Look and Say Sequence (Solved) (100 / 100)

Bob is reading a mathematics textbook. She came across the look-and-say sequence.

The look-and-say sequence was introduced by mathematician John Conway, and it goes like this:

> 1, 11, 21, 1211, 111221, 312211, 13112221, 1113213211, …

Each term (except the first) explains the previous term by enumerating the length of each string of consecutive digits, from left to right. For example, 312211 is explained as

one 3, one 1, two 2s, two 1s,

and written as 13112221. A look-and-say sequence can start with any term; the example above starts with 1.

He then wonders, suppose a string of non-zero digits appears in the sequence, what would the next term be. Can you help Bob out?

Input Format

A string, `str`, representing the current term.

Output Format

Output a number, the next term in the sequence.

Sample Input

```
str = "5223888"
```

Sample Output

```
15221338
```

Submit All Answers

Test Cases

Case 1 (10/10 points) | Case 2 (10/10 points) | Case 3 (20/20 points)

Case 4 (20/20 points) | Case 5 (20/20 points) | Case 6 (20/20 points)

Test Case 1

```
str = "444444476666633381118888888"
```

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Answer

74175633283178

Submit **Solved!**