## horizontal line

## **Maximum Depth of Consecutive Parenthesis**

# **Problem Statements :**

You are given a string having parenthesis like “( ((X)) (((Y))) )”. We need to find the maximum depth of balanced parenthesis. Like 4 in given examples as ‘Y’ is surrounded by 4 balanced parenthesis.

If parenthesis are unbalanced then print -1.

# **Input Format :**

First line contains integer t which is number of test case.

For each test case, it contains a string.

**Constraints :**

1<=t<=100

1<=n<=1000

**Output Format :**

Print the maximum depth of balanced parenthesis for each test case.

# **Sample Input :**

3

(((X))(((Y))))

(p((q))((s)t))

b)(c)()

**Sample Output :**

4

3

-1

**Explanation :**

**Time Limit :**

1 sec.