Dr. Sheldon cooper and Pseudo code

You know Dr. Sheldon cooper!! He is brilliant physicists. He always try to invent new things and establish new theory. Today he has written a new pseudo code for his new theory.

pseudo code

{

   take two integers **x** and **n**

   let **ans:=1**

   for i = 1 to n:

   ans:=ans*x

   let **ans: = ans MODULO (10^{18}+7)**

}

But Dr. Sheldon cooper suddenly realized that, this is not optimized code. It takes too much time for providing correct answer. So he needs a better code for his work.

As a programmer you can help Dr. Sheldon cooper. You should write a code that gives the correct answer in efficient time.

Input:

The first line of the input contains an integer T ( ) denoting the number of test cases. Each test case contain two space separated integer x and n. ($0 \leq x,n \leq 10^{18}$)

Output:

For each case, print the case number and the desired answer. And remember that answer should be modulo of (10^{18}+7).

Sample:

Input	Output
3 2 3 5 3 10 5	Case 1: 8 Case 2: 125 Case 3: 100000

Authored By: Tanvir Hasan Anick