Problem Flowers

Input file `stdin`
Output file `stdout`

On a field, there are N flowers, represented as points in a 2D plane. You need to determine the maximum number of flowers that lie on the same straight line. The problem consists of multiple test cases.

Input Data

The first line of the standard input contains the number of test cases, T. The following lines describe the T test cases. The first line of each test case contains the integer N, the number of flowers. The next N lines each contain two integers, X and Y, separated by a space, representing the coordinates (X, Y) of a flower.

Output Data

For each test case, print a single line to the standard output containing one integer: the maximum number of flowers located on the same straight line for that test case.

Restrictions and Clarifications

- $1 \leq T \leq 11$.
- $1 \leq N \leq 1000$ for each test case.
- $-10\,000\,000 \leq X, Y \leq 10\,000\,000$ for the coordinates of each flower.
- No two flowers in a single test case will have the same coordinates.

Examples

Input file	Output file	Explanations
2 4 0 0 1 1 2 2 0 1 2 0 0 1 1	3 2	Test Case 1: There are 4 flowers at (0,0), (1,1), (2,2), and (0,1). The points (0,0), (1,1), and (2,2) lie on the line y=x. This is the maximum number of collinear flowers, so the output is 3.