

6948 Jokewithpermutation

Joey had saved a permutation of integers from 1 to n in a text file. All the numbers were written as decimal numbers without leading spaces.

Then Joe made a practical joke on her: he removed all the spaces in the file.

Help Joey to restore the original permutation after the Joe's joke!

Input

The input file contains several test cases, each of them as described below.

The input contains a single line with a single string — the Joey's permutation without spaces.

The Joey's permutation had at least 1 and at most 50 numbers.

Output

For each test case, write a line to the output with the restored permutation. Don't forget the spaces!

If there are several possible original permutations, write any one of them.

Sample Input

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4111109876532
```

Sample Output

```
4 1 11 10 9 8 7 6 5 3 2
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