Problem F. Fence

Input file:	`fence.in`
Output file:	`fence.out`
Time limit:	7 seconds
Memory limit:	256 megabytes

Peter has N poles in his vegetable garden. He wants to keep only four poles, all other he will dig out. But he has one restriction — these four poles must form vertices of parallelogram with positive area. Peter wants to know how many ways there are to do this.

Input

There is one integer N ($1 \le N \le 2000$) in the first line of input file. Each of the next N lines contains two integers x_i, y_i ($1 \le x_i, y_i \le 1\,000\,000\,000$) — coordinates of i-th pole.

Output

Print the ways count.

Example

fence.in	fence.out
6 1 1 2 1 3 1 1 2 2 2 3 2	5