

F - Dexter's Lazy Day at Lab

On an ordinary boring day at lab, Dexter was playing a maze solving game in his computer. The maze is like an $M \times N$ sized 2D grid. And Dexter has to find a way from the top left cell (starting position) to the bottom right cell avoiding obstacles.

While playing, Dexter suddenly found a level in the game where the grid contains no obstacles. “Wait.. what?? A maze with no obstacles!!”, he wondered.

Maybe it was just a mistake in the program. Then he realized, there will be multiple paths to reach the end position from the start. Can he find exactly how many such paths are there? Moreover, can you help him find it??

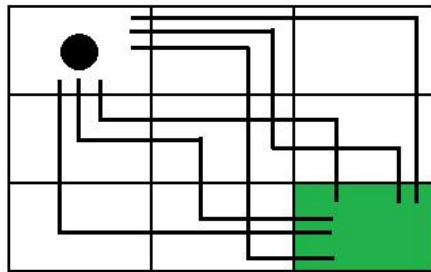


Figure shows all possible paths from the top left cell to the bottom right cell of a 3x3 grid. From a particular cell in the grid, Dexter can move either towards right or down.

Input

There will be $T(\leq 50)$ test cases.

Each case contains two integers M, N denoting the number of rows and columns in the grid.

(1 ≤ M, N ≤ 30)

Output

For each case, print the case number and a single integer showing total number of paths.

| Sample Input | Sample Output |
|--------------|---------------|
| 3 | Case 1: 1 |
| 1 1 | Case 2: 3 |
| 2 3 | Case 3: 6 |
| 3 3 | |