Problem O
Watchmen

Time Limit: **2 seconds**
Mem limit: **256 Megabytes**

Watchmen are in a danger and Doctor Manhattan together with his friend Daniel Dreiberg should warn them as soon as possible. There are n watchmen on a plane, the i^{th} watchman is located at point $(x_i; y_i)$.

They need to arrange a plan, but there are some difficulties on their way. As you know, Doctor Manhattan considers the distance between watchmen i and j to be $|x_i - x_j| + |y_i - y_j|$. Daniel, as an ordinary person, calculates the distance using the formula:

$$\sqrt{(x_i - x_j)^2 + (y_i - y_j)^2}.$$

The success of the operation relies on the number of pairs $(i; j)$ $(1 \leq i < j \leq n)$, such that the distance between watchman i and watchmen j calculated by Doctor Manhattan is equal to the distance between them calculated by Daniel. You were asked to compute the number of such pairs.

Input

The first line of the input contains an integer n $(1 \leq n \leq 200\,000)$, the number of watchmen.

Each of the following n lines contains two integers x_i and y_i $(|x_i|, |y_i| \leq 10^9)$.

Output

Print the number of pairs of watchmen such that the distance between them calculated by Doctor Manhattan is equal to the distance calculated by Daniel.

Sample Input / Sample output

Sample Input	Sample output
3 1 1 7 5 1 5	2
6 0 0 0 1 0 2 -1 1 0 1 1 1	11

Explanation

In the first sample, the distance between watchman 1 and watchman 2 is equal to $|1-7|+|1-5|=10$ for Doctor Manhattan and $\sqrt{(1-7)^2+(1-5)^2}=2\cdot\sqrt{13}$ for Daniel. For pairs $(1;\ 1),(1;\ 5)$ and $(7;\ 5),(1;\ 5)$ Doctor Manhattan and Daniel will calculate the same distances.