



Repeated String ★

164 more points to get your gold badge!

Rank: 324041 | Points: 686/850



Your Repeated String submission got 20.00 points.

Share

Post



You are now 164 points away from the gold level for your problem solving badge.

[Try the next challenge](#) | [Try a Random Challenge](#)

Problem

Submissions

Leaderboard

Editorial

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

 $s = \text{'abcac'}$ $n = 10$

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

10000000000000

Explanation 1

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

[Change Theme](#)

Language

C++14



```
14  ^ 2. LONG_INTEGER II
15  */
16
17  long repeatedString(string s, long n) {
18      long ans = 0 ;
19      int noofA = 0;
20
21      for(char& chr : s) {
22          if(chr == 'a') {
23              noofA++;
24          }
25      }
26
27      long full = n / s.size() ;
28      long partial_r = n % s.size() ;
29      ans = noofA * full ;
30
31      for(int i = 0 ; i < partial_r ; i++) {
32          if(s[i] == 'a') {
33              ans++;
34          }
35      }
36
37      return ans;
38  }
39
40
41  int main()
42  {
43      ofstream fout(getenv("OUTPUT_PATH"));
44  }
```

Line: 35 Col: 6

Upload Code as File

☐ Test against custom input

Run Code

Submit Code

You have earned 20.00 points!

You are now 164 points away from the gold level for your problem solving badge.

56%

686/850



Congratulations

You solved this challenge. Would you like to challenge your friends?

[Next Challenge](#)

Test case 0

Compiler Message

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Success

Input (stdin)

1

aba

2

10

Expected Output

1

7

Download

Download