You are given a string s that consists of lower case English letters and brackets.

Reverse the strings in each pair of matching parentheses, starting from the innermost one.

Your result should **not** contain any brackets.

**Example 1:**

**Input:** s = "(abcd)"

**Output:** "dcba"

**Example 2:**

**Input:** s = "(u(love)i)"

**Output:** "iloveu"

**Explanation:** The substring "love" is reversed first, then the whole string is reversed.

**Example 3:**

**Input:** s = "(ed(et(oc))el)"

**Output:** "leetcode"

**Explanation:** First, we reverse the substring "oc", then "etco", and finally, the whole string.

**Example 4:**

**Input:** s = "a(bcdefghijkl(mno)p)q"

**Output:** "apmnolkjihgfedcbq"

**Constraints:**

* 0 <= s.length <= 2000
* s only contains lower case English characters and parentheses.
* It's guaranteed that all parentheses are balanced.