

Champernowne Count

Problem ID: champernownecount

Time limit: 1 second

The n th Champernowne word is obtained by writing down the first n positive integers and concatenating them together. For example, the 10th Champernowne word is “12345678910”.

Given two positive integers n and k , count how many of the first n Champernowne words are divisible by k .

Input

The single line of input contains two integers, n ($1 \leq n \leq 10^5$) and k ($1 \leq k \leq 10^9$).

Output

Output a single integer, which is a count of the first n Champernowne words divisible by k .

Sample Input 1	Sample Output 1
4 2	2
Sample Input 2	Sample Output 2
100 7	14
Sample Input 3	Sample Output 3
314 159	4
Sample Input 4	Sample Output 4
100000 999809848	1