Repeated String ☆

Your Repeated String submission got 20.00 points. Share Tweet

Proceed to Interview Preparation Kit

Problem Submissions Leaderboard Editorial

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 $s = \text{'abcac'}$ 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.

Function Description

Complete the repeatedString function in the editor below. It should return an integer representing the number of occurrences of a in the prefix of length n in the infinitely repeating string.

repeatedString has the following parameter(s):

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

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.

Python 3

```
#!/bin/python3

import math
import os
import random
import re
import sys

# Complete the repeatedString function below.
def repeatedString(s, n):
    total=0
    total=((n//len(s))*s.count("a")) + (s[:n%len(s)].count("a"))
    #print(total)
    return total

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    s = input()

    n = int(input())

    result = repeatedString(s, n)

    fptr.write(str(result) + '\n')
```

```
26
27      fptr.close()
28
```

Line: 28 Col: 1

Upload Code as File Test against custom input Run Code Submit Code

You have earned 20.00 points!

These points will also count towards your progress in the Problem Solving Badge.

50% 65/100

Congratulations

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

Proceed

Test case 0 ✓
Test case 1 ✓
Test case 2 ✓
Test case 3 ✓
Test case 4 ✓
Test case 5 ✓
Test case 6 ✓

Compiler Message

Success

Input (stdin) Download

```
aba
10
```

Expected Output Download

```
7
```

Contest Calendar | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature