

H. Hexagon Game

Problem ID: deque

If you ask Doludu and DoIudu what their favorite shape is, they will definitely say it is a hexagon. Because they really love hexagons so much, no matter what object it is, they always want to design it in a hexagonal shape, and game items are no exception.

Today, they are going to play a game. In this game, there are N hexagonal blocks lined up in a row at the beginning, and these hexagonal blocks are divided into blue and red. After the game starts, the two of them will take turns to make a move, with Doludu going first. When it is a player's turn, he must remove either the leftmost or the rightmost block among the currently remaining blocks. At the moment when only one block is left, the game ends. If this block is blue, Doludu wins; otherwise, DoIudu wins.

Both Doludu and DoIudu are extremely smart and will definitely use the optimal strategy to play this game. Based on the initial colors of the N blocks, please determine who will win among them.

Input

The first line of the input contains an integer T , representing that Doludu and DoIudu will play T games.

Next are the details of each game in order. The information for a single game consists of two lines. The first line contains an integer N , representing the number of hexagonal blocks. The second line contains a string S of length N , where the i -th character S_i represents the color of the i -th block from the left, with **B** representing blue and **R** representing red.

- $1 \leq T \leq 10^5$
- $2 \leq N \leq 2 \times 10^5$
- The sum of N over all games does not exceed 2×10^5 .
- $S_i \in \{\mathbf{B}, \mathbf{R}\}$

Output

Output T lines, where the i -th line outputs the result of the i -th game. If Doludu wins, output `Doludu`; otherwise, output `DoIudu`.

Sample Input 1	Sample Output 1
4 5 RRRRR 4 RBRB 4 BRRB 20 RBRBRBBRBRBBRRBRBRBR	DoIudu Doludu DoIudu Doludu