Problem E. Easiest Game

Input file:	*standard input*
Output file:	*standard output*
Time limit:	5 seconds
Memory limit:	512 mebibytes

After school, you complete all homeworks in 10 minutes. Though most classes are easy and boring, you are still looking forward to the classes tomorrow. Because you like to playing games with Nozomi. Maybe you have fallen in love with her?

To make the classes tomorrow more interesting, you are researching a cool game called "Knight Garden", and want to share this game with her tomorrow.

The game is played on a $n \times m$ board. There is a (r, s)-knight starts from the upper left corner. In each move, this knight can jump from (x, y) to $(x \pm r, y \pm s)$ or $(x \pm s, y \pm r)$, if the position lies in the board. For example, if a $(1, 2)$-knight is at position $(3, 3)$ of a 5×5 board, the knight has eight possible moves.

We say a (r, s)-knight on a $n \times m$ board is lucky if it can visit all positions on the board. Note that each position can be visited multiple times. You think that just to check whether a knight is lucky is too easy for Nozomi. So you want to know when n, m are given, how many integer pairs (r, s) such that $1 \leq r \leq s \leq \max(n, m)$ and (r, s)-knight is lucky on a $n \times m$ board? As usual, there are T similar questions.

Input

The first line contains an integer T.

Each of the following T lines contains two integers n, m.

- $1 \leq T \leq 5000$
- $1 \leq n, m \leq 10^7$

Output

For each question, please output the number of lucky knights on that board.

Examples

standard input	standard output
4 4 4 4 8 8 8 100 100	1 1 4 518