# Permutation Problem

How many n-digit numbers (without leading zeros) are there such that no digit occurs more than k times?

As the count of such n-digit numbers can be very large, print the answer mod ($10^9$+7)

**Input Format**

The first line contains an integer, $T$ , the number of test cases. This is followed by $T$ lines each containing 2 space separated integers, $n$ and $k$

**Constraints**

$T \leq 100000$
$1 \leq n \leq 1000$
$1 \leq k \leq 10^9$

**Sample Input**

```
2
2 3
2 1
```

**Sample Output**

```
90
81
```

**Explanation**
Case 1: A number can appear three times. So we have 9 (all except 0) numbers for first digit and 10 numbers for the second digit.
Case 2: A number can appear only once. So we have 9 choices for the first digit and 9(all except the first one) for the second digit.