Problem Cipher

Input File: CipherIn.txt
Output File: CipherOut.txt
Project File: Cipher

Your little brother Ryan, as younger siblings often do, has been teasing you. To make things worse, he has also been reading your mail. For this reason you have nicknamed him "the beast". You can tolerate the teasing but you can no longer allow "the beast" to read your mail; "the beast" must be tamed.

To control "the beast", you and your friends have agreed on an offset cipher code to encrypt your mail. Naturally, "the beast" will never be given the cipher code, in which each letter in the original message will have a unique replacement character. The replacement character will be the character in the ASCII table at a given integer offset from the original character. Thus, if the offset is -1, the character 'b' will be replaced with the character 'a'.

You are to write a program to generate the encrypted messages. Spaces and new lines will not be encrypted, and offsets will be chosen so that only the ASCII printable characters will appear in the encrypted message.

Inputs

The first line of the file will contain the integer offset. Subsequent lines will contain the message to be encrypted.

Outputs

The encrypted message containing the same number of lines as the un-encrypted message.

Sample input

-10

Hi Breanne,

How are you today? I do not think the beast will be able to read this message.
Your Grandfather is such a nice person and a great skier.

Love, Tom

Sample output

```
> 8h[Wdd["
```

```
>em Wh[ oek jeZWo5 ? Ze dej j^_da j^[ X[Wij m_bb X[ WXb[ je h[WZ j^_i c[iiW][$ Oekh =hWdZ\Wj^[h i ikY^ W d Y[ f]hied WdZ W ]h[Wj ia [h$
```

```
Bel["
Jec
```