homework7.1 String Splitting

Description

Given a string s consisting of numerical digits(0~9), you can split it into several non-empty substrings, provided that each substring is a multiple of m(leading zeros are allowed). What is the maximum number of substrings you can get?

For example, assume that s="001363042724" and m=4.

you can split it into "00136", "3042724", and there are two substrings.

if you don't split, there is only one substring.

An optimal solution is to split the string into "0", "0", "136", "304", "272", "4", and the answer is 6.

Input Format

The first line contains an integer $T(1 \leq T \leq 100)$, which is the number of test cases.

Each test case contains two lines : the length of the string $n(2 \leq n \leq 10^3)$ and the divisor $m(2 \leq m \leq 10^3)$ in the first line, and the string consisting of digits in the second line.

It is guaranteed that the string is a multiple of m.

Output Format

For each test case, output the answer in a separate line.

Sample Input	Sample Output
1 12 4 001363042724	6

3 7 3 6792639 5 4 75024 3 4 852	5 1 2
3 5 13 58006 11 7 68795937245 5 14 87220	1 3 2

Hint