



All Domains &gt; Algorithms &gt; Implementation &gt; Repeated String

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# Repeated String

by tunyash

Problem

Submissions

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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.

## 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,  $n \leq 10^6$ .

## Output Format

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.

## 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 print 7 on a new line.

## 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 print 1000000000000 on a new line.

[f](#) [t](#) [in](#)

Submissions: 12212



Max Score: 20



Difficulty: Easy

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Current Buffer (saved locally, editable)  

C#  

```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7     static void Main(String[] args) {
8         string s = Console.ReadLine();
9         long n = long.Parse(Console.ReadLine());
10
11         //string s = "a";
12         //long n = 1000000000000;
13
14         //string s = "aab"; //588525
15         //long n = 882787;
16
17         //string s = "aba";
18         //long n = 10;
19
20         //string s = "afcffaged"; //192529151691
21         //long n = 962645758455;
22
23         //long count = 0;
24
25         //string s =
26         "bcbccacaacbbacabcbccacbccbababbbbabccbbcbccaccababcbcbcaabbbbaabbbcaabbbbbbabcbcbccaccbcccaabacbbacbc";
27         //long n = 649606239668; //162401559918
28
29         int a_s = s.Count(e => e == 'a');
30
31         long cantidad_s = n / s.Length;
32
33         long sobra = n % s.Length; // s.Length - ((s.Length * Math.Ceiling(cantidad_s)) - n);
34         // Console.WriteLine(sobra);
35
36         Console.WriteLine((long)((long)(cantidad_s * a_s)
37             + (s.Substring(0, (int)sobra).Count(e => e == 'a'))));
38
39
40
41     }
42 }
43
```

Line: 25 Col: 54

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code

### Congrats, you solved this challenge!

✓ Test Case #0  
✓ Test Case #3  
✓ Test Case #6  
✓ Test Case #9  
✓ Test Case #12  
✓ Test Case #15  
✓ Test Case #18  
✓ Test Case #21

✓ Test Case #1  
✓ Test Case #4  
✓ Test Case #7  
✓ Test Case #10  
✓ Test Case #13  
✓ Test Case #16  
✓ Test Case #19  
✓ Test Case #22

✓ Test Case #2  
✓ Test Case #5  
✓ Test Case #8  
✓ Test Case #11  
✓ Test Case #14  
✓ Test Case #17  
✓ Test Case #20

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