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

```
3
4 2
2 1
1 3
```

output

```
1
```

input

```
4
5 0
2 6
8 6
5 7
```

output

```
0
```

input

```
5
-1 1
-1 0
0 0
1 0
1 1
```

output

```
7
```