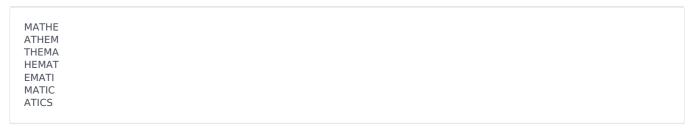
Matrix Tracing



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



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 * 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

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

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 $S \mod (10^9 + 7)$ for each testcase (in a new line).

Sample Input

1 23

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
WAY

Timelimit Time limit for this challenge is given here