Limbo: Part 1
Problem ID: limbo1

Dominick Cobb and Arthur are “extractors" who perform corporate espionage. Using experimental military technology that gives them access to shared dream worlds, they infiltrate their targets' subconscious to extract valuable information. Cobb and his entourage are contacted by a mysterious Japanese syndicate and given a seemingly impossible task: instead of extracting information, do the opposite – plant a new idea in the target's mind.

Cobb notes that when using dream-sharing technology, time slows down by different factors depending on whose dream is being entered. Their target is to convince Cepshun, the heir of an energy conglomerate, to dissolve his father's company. Before Cobb starts, he notes that it would be important to figure out the passage of time to ensure that the operation can be completed smoothly.

In Cepshun's dreams, there are multiple different layers of consciousness, each of which controls a different area of Cepshun's dreams and memories. Cobb needs to move between several dreams to reach his destination dream – some of them belonging to Cepshun, and some of them belonging to his entourage. He notes that entering the dream of the host allows his gang to move downwards a level, while entering a dream that isn't Cepshun's allows them to move rightwards. The factor by which time slows down for each level forms a rather unusual pattern:

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1 3 6 10 ...
2 5 9 ...
4 8 ...
7 ...
...
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Cobb wants to know the slowness of time inside his target dream, given how far they need to travel rightwards, R, and downwards, D.

Input

The first line of input consists of a single integer T ($1 \leq T \leq 100$), the number of test cases.
T lines follow, each of which is a test case consisting of two space-separated integers, R and D ($1 \leq R, D \leq 10^9$), specifying how far right and how far down the target dream is.

Output

Print, on a single line, the factor by which time slows down in the target dream.

Sample Input 1	Sample Output 1
2 3 2 5 8	9 71