
Description

Alice and Bob love to play rock-paper-scissors. They record all of their matches. Write a program that, based on their logs, calculates and prints the name of whoever won more matches, as well as how many matches the winner won.

A match consists of a certain (positive) number of rounds. In each round, both players choose one of rock **R**, paper **P** or scissors **S**. Rock beats scissors, scissors beats paper and paper beats rock. When both players choose the same, the round is a tie.

Examples: If Alice chooses rock, Bob chooses paper, then Bob wins the round. If both choose rock, the round is a tie.

Input

The first line of the input contains a single positive integer n , the number of matches. The next n lines give n matches. Each match is a sequence of rounds. These rounds are presented as space-separated pairs of letters **R**, **P**, or **S**, corresponding to rock, paper, and scissors, respectively. The first character of a pair describes the choice of Alice, the second describes the choice of Bob. Thus,

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|----------|
| PR RP RR |
|----------|

means that the match had 3 rounds, in the first round Alice played paper and Bob played rock, in the next round Alice played rock and Bob played paper, while in the last third round both played rock. The number of matches n satisfies $1 \leq n \leq 10000$ and the number of rounds r per match satisfies $1 \leq r \leq 1000$.

Output

Output whoever won the most matches (not rounds!) followed by the number of matches they won. The winner of the match is the person who won the most rounds (with no winner if there is a tie).

If they both win the same number of matches, give preference to Alice.

Sample Input 1

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|----------|
| 2 |
| PR RP |
| SS SR RR |

Sample Output 1

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|-------|
| Bob 1 |
|-------|

Explanation: The first match is a tie, no one won this, while the second match is won by Bob, so overall Alice won zero, Bob won one match hence Bob is the winner with a single match

Sample Input 2

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3
PR PP RR SP
PR RP RR SP SS PR
SS
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Sample Output 2

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Alice 2
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Explanation: The first two matches are won by Alice, the third is a tie, hence the winner is Alice by 2.