

→ Last submissions

Submission	Time	Verdict
269001911	Jul/06/2024 04:49	**Accepted**
269001607	Jul/06/2024 04:44	Wrong answer on test 2
269001086	Jul/06/2024 04:34	Wrong answer on test 6

→ Problem tags

binary search   data structures   sortings

two pointers   *1400

No tag edit access

→ Contest materials

- Announcement ✕
- Tutorial ✕

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The only programming contests Web 2.0 platform
Server time: Nov/23/2024 23:29:54 UTC+2 (j3).
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