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2017 ACM ICPC Southeast USA Regional Contest

Purple Rain

Purple rain falls in the magic kingdom of Linearland which is a straight, thin peninsula. On close observation however, Prof. Nelson Rogers finds that actually it is a mix of Red and Blue drops. In his zeal, he records the location of each of the raindrops to fall with its corresponding color in different locations along the peninsula. He wants answer the following question: which section of Linearland had the *least* purple rain? That is, which section had the greatest difference between red rain and blue rain?

After some thought, he decides to model the problem as follows: Divide the peninsula into *n* sections and describe it as a sequence of **R** or **B** values depending on whether the rainfall in that section is primarily red or blue. Then, find the part consisting of consecutive sections where the absolute difference of the count of **R**s and **B**s is maximized.

Input

Each input will consist of a single test case. Note that your program may be run multiple times on different inputs. Each test case will consist of a single line with a string s ($1 \le |s| \le 100,000$), where every character in s is either a capital **B** or a capital **R**. This string describes the peninsula, from west to east.

Output

Output two integers, indicating the start and end of the part of the peninsula which maximizes the difference between $\mathbf{R}s$ and $\mathbf{B}s$. The first character of s is at position $\mathbf{1}$, and the last is at position \mathbf{n} . Output the smaller index first. If there are multiple parts that feature the same maximal absolute difference, print the one with the smallest starting position. If there are multiple such parts starting at that same smallest starting position, print the shortest of those.

Sample Input	Sample Output
BBRRBRBRB	3 7
BBRBBRRB	1 5