

Problem 921: Minimum Add to Make Parentheses Valid

Problem Information

Difficulty: Medium

Acceptance Rate: 74.52%

Paid Only: No

Tags: String, Stack, Greedy

Problem Description

A parentheses string is valid if and only if:

- * It is the empty string,
- * It can be written as `AB` (`A` concatenated with `B`), where `A` and `B` are valid strings, or
- * It can be written as `(A)` , where `A` is a valid string.

You are given a parentheses string `s` . In one move, you can insert a parenthesis at any position of the string.

* For example, if `s = "())()"` , you can insert an opening parenthesis to be `"(**(**))()"` or a closing parenthesis to be `"(())***)**)"` .

Return _the minimum number of moves required to make_ `s` _valid_.

Example 1:

Input: s = "()" **Output:** 1

Example 2:

Input: s = "(((" **Output:** 3

Constraints:

* `1 <= s.length <= 1000` * `s[i]` is either `(` or `)`.

Code Snippets

C++:

```
class Solution {  
public:  
    int minAddToMakeValid(string s) {  
  
    }  
};
```

Java:

```
class Solution {  
public int minAddToMakeValid(String s) {  
  
}  
}
```

Python3:

```
class Solution:  
    def minAddToMakeValid(self, s: str) -> int:
```