Problem A. Repeated String

OS Linux

There is a string, s, of lowercase English letters that is repeated infinitely many times. Given an integer, n, find and print the number of letter `a` 's in the first n letters of the infinite string.

Example
$s =$ 'abcac'
$n = 10$

The substring we consider is $abcacabcac$, the first 10 characters of the infinite string. There are 4 occurrences of `a` in the substring.

Function Description

Complete the *repeatedString* function in the editor below.

repeatedString has the following parameter(s):

- *s:* a string to repeat
- *n:* the number of characters to consider

Returns

- *int:* the frequency of `a` in the substring

Input Format

The first line contains a single string, s.
The second line contains an integer, n.

Constraints

- $1 \leq |s| \leq 100$
- $1 \leq n \leq 10^{12}$
- For 25% of the test cases, $n \leq 10^6$.

Sample Input

Sample Input 0

```
aba
10
```

Sample Output 0

```
7
```

Explanation 0

The first $n = 10$ letters of the infinite string are `abaabaabaa`. Because there are 7 `a`'s, we return 7.

Sample Input 1

```
a
1000000000000
```

Sample Output 1

```
1000000000000
```

Explanation 1

Because all of the first $n = 1000000000000$ letters of the infinite string are `a`, we return 1000000000000.