B. Cards

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Catherine has a deck of n cards, each of which is either red, green, or blue. As long as there are at least two cards left, she can do one of two actions:

- take any two (not necessarily adjacent) cards with different colors and exchange them for a new card of the third color;
- take any two (not necessarily adjacent) cards with the same color and exchange them for a new card with that color.

She repeats this process until there is only one card left. What are the possible colors for the final card?

Input

The first line of the input contains a single integer n $(1 \leq n \leq 200)$ — the total number of cards.

The next line contains a string s of length n — the colors of the cards. s contains only the characters '`B`', '`G`', and '`R`', representing blue, green, and red, respectively.

Output

Print a single string of up to three characters — the possible colors of the final card (using the same symbols as the input) in alphabetical order.

Examples

input
2 RB
output
G

input
3 GRG
output
BR

input
5 BBBBB
output
B

Note

In the first sample, Catherine has one red card and one blue card, which she must exchange for a green card.

In the second sample, Catherine has two green cards and one red card. She has two options: she can exchange the two green cards for a green card, then exchange the new green card and the red card for a blue card. Alternatively, she can exchange a green and a red card for a blue card, then exchange the blue card and remaining green card for a red card.

In the third sample, Catherine only has blue cards, so she can only exchange them for more blue cards.