B. Wet Shark and Bishops

Today, Wet Shark is given n bishops on a 1000 by 1000 grid. Both rows and columns of the grid are numbered from 1 to 1000. Rows are numbered from top to bottom, while columns are numbered from left to right.

Wet Shark thinks that two bishops attack each other if they share the same diagonal. Note, that this is the only criteria, so two bishops may attack each other (according to Wet Shark) even if there is another bishop located between them. Now Wet Shark wants to count the number of pairs of bishops that attack each other.

Input

The first line of the input contains n ($1 \le n \le 200\,000$) — the number of bishops.

Each of next n lines contains two space separated integers x_i and y_i ($1 \le x_i, y_i \le 1000$) — the number of row and the number of column where i-th bishop is positioned. It's guaranteed that no two bishops share the same position.

Output

Output one integer — the number of pairs of bishops which attack each other.

Examples

input
```
5
1 1
1 5
3 3
5 1
5 5
```
output
```
6
```

input
```
3
1 1
2 3
3 5
```
output
```
0
```

Note

In the first sample following pairs of bishops attack each other: $(1, 3)$, $(1, 5)$, $(2, 3)$, $(2, 4)$, $(3, 4)$ and $(3, 5)$. Pairs $(1, 2)$, $(1, 4)$, $(2, 5)$ and $(4, 5)$ do not attack each other because they do not share the same diagonal.