
Happiness and Sadness (2)

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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, ") - : ", ") -- : " and ") --- : " would 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 { ' - ', ' : ', ' (', ') ' }.

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
```

Sample input 3

```
::---)-::-(((-:-)-)-----:--:-(((-----:)
```

Sample output 3

```
4 4:::-(-:::
```

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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