

Happiness and Sadness (2)

X70475_en

We define the happiness level of a text as the number of occurrences of subwords of the following two types:

- Those formed by a character ' : ', followed by one or more characters ' - ', followed by a character ') '. For example, ":-)" , ":-)" and ":-)" would be of this type.
- Those formed by a character ' (', followed by one or more characters ' - ', followed by a character ' : '. For example, "(-:", "(--:" and "(-:-:" would be of this type.

We define the sadness level of a text as the number of occurrences of subwords of the following two types:

- Those formed by a character ' : ', followed by one or more characters ' - ', followed by a character ' ('. For example, " : - (", " : -- (" and " : --- (" would be of this type.
- Those formed by a character ') ', followed by one or more characters ' - ', followed by a character ' : '. For example, ") - : ", ") -- : " i ") --- : " whould be of this type.

Implement a program such that, given a sequence of characters from `{ '-' , ':' , '(' , ')' }`, prints its level of happiness and sadness.

Input

The input contains only one line with a sequence of characters from $\{ \text{'-}, \text{'::}, \text{'('}, \text{')}' \}$.

Output

The output has two numbers separated by a white space, the happiness and sadness levels of the input text.

Sample input 1	Sample output 1
) -:-- (-- : ((:-:)) : : :) - (((--) (:)) : : - (((((-5 (7 (-- (- ((:-:))) - :-- (- : (:-:)) (--- (-) - (-) :) - : : :)) - : : ((- (: (
Sample input 2	Sample output 2
:-) -:-- (- : -) - : : - ((- : --) - : : : : - - (- :	6 6

Observation

Do not use strings nor any other massive data storage method. Read and treat the input character by character.

Problem information

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