



All Domains &gt; Algorithms &gt; Strings &gt; Caesar Cipher

Badge Progress [\(Details\)](#)

Points: 1119.09 Rank: 17816

# Caesar Cipher

by vatsalchanana

Problem

Submissions

Leaderboard

Discussions

Editorial

Julius Caesar protected his confidential information by encrypting it in a cipher. Caesar's cipher rotated every letter in a string by a fixed number,  $K$ , making it unreadable by his enemies. Given a string,  $S$ , and a number,  $K$ , encrypt  $S$  and print the resulting string.

**Note:** The cipher *only* encrypts letters; symbols, such as `-`, remain unencrypted.

## Input Format

The first line contains an integer,  $N$ , which is the length of the unencrypted string.

The second line contains the unencrypted string,  $S$ .

The third line contains the integer encryption key,  $K$ , which is the number of letters to rotate.

## Constraints

$$1 \leq N \leq 100$$

$$0 \leq K \leq 100$$

$S$  is a valid ASCII string and doesn't contain any spaces.

## Output Format

For each test case, print the encoded string.

## Sample Input

```
11
middle-Outz
2
```

## Sample Output

```
okffng-Qwvb
```

## Explanation

Each unencrypted letter is replaced with the letter occurring  $K$  spaces after it when listed alphabetically. Think of the alphabet as being both case-sensitive and circular; if  $K$  rotates past the end of the alphabet, it loops back to the beginning (i.e.: the letter after  $z$  is  $a$ , and the letter after  $Z$  is  $A$ ).

## Selected Examples:

$m$  (ASCII 109) becomes  $o$  (ASCII 111).

$i$  (ASCII 105) becomes  $k$  (ASCII 107).

`-` remains the same, as symbols are not encoded.

$O$  (ASCII 79) becomes  $Q$  (ASCII 81).

$z$  (ASCII 122) becomes  $b$  (ASCII 98); because  $z$  is the last letter of the alphabet,  $a$  (ASCII 97) is the next letter after it in lower-case rotation.

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

Submissions: 34818

Max Score: 15

Difficulty: Easy

Rate This Challenge:

☆☆☆☆☆

[More](#)

Current Buffer (saved locally, editable)

C#



1 using System;

```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7
8     static string Caesar(string text, int shift)
9     {
10         string alfab = "abcdefghijklmnopqrstuvwxyz";
11         string mayus = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";
12
13         shift = shift % 26;
14
15         string ans = "";
16         for (int i = 0; i < text.Length; i++)
17         {
18             // ans += (alfab.IndexOf(text[i]) + shift).ToString().ToUpper();
19             //ans += alfab[ text.IndexOf(i)+shift];
20             if (char.IsLetter(text[i]))
21             {
22                 if (char.IsUpper(text[i]))
23                 {
24                     int indmayus = mayus.IndexOf(text[i]);
25                     ans += mayus[indmayus + shift].ToString();
26                 }
27                 else
28                 {
29                     int indalfab = alfab.IndexOf(text[i]);
30                     ans += alfab[indalfab + shift].ToString();
31                 }
32             }
33             else
34             {
35                 ans += text[i];
36             }
37         }
38         return ans;
39     }
40
41     static void Main(string[] args)
42     {
43         //int n = 11;
44         //string s= "middle-Outz";
45         //int k = 2;
46
47         int n = int.Parse(Console.ReadLine());
48         string s = Console.ReadLine();
49         int k = int.Parse(Console.ReadLine());
50
51         Console.WriteLine(Caesar(s, k));
52
53         // Console.ReadLine();
54     }
55 }
56
57 }
```

Line: 60 Col: 10

 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 #1

✓ Test Case #4

✓ Test Case #7

✓ Test Case #10

✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

Next Challenge

Copyright © 2016 HackerRank. All Rights Reserved

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.

[Contest Calendar](#) | [Interview Prep](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)

