

Matrix Tracing

A word from the English dictionary is taken and arranged as a matrix. e.g. "MATHEMATICS"

```
MATHE
ATHEM
THEMA
HEMAT
EMATI
MATIC
ATICS
```

There are many ways to trace this matrix in a way that helps you construct this word. You start tracing the matrix from the top-left position and at each iteration, you either move RIGHT or DOWN, and ultimately reach the bottom-right of the matrix. It is assured that any such tracing generates the same word. How many such tracings can be possible for a given word of length $m+n-1$ written as a matrix of size $m \times n$?

Input Format

The first line of input contains an integer T . T test cases follow.
Each test case contains 2 space separated integers m & n (in a new line) indicating that the matrix has m rows and each row has n characters.

Constraints

$1 \leq T \leq 10^3$
 $1 \leq m, n \leq 10^6$

Output Format

Print the number of ways (S) the word can be traced as explained in the problem statement. If the number is larger than 10^9+7 ,
print $S \bmod (10^9 + 7)$ for each testcase (in a new line).

Sample Input

```
1
2 3
```

Sample Output

```
3
```

Explanation

Let's consider a word AWAY written as the matrix

```
AWA
WAY
```

Here, the word AWAY can be traced in 3 different ways, traversing either RIGHT or DOWN.

```
AWA
Y

AW
AY

A
```

Hence the answer is 3.

Timelimit Time limit for this challenge is given [here](#)