

FREE PATHS

Problem Statement:

Consider a block of m rows and n columns. At each step you can move one step to the right or one step to bottom or one step to bottom-right.

i.e. if you are currently at (x,y) : x -row, y -column

u can either move to $(x,y+1)$ or $(x+1,y)$ or $(x+1,y+1)$

You've to find the number of possibilities to reach the point (A,B) from $(0,0)$.

Unluckily you cannot step into some places where bombs are placed denoted by "@".

Input:

The first line consists of 2 integers m and n denotes the number of rows and columns.

Then the description of the $m \times n$ block is given.

('0'- if the path is free to move and '@'-if the path has bombs and u cannot move to that place)

Then an integer t follows which denotes the number of test cases.

Then for next t lines each line consists of 2 integers A and B .

Output:

For each test case print the number of possibilities of reaching (A,B) from $(0,0)$ in separate lines.

Input Constraints:

$2 \leq m \leq 10$

$2 \leq n \leq 10$

$m > A \geq 0$

$n > B \geq 0$

EXAMPLE:

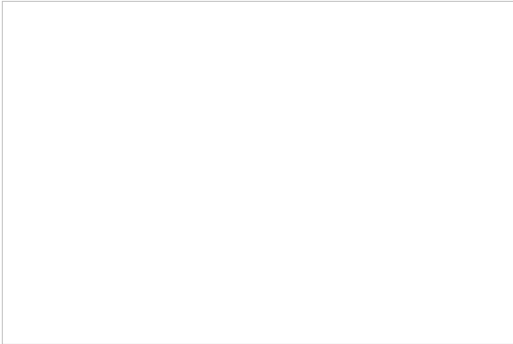
SAMPLE INPUT:

```
3 6
000@@@
@@00@@
@@000@
8
0 1
0 4
1 3
2 3
2 4
1 2
2 2
2 5
```

SAMPLE OUTPUT:

1
0
3
7
10
2
2
0

EXPLANATION OF THE TESTCASE:



From the figure clearly u can see that there are 3 paths to (1,3), 7 paths to (2,3), 10 paths to (2,4) and so..

Note: if u can't see the image clearly goto the following link:

https://docs.google.com/uc?id=0B0rk3iRD6D_JYjAxMzAxNTEtYjU3YS00OWVhLWEyNzgtOWUzN2NmMmRmZDJh&export=download&authkey=CK-7vYol&hl=en_US