

VSU COPP

F - 'Stack Em Up'



Problem description

Given a stack of papers where each one is labeled with a capital letter, find out the paper that is on top of the stack after N number of actions, specifically:

Swipe - removes the paper on top of the stack; if there are no paper left on the stack, nothing will happen

Place - puts the recently removed paper back on top of the stack; if there are no previously removed papers, no changes on the stack will be done

Input

The first line of input contains an integer N , which is the number of actions to be done on a stack S .

The second line of input contains a string S , which is a string of capital letters that represents the stack of papers with the first character as the top of the stack.

The next N lines will be the actions *Place* or *Swipe*.

Output

You will print the label of the paper that is on top of the stack after performing all actions. If there are no papers left on the stack, print *None*.

Constraints

- $1 \leq N \leq 10^9$
- $1 \leq S.length \leq 10^9$

Sample input/output

Sample input and output for this problem:

Input	Output
5 VISAYASSTATEUNIVERSITY Swipe Swipe Place Place Swipe	I
7 SMOKEANDMIRRORS Place Place Place Place Place Place Place Swipe	M
3 APP Swipe Swipe Swipe	None