

1.Easy\01.Remove_outer_parenthesis.cpp

```
1  /*
2  Question:
3  Given a valid parentheses string `s`, remove the outermost parentheses of every primitive
   string in the primitive decomposition of `s`.
4
5  Approach:
6  - We can iterate through the characters of the string and keep track of the number of open
   parentheses encountered.
7  - Whenever we encounter an opening parenthesis, if the count of open parentheses is greater
   than 0, we append it to the result string.
8  - When we encounter a closing parenthesis, we decrement the count of open parentheses and
   append it to the result string only if the count is greater than 1.
9
10 Code:
11 */
12 string removeOuterParentheses(string s) {
13     string res;
14     int opened = 0;
15
16     for (auto c : s) {
17         if (c == '(') {
18             if (opened > 0)
19                 res += c;
20             opened++;
21         } else {
22             if (opened > 1)
23                 res += c;
24             opened--;
25         }
26     }
27
28     return res;
29 }
30 /*
31 Time Complexity: O(N), where N is the length of the input string `s`.
32 Space Complexity: O(N), where N is the length of the input string `s`.
33 */
```