Max Split

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given a balanced string S consists of **['R', 'L']** characters. Split it into **maximum number of strings** such that the new strings are also balanced.

Note:

- Balanced strings are those who have **equal quantities of 'L' and 'R' characters**.
- You can not remove or reorder the characters while making the new strings.

Input

Only one line contains a string S ($2 \leq |S| \leq 1000$) where |S| is the length of the string.

It's guaranteed that S consists of only ['L', 'R'] letters, S is balanced and $|S|$ is even.

Output

Print maximum number of balanced strings then the balanced strings in any order.

Examples

standard input	standard output
LLRRLLLRRR	2 LLRR LLLRRR
LLLRRR	1 LLLRRR