

Problem E. New point

Input file: `stdin`
Output file: `stdout`
Time limit: 1 second
Memory limit: 512 megabytes

There are n distinct lattice points (whose coordinates are both integers) in a two-dimension plane, forming geometric patternings.

bobo is going to add a new lattice point so that the total number of right triangles whose legs are parallel to the coordinate axis is maximized.

Note that the new point should be chosen carefully to avoid coincidence.

Input

The first line contains an integer n ($1 \leq n \leq 200000$).

Each of the following n lines contains 2 integers x_i, y_i which denotes the point (x_i, y_i) ($|x_i|, |y_i| \leq 10^9$).

Output

A single integer denotes the maximum number of triangles after adding the point.

Sample input and output

stdin	stdout
4 0 1 1 0 0 -1 -1 0	4
5 0 0 0 1 1 0 0 -1 -1 0	9