

# Tree

**Z15** lives in a strange planet. He wants to be best competitive programmer of his planet. Now he is learning data structure. Today his teacher, named **Mr. Y**, is teaching **M**-tree. In his planet, **M**-tree is defined as a tree, in which every parent has **m** child. After completion of teaching, **Z15** has been given a task. Given **m** and number of level (**l**) the tree contains, what is the total number of node in that tree?

## Input:

Input set starts with an integer ( $T \leq 1,00,000$ ), denoting the test case. Then **T** test case follows.

Each case starts with two integer ( $1 \leq m \leq 1,00,000$  and  $1 \leq l \leq 1,00,000$ )

## Output:

For each case print case number and total number of nodes the tree can have. As the answer can be very large, print the answer modulo 1,000,000,007.

Input	Output
3	Case 1: 31
2 4	Case 2: 341
4 4	Case 3: 15
2 3	