## Problem B <br> Magical Barrier

There are $N$ power sources, numbered from 1 to $N$, scattered around the ICPC Kingdom. Power source $i$ is uniquely located at coordinate ( $X_{i}, Y_{i}$ ) in a 2D Cartesian plane such that there are no three power sources located in a straight line.

For each pair of distinct power sources $i$ and $j$ that satisfies $1 \leq i<j \leq N$, a magical barrier forms as a line segment that spans from ( $X_{i}, Y_{i}$ ) to ( $X_{j}, Y_{j}$ ).

You noticed a strange phenomenon. When two distinct magical barriers are intersecting, then both magical barriers are somewhat strengthened. To simplify things, you define the strength of a magical barrier $b$ as the number of magical barriers other than $b$ that intersects with $b$. Two distinct magical barriers are intersecting if and only if there exists exactly one point $(x, y)$ that lies on both magical barriers while none of the $N$ power sources are located at $(x, y)$.

You want to find the strength of the strongest magical barrier in the ICPC Kingdom.

## Input

Input begins with an integer $N(2 \leq N \leq 1000)$ representing the number of power sources. Each of the next $N$ lines contains 2 integers $X_{i} Y_{i}\left(-10^{9} \leq X_{i}, Y_{i} \leq 10^{9}\right)$ representing the location of power source $i$. It is guaranteed that the location of each power source is unique, and there are no three power sources located in a straight line.

## Output

Output an integer in a single line representing the strength of the strongest magical barrier.

## Sample Input \#1

```
6
0
0
6
6}
14
12
```


## Sample Output \#1

```
3
```


## Explanation for the sample input/output \#1

Let $\langle i, j\rangle$ be the magical barrier that spans from power source $i$ to power source $j$.

One of the strongest magical barriers is $\langle 1,4\rangle$ with a strength of 3 . The 3 magical barriers that intersect with $\langle 1,4\rangle$ are $\langle 2,3\rangle,\langle 3,6\rangle$, and $\langle 3,5\rangle$. Note that the magical barrier $\langle 2,3\rangle$ also has a strength of 3 .

## Sample Input \#2

$\square$
2
00
01

## Sample Output \#2

0

## Explanation for the sample input/output \#2

The only magical barrier is $\langle 1,2\rangle$ with a strength of 0 .

## Sample Input \#3

```
4
-3 0
30
0 3
0 1
```


## Sample Output \#3

```
O
```


## Explanation for the sample input/output \#3

All magical barriers have a strength of 0 .

## Sample Input \#4

```
4
0
0 1
10
1 1
```


## Sample Output \#4

```
1
```


## Explanation for the sample input/output \#4

The strongest magical barrier is either $\langle 1,4\rangle$ or $\langle 2,3\rangle$, which intersects each other at $(0.5,0.5)$.

