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B. Text Document Analysis

time limit per test: 1 second
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

Modern text editors usually show some information regarding the document being edited. For example, the number of words, the number of pages, or the number of characters.

In this problem you should implement the similar functionality.

You are given a string which only consists of:

- uppercase and lowercase English letters,
- underscore symbols (they are used as separators),
- parentheses (both opening and closing).

It is guaranteed that each opening parenthesis has a succeeding closing parenthesis. Similarly, each closing parentheses has a preceding opening parentheses matching it. For each pair of matching parentheses there are no other parentheses between them. In other words, each parenthesis in the string belongs to a matching "opening-closing" pair, and such pairs can't be nested.

For example, the following string is valid:

"_Hello_Vasya(and_Petya)__bye_(and_OK)".

Word is a maximal sequence of consecutive letters, i.e. such sequence that the first character to the left and the first character to the right of it is an underscore, a parenthesis, or it just does not exist. For example, the string above consists of seven words: "Hello", "Vasya", "and", "Petya", "bye", "and" and "OK". Write a program that finds:

- the length of the longest word outside the parentheses (print 0, if there is no word outside the parentheses),
- the number of words inside the parentheses (print 0, if there is no word inside the parentheses).

Input

The first line of the input contains a single integer n ($1 \leq n \leq 255$) — the length of the given string. The second line contains the string consisting of only lowercase and uppercase English letters, parentheses and underscore symbols.

Output

Print two space-separated integers:

- the length of the longest word outside the parentheses (print 0, if there is no word outside the parentheses),
- the number of words inside the parentheses (print 0, if there is no word inside the parentheses).

Examples

input
37 _Hello_Vasya(and_Petya)__bye_(and_OK)
output

Codeforces Round #375 (Div. 2)

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: GNU G++ 5.1.0 ▼

Choose file: Choose File No file chosen

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

Submit



→ Last submissions

Submission	Time	Verdict
21160671	Oct/03/2016 17:01	Accepted

→ Problem tags

[expression parsing](#) [implementation](#)
 No tag edit access

→ Contest materials

- Announcement 
- Tutorial 

5 4

input

37

<code>_a(_b__c)__de_f(g_)__h_i(j_k_l)m__</code>

output

2 6

input

27

<code>(LooooG)__shOrt__(LooooG)</code>
--

output

5 2

input

5

<code>(__)</code>

output

0 0

Note

In the first sample, the words "Hello", "Vasya" and "bye" are outside any of the parentheses, and the words "and", "Petya", "and" and "OK" are inside. Note, that the word "and" is given twice and you should count it twice in the answer.

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Server time: Oct/07/2016 02:33:54^{UTC+6} (c3).
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