

Problem B - Check the parentheses!

Description

You are given a string consisting of parentheses () and []. A string of this type is said to be correct:

- (a) if it is the empty string
- (b) if A and B are correct, AB is correct,
- (c) if A is correct, (A) and [A] is correct.

Write a program that takes a sequence of strings of this type and check their correctness. Your program can assume that the maximum string length is 128.

Input

The file contains a positive integer n and a sequence of n strings of parentheses () and [], one string a line.

Output

A sequence of Yes or No on the output file.

Example

Input:

```
3
([ ])
(( [ ( ) ] ))
([ ( ) [ ] ( ) ] ( )
```

Ouput:

```
Yes
No
Yes
```
