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# Balanced Brackets

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Submitted a few seconds ago • Score: 1.00

Status: **Accepted**

|   |               |   |               |   |               |
|---|---------------|---|---------------|---|---------------|
| ✓ | Test Case #0  | ✓ | Test Case #1  | ✓ | Test Case #2  |
| ✓ | Test Case #3  | ✓ | Test Case #4  | ✓ | Test Case #5  |
| ✓ | Test Case #6  | ✓ | Test Case #7  | ✓ | Test Case #8  |
| ✓ | Test Case #9  | ✓ | Test Case #10 | ✓ | Test Case #11 |
| ✓ | Test Case #12 | ✓ | Test Case #13 | ✓ | Test Case #14 |
| ✓ | Test Case #15 | ✓ | Test Case #16 | ✓ | Test Case #17 |
| ✓ | Test Case #18 | ✓ | Test Case #19 | ✓ | Test Case #20 |

## Submitted Code

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Language: C++

 Open in editor

```
1 #include<string.h>
2 #include<stdio.h>
3 // #include<iostream.h>
4 #include<bits/stdc++.h>
5 using namespace std;
6
7 bool is_balanced(string expression) {
8     vector<char> s; // Use a stack to keep track of opening brackets
9     for(int i = 0; i < expression.size(); i++) {
10         if(expression[i] == '{' || expression[i] == '[' || expression[i] == '(') {
11             s.push_back(expression[i]);
12         } else {
13             // Pop the top of the stack and make sure the brackets match
14             if(s.size() == 0) {
15                 return false;
16             }
17             char c = s.back();
18             s.pop_back();
19             if(c == '{' && expression[i] != '}') {
20                 return false;
21             }
22             if(c == '(' && expression[i] != ')') {
23                 return false;
24             }
25             if(c == '[' && expression[i] != ']') {
26                 return false;
27             }
28         }
29     }
30     if(s.size() == 0) {
31         return true;
```

```
32     } else {
33         return false;
34     }
35 }
36
37 int main(){
38     int t;
39     cin >> t;
40     for(int a0 = 0; a0 < t; a0++){
41         string expression;
42         cin >> expression;
43         bool answer = is_balanced(expression);
44         if(answer)
45             cout << "YES\n";
46         else cout << "NO\n";
47     }
48     return 0;
49 }
```