InfyTQ SET 003

Solved Challenges **2/5**

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Evaluate Expression

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InfyTQ

The program must accept a string **S** representing a mathematical expression as the input. The program must evaluate and print the result **R** as the output.

Input Format:
The first contains S.

Output Format:
The first line contains an integer representing the result R.

Example Input/Output 1:
Input:
((4+6)*(15/5))+100

Output:
130

Example Input/Output 2:
Input:
(10/3)*(5+4)

Output:
30

Example Input/Output 3:
Input:
100-(12/5)

Output:
97

Max Execution Time Limit: 500 millisecs

Ambiance

Python3 (3.x)

Reset

```
Str = input().strip()
Str+="."

S=[]
index=0
num=""
while(index<len(Str)):
    sym=Str[index]
    if((Str[index]>="0" and Str[index]<="9")):
        num+=Str[index]
    else:
        if(num!=""):
            S.append(num)
        S.append(sym)
        num=""
    index+=1

# print(S)

stack = []
exp=""
for sym in S:
    if(sym==")"):

        while (stack[-1]!="("):
            exp+=stack.pop()
        stack.pop()

        # print(exp)
        ans = eval(exp)
        if("/" in exp):
            ans = 1/ans
        if("-" in exp):
            ans =-ans
        # print(ans)

        stack.append(str(ans))
        ans=0
        exp=""
        # print(stack)
        continue
    stack.append(sym)
    # print(stack)

fi=""
for final in stack[:-1]:
    fi+=final

print(int(eval(fi)))


```

Code did not pass the execution

Your Program Output:

```
['(']
['(', '541']
['(', '541', '-']
['(', '541', '-', '(']
['(', '541', '-', '(', '1523']
['(', '541', '-', '(', '1523', '/']
['(', '541', '-', '(', '1523', '/', '53']
['(', '541', '-', '28.735849056603772']
['512.2641509433962']
['512.2641509433962', '+']
['512.2641509433962', '+', '(']
['512.2641509433962', '+', '(', '7']
['512.2641509433962', '+', '(', '7', '*']
['512.2641509433962', '+', '(', '7', '*', '1245']
['512.2641509433962', '+', '8715']
['512.2641509433962', '+', '8715', '+']
['512.2641509433962', '+', '8715', '+', '(']
['512.2641509433962', '+', '8715', '+', '(', '5361']
['512.2641509433962', '+', '8715', '+', '(', '5361', '/']
['512.2641509433962', '+', '8715', '+', '(', '5361', '/', '323']
['512.2641509433962', '+', '8715', '+', '16.597523219814242']
['512.2641509433962', '+', '8715', '+', '16.597523219814242', '.']
9243
```

Save Run

Run with a custom test case (Input/Output)