

[All Domains](#) > [Algorithms](#) > [Strings](#) > Caesar Cipher

# 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.

[in](#) [twitter](#) [facebook](#)

Submissions: 32597

Max Score: 15

Difficulty: Easy

Rate This Challenge:

[More](#)

Python 3



```
1 #!/bin/python3
2
3 import sys
4
5
6 n = int(input().strip())
7 s = input().strip()
8 k = int(input().strip())
9
```

Line: 1 Col: 1

[Upload Code as File](#)

Test against custom input

Run Code

Submit Code

Copyright © 2016 HackerRank. All Rights Reserved

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.[Contest Calendar](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)