



Утегенов Батырхан Елембетұлы [ADS-Lab-01]: Submit a solution

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Submit a solution for I-197984. Classroom of the Elite

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

Problem I: 197984. Classroom of the Elite

In class A, students want to establish a class leader. The class splitted into two fractions: Sakayanagi and Katsuragi. They decided to decide the leader by the following procedure:

1. Each of n students makes a statement. They make statements one by one starting from student 1 and finishing with student n . If student was kicked from the procedure, he/she is skipped.
2. When student makes a statement, he/she can kick any other student from procedure. If someone is kicked from procedure he no longer participates in the procedure till the very end.
3. When the round is finished, i.e. all students are done with their statements, the procedure repeats from step 1.
4. The process repeats until there is only one student eligible to participate and this student becomes the group leader.

Determine the fraction of the group leader, if both fractions play optimally (i.e. both fractions act best they can to make the group leader from their fraction).

Input format

The first line contains a single integer n ($1 \leq n \leq 200000$) — the number of students in class A. The next line contains n characters. The i -th character is 'S' if the i -th student votes for Sakayanagi or 'K' if votes for Katsuragi.

Output format

Print single line: the name of the fraction without quotes.

"SAKAYANAGI" — if Sakayanagi will win.

"KATSURAGI" — if Katsuragi will win.

Examples

Input

```
4
KSKS
```

Output

```
KATSURAGI
```

Input

```
5
SSKKK
```

Output

```
SAKAYANAGI
```

Submit a solution

Language: g++ - GNU C++ 11.4.0

File

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Send!

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Previous submissions of this problem

Run ID	Time	Size	Problem	Language	Result	Failed test	View source	View report
2878	259:44:29	807	I	g++	OK	N/A	View	View

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