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Compress the String! ☆

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**Problem**

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In this task, we would like for you to appreciate the usefulness of the `groupby()` function of `itertools`. To read more about this function, [Check this out](#).

You are given a string S . Suppose a character ' c ' occurs consecutively X times in the string. Replace these consecutive occurrences of the character ' c ' with (X, c) in the string.

For a better understanding of the problem, check the explanation.

Input Format

A single line of input consisting of the string S .

Output Format

A single line of output consisting of the modified string.

Constraints

All the characters of S denote integers between 0 and 9.

$$1 \leq |S| \leq 10^4$$

Sample Input

```
1222311
```

Sample Output

```
(1, 1) (3, 2) (1, 3) (2, 1)
```

Explanation

First, the character **1** occurs only once. It is replaced by **(1, 1)**. Then the character **2** occurs three times, and it is replaced by **(3, 2)** and so on.

Also, note the single space within each compression and between the compressions.

Author

anuj_95

Difficulty

Medium

Max Score

20

Submitted By

15802

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Python 3



```
1 from itertools import groupby
2 s=input()
3 for k,g in groupby(s):
4     g=list(g)
5     print("({0}, {1})".format(len(g),g[0]),end=" ")
```

Line: 1 Col: 1

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