

DMPG '18 B5 - Mimi and Substrings

Time limit: 1.8s **Memory limit:** 256M

Mimi is playing with a string S when her little sister asks her a question:

How many substrings of S are there such that these substrings are of length K and have exactly 1 distinct letter?

Constraints

Let $|S|$ denote the length of S .

For all subtasks:

$$1 \leq K \leq |S|$$

Subtask 1 [10%]

$$1 \leq |S| \leq 2\,000$$

Subtask 2 [90%]

$$1 \leq |S| \leq 1\,000\,000$$

Input Specification

The first line of input will contain a single string, S , consisting of only lowercase English letters.

The second line of input will contain an integer, K .

Output Specification

The number of substrings which satisfy the given condition.

Sample Input

```
aaaabb  
2
```

Sample Output

```
4
```