

2.Medium\02.Max_nesting_depth_of_parenthesis.cpp

```
1  /*
2  Question:
3  Given a VPS represented as a string s, return the nesting depth of s.
4
5  Approach:
6  1. Initialize `opened` as 0 and `ans` as 0 to keep track of the number of opened parentheses
   and the maximum nesting depth respectively.
7  2. Iterate through each character `c` in the string `s`.
8     a. If `c` is an opening parenthesis '(', increment `opened` by 1 and update `ans` if it
   is greater than the current value of `ans`.
9     b. If `c` is a closing parenthesis ')', decrement `opened` by 1.
10 3. Return `ans` as the maximum nesting depth.
11
12 CODE:-
13
14 */
15
16 int maxDepth(string s) {
17     int opened = 0, ans = 0;
18     for (auto c : s) {
19         if (c == '(') {
20             opened++;
21             ans = max(ans, opened);
22         } else if (c == ')') {
23             opened--;
24         }
25     }
26     return ans;
27 }
28
29 /*
30 Time Complexity: O(n), where n is the length of the string `s`.
31 Space Complexity: O(1)
32 */
```