Validate!

All submissions
Best submissions

Read editorial

Points: 100 (partial)
Time limit: 0.3s
Memory limit: 64M
Author:
doncho

Tags
Recursion
Difficulty
Intermediate

Allowed languages
java

You are given paranthesis. A lot of them. And wildcards (*). Each wildcard can be replaced by openning or closing paranthesis or can be removed. You tasks is to say 'yes' or 'no' if an expression of paranthesis is valid.

An expression is valid, if:

- The count of opening and closing paranthesis is equal
- Each closing paranthesis must have a corresponding openning paranthesis
- Each openning paranthesis must have a corresponding closing paranthesis
- Opening paranthesis must be left of closing paranthesis

For more clarifications, see the examples below

Input

Read from the standard input

- On the first line, read the number N
  - This is the number of expressions to follow
- On each of the next N lines, find an expression of paranthesis and wildcards

Output

Print to the standard output

- On the N lines, print either 'yes' or 'no' if the expression is valid

Constraints

- 2 <= N <= 10
- The length of each expression will be at most 10

Sample tests

Input

Copy

```
2
()()
(*)
```

Output

Copy

```
yes
yes
```

Input

Copy

```
9
()()()()()
)(
(((**
*

***
**
(**)
****))
```

Output

Copy

```
yes
no
no
yes
yes
yes
yes
yes
yes
```

Notes

Line 5 (the empty string) is a valid paranthesis expression.

Comments

There are no comments at the moment.