Problem F. Ada and Spring Cleaning

Time limit	1000 ms
Mem limit	1572864 kB
Code length Limit	50000 B
OS	Linux

Ada the Ladybug has decided to do some "Spring Cleaning". As you might know, she keeps a TODO list. She is very sparing so she keeps all her activities as one string. You might get very confused while reading the string but she has a system - every activity has length exactly **K** characters. Sadly, as new activities were added to the list many duplicities appeared. Now it is time to find out how many **unique** activities are in her TODO list.

Input

First line contains **T**, number of test-cases.

Each test-case begins with **N, K, $1 \leq K \leq N \leq 10^5$**, length of string and length of activities respectively.

Next line consists of string of length **N**, consisting of lowercase letters.

The sum of lengths of strings among all test-cases won't exceed **$3*10^5$**

Output

For each test-case, print the number of unique substrings of length **K**

Example Input

```
5
3 2
aaa
5 1
abcba
4 2
abac
10 2
abbaaaabba
7 3
dogodog
```

Example Output

1
3
3
4
4