You have a string s that consists of English letters, punctuation marks, whitespace characters, and brackets. It is guaranteed that the parentheses in sform a <u>regular bracket sequence</u>. Your task is to reverse the strings contained in each pair of matching parentheses, starting from the innermost pair. The results string should not contain any parentheses.

## Example

```
For string s = "a(bc)de", the output should be reverseParentheses(s) = "acbde".

Input/Output
```

- [execution time limit] 0.5 seconds (cpp)
- [input] string s

A string consisting of English letters, punctuation marks, whitespace characters and brackets. It is guaranteed that parentheses form a *regular bracket sequence*.

Constraints: 5 ≤ s.length ≤ 55.

• [output] string