**nCr**

**Medium**

Given two integers n and r, find nCr.Since the answer may be very large, calculate the answer modulo 109+7.

**Example 1:**

**Input:** n = 3, r = 2

**Output:** 3

**Explaination:** 3C2 = 3.

**Example 2:**

**Input:** n = 2, r = 4

**Output:** 0

**Explaination:** r is greater than n.

//{ Driver Code Starts

// Initial Template for Java

import java.io.\*;

import java.lang.\*;

import java.util.\*;

class CodingMaxima{

public static void main(String args[])throws IOException

{

BufferedReader in = new BufferedReader(new InputStreamReader(System.in));

int t = Integer.parseInt(in.readLine());

while(t-- > 0){

String read[] = in.readLine().trim().split("\\s+");

int n = Integer.parseInt(read[0]);

int r = Integer.parseInt(read[1]);

Solution ob = new Solution();

System.out.println(ob.nCr(n, r));

}

}

}

// } Driver Code Ends

// User function Template for Java

class Solution{

static int nCr(int n, int r)

{

if(r>n)

return 0;

r=n-r<r ? n-r:r;

int[] dp=new int[r+1];

dp[0]=1;

for(int i=0;i<=n;i++){

for(int j=Math.min(i, r);j>0;j--){

dp[j]=(dp[j]+ dp[j-1])%1000000007;

}

}

return dp[r];

}

}