COMP6047 - Algorithm and Programming

Session 4 – Program Control: Repetition

Case 1 – Repeated String

Problem Statement

Lilah has a string, **s**, of lowercase English letters that she repeated infinitely many times.

Given an integer, **n**, find and print the number of letter a's in the first n letters of Lilah's infinite string.

For example, if the string **s='abcac'** and **n=10**, the substring we consider is **abcacabcac**, the first **10** characters of her infinite string. There are **4** occurrences of a in the substring.

Format Input

The first line contains a single string, s.

The second line contains an integer, n.

Format Output

Print a single integer denoting the number of letter a's in the first **n** letters of the infinite string created by repeating **s** infinitely many times.

Constraints

- $1 \leq |s| \leq 100$
- $1 \leq n \leq 10^2$

Test Case

Sample Input	**Sample Output**
aba 10	7
a 1000000000000	1000000000000