

<https://course.acciojob.com/idle?question=1aa085e1-e5c3-400b-851d-dbd9f70fa19d>

● EASY

● Max Score: 30 Points

PARENTHESIS CHECKER

Given an expression string s . Examine whether the pairs and the orders of “{”, “}”, “(”, “)”, “[”, “]” are correct in s .

For example, the function should return true for $s = "[()]\{()()}"$ and false for $s = "[()]"$

Input Format

Line 1: contains a string s .

Output Format

Print "1" if the given string is balanced otherwise print "0" (without quotes).

Example 1

Input

```
{ ([ ] ) }
```

Output

1

Explanation

{ ([]) }, same designed brackets can form balanced pairs, with 0 number of unbalanced bracket.

Example 2

Input

```
()
```

Output

```
1
```

Explanation

`()`, same bracket can form balanced pairs, and here only 1 type of bracket is present and in balanced way.

Expected Time Complexity: $O(|s|.length())$

Expected Space Complexity: $O(|s|.length())$

Constraints

$1 \leq s.length() \leq 1000$

Topic Tags

- **Stacks**

My code

// in java

```
import java.util.*;  
import java.lang.*;  
import java.io.*;
```

```
public class Main
```

```

{
    public static void main (String[] args) throws java.lang.Exception
    {
        Scanner sc= new Scanner(System.in);
        String s=sc.nextLine();

        int a=0;
        int b=0;
        int c=0;

        for(int i=0;i<s.length();i++)
        {
            if(s.charAt(i)=='{')
            {
                a++;
            }
            if(s.charAt(i)=='}')
            {
                a--;
            }
            if(s.charAt(i)=='(')
            {
                b++;
            }
            if(s.charAt(i)==')')
            {

```

```

        b--;
    }
    if(s.charAt(i)=='[')
    {

        c++;
    }
    if(s.charAt(i)==']')
    {

        c--;
    }

}

if(a==0&&b==0&&c==0)
{
    System.out.print(1);
}
else if(a!=0||b!=0||c!=0)
System.out.print(0);

}
}

/*import java.util.*;
import java.lang.*;
import java.io.*;

```

//test case wrong

```
public class Main
{
    public static void main (String[] args) throws java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);

        String str=s.next();
        int n=str.length();
        if(str=="")//for null string
        {
            System.out.print("0");
            return;
        }
        if(str.length()%2==1)//not balleced odd length
        {
            System.out.print("0");
            return;
        }
        Stack<Character> stk=new Stack<>();
        for(int i=0;i<str.length();i++)
        {
            // System.out.print(str.charAt(i));
            if(str.charAt(i)=='(' || str.charAt(i)=='{' || str.charAt(i)=='[')
                stk.push(str.charAt(i)) ;//System.out.print("hi ");
            else if(stk.empty()!=true)
            {
                if((str.charAt(i)=='') && (stk.peek()=='(')) stk.pop();
```

```
        else if((str.charAt(i)=='}' )&&( stk.peek()=='{' )stk.pop());
        else if((str.charAt(i)==']' )&& (stk.peek()=='[')) stk.pop();
    }
    else
    {
        System.out.print("0");
        return;
    }
}
boolean p=stk.empty();
if (p==true) System.out.print("1");
else System.out.print("0");

}

}*/
```