A - Broken Necklace

Input: `necklace.in`
Output: `standard output`

You have a necklace of n beads some of which are red, others blue, and others white, arranged at random.

A configuration for a given necklace may be represented as a string of `b`'s and `r`'s, where `b` represents a blue bead and `r` represents a red one, as follows: `brbrrrbbbrrrrrbrrbbrbbbbrrrrb`.

Suppose you are to break the necklace at some point, lay it out straight, and then collect beads of the same color from one end until you reach a bead of a different color, and do the same for the other end (which might not be of the same color as the beads collected before this).

In some necklaces, white beads had been included. When collecting beads, a white bead that is encountered may be treated as either red or blue and then painted with the desired color. The string that represents this configuration will include the three symbols `r`, `b` and `w`.

Write a program to determine the point where a supplied necklace should be broken so that the largest number of beads can be collected.

Input

The input contains several test cases.

The first line of each test case contains an integer n ($3 \leq n \leq 350$), indicating the number of beads. The next line contains a string of n characters, each of which is `r`, `b`, or `w`.

The input will be terminated by a test case starting with $n = 0$. This test case should not be processed.

Output

For each test case output a single line containing the maximum of number of beads that can be collected from the supplied necklace.

Sample Input

```
29
wwwbbrwrbrbrrbrbrwrwwrbwrwrrb
0
```

Sample Output

```
11
```