

Important Mail

Time Limit: 1.0s **Memory Limit:** 256M

Fahri borrows Asli's computer to send an important email. But Asli warns him about the broken keyboard. Sometimes internally and automatically `Home` key (places the cursor at the beginning of the line) or `End` key (places the cursor at the end of the line) gets pressed.

What is asked from you is, given the order of the keystrokes, find how the email looks on the screen. While giving the order of the keystrokes, `Home` key is given with `[` and `End` key is given with `]`.

Input

The input line contains a string of length N consisting of lowercase ASCII characters, `[` and `]`.

Output

Print the text appearing on the screen.

Constraints

- $1 \leq N \leq 100000$

Examples

Input:

```
This is an important [email], please respond.
```

Output:

```
emailThis is an important , please respond.
```

Input:

```
[[[]]]I want to tell you something crucial.
```

Output:

I want to tell you something crucial.