DMOPC '17 Contest 2 P2 - Balance

> You were the Chosen One! You were supposed to destroy the Sith, not join them. You were supposed to bring balance to the Force, not leave it in darkness.

The Force, represented by the characters `(` and `)` is now unbalanced! The Force is *balanced* if it is one of the following:

- `()`
- `()A`, where A is balanced
- `A()`, where A is balanced
- `(A)`, where A is balanced

Kenobi can invert (i.e. turn a `(` character to `)`, or vice versa) **at most 1 character** in the Force. Given the sequence which represents the Force, print `YES` if Kenobi can balance it, and `NO` otherwise.

Input Specification

The input will contain a single string, S, the sequence which represents the Force.

Output Specification

`YES` if it can be balanced, and `NO` otherwise.

Constraints

For all subtasks, S will have an even number of characters

Subtask 1 [20%]

$2 \le |S| \le 1\,000$

Subtask 2 [80%]

$2 \le |S| \le 10^5$

Sample Input

```
()()((()
```

Sample Output

YES