We are given a sequence of n decimal digits. The sequence needs to be partitioned into one or more contiguous subsequences such that each subsequence, when interpreted as a decimal number, is divisible by a given integer m.

Find the number of different such partitions modulo 10^9+7. When determining if two partitions are different, we only consider the locations of subsequence boundaries rather than the digits themselves, e.g. partitions 2|22 and 22|2 are considered different.

Input

The input file contains several test cases, each of them as described below.

The first line contains two integers n and m ($1 \leq n \leq 300000$, $1 \leq m \leq 1000000$) — the length of the sequence and the divisor respectively. The second line contains a string consisting of exactly n digits.

Output

For each test case, output a single integer — the number of different partitions modulo $10^9 + 7$ on a line by itself.

Sample Input

```
4 2
1246
4 7
2015
```

Sample Output

```
4
0
```