# Problem 2 – Simple Cipher

### In this task we will be using very simple encryption to protect our confidential information by encrypting it in a cipher. This cipher rotates every letter in a string by a fixed number making it unreadable. Given a string and a number encrypt and print the resulting string.

### Input

The input will be read from an **HTTP GET** **request** holding parameters named **string** and **key**.

* **string** - contains the unencrypted string.
* **key** - contains the integer encryption key, which is the number of letters to rotate.

### Output

For each test case, print the encoded string.

### Note

The cipher only encrypts letters. Symbols, such as **-**, remain unencrypted.

### Constraints

* **string** is a valid ASCII string and doesn't contain any spaces.
* Length of the string will be in range [1...100] characters.
* Encryption key will be in range [1...100].
* Allowed working time for your program: 0.2 seconds. Allowed memory: 16 MB.

### Explanation

Each unencrypted letter is replaced with the letter occurring, **"key",** spaces after it when listed alphabetically. Think of the alphabet as being both case-sensitive and circular. If, **"key",** 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

Suppose **2** as encryption key.

**"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.

### Examples

|  |  |
| --- | --- |
| **Input** | |
| string | zibxle-SutFA |
| key | 3 |
| **Output** | |
| cleaoh-VxwID | |

|  |  |
| --- | --- |
| **Input** | |
| string | HNbltpuk |
| key | 4 |
| **Output** | |
| LRfpxtyo | |

|  |  |
| --- | --- |
| **Input** | |
| string | TilxlM-pFt |
| key | 6 |
| **Output** | |
| ZordrS-vLz | |