

6. PRAVOKUTNI

N points are placed in the coordinate plane.

Write a program which calculates in how many ways a **right triangle** can be formed by three of the given points. A right triangle is one in which one of the angles is 90 degrees.

Input

The first line of input contains an integer N ($3 \leq N \leq 1500$), the number of points.

Each of the following N lines contains the coordinates of one point, two integers separated by a space. The coordinates will be between -10^9 and 10^9 .

No two points will be located at the same coordinates.

Output

Output the number of right triangles.

Sample test data

input	input	input
3	4	5
4 2	5 0	-1 1
2 1	2 6	-1 0
1 3	8 6	0 0
output	5 7	1 0
1	output	1 1
	0	output
		7