I All Your Bases Belong to us

Input	Standard Input
Output	Standard Output

It is very easy to find number of trailing zero in $n!$ for a particular base b. In this problem you have to do the reverse. You have to find for how many bases b, $n!$ has k trailing zeros in base b.

Input

Input starts with a positive number $T \leq 10000$, denoting the number of test cases to follow.

Each test case contains two non-negative integers, $n \leq 10^{15}$ and $1 \leq k \leq 10^{15}$ in a line. You may assume and $n/k < 500$.

Output

For each input output one line containing the number of different bases. Print the solution **modulo 1000000007**

Sample Input	Sample Output
5 10 2 10 3 10 4 10 5 10 8	Case 1: 24 Case 2: 0 Case 3: 4 Case 4: 0 Case 5: 1