2116. Check if a Parentheses String Can Be Valid

Description

A parentheses string is a non-empty string consisting only of '(' and ')'. It is valid if any of the following conditions is true:

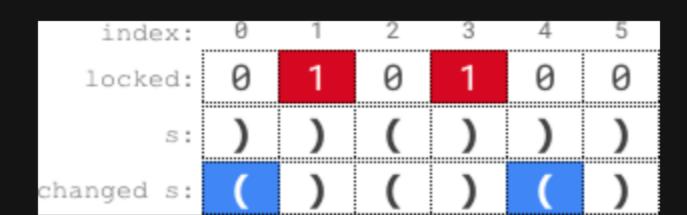
- It is ().
- It can be written as AB (A concatenated with B), where A and B are valid parentheses strings.
- It can be written as (A), where A is a valid parentheses string.

You are given a parentheses string s and a string locked, both of length n. locked is a binary string consisting only of '0' s and '1' s. For each index i of locked,

- If locked[i] is '1', you cannot change s[i].
- But if <code>locked[i]</code> is <code>'0'</code> , you can change <code>s[i]</code> to either <code>'('</code> or <code>')'</code> .

Return true if you can make s a valid parentheses string. Otherwise, return false.

Example 1:



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Input: s = "))()))", locked = "010100"
Output: true
Explanation: locked[1] == '1' and locked[3] == '1', so we cannot change s[1] or s[3].
We change s[0] and s[4] to '(' while leaving s[2] and s[5] unchanged to make s valid.
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Example 2:

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Input: s = "()()", locked = "0000"
Output: true
Explanation: We do not need to make any changes because s is already valid.
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Example 3:

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Input: s = ")", locked = "0"
Output: false
Explanation: locked permits us to change s[0].
Changing s[0] to either '(' or ')' will not make s valid.
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Constraints:

- n == s.length == locked.length
- 1 <= n <= 10 ⁵
- s[i] is either '(' or ')'.
- locked[i] is either '0' or '1'.