Problem 73: Rock, Paper, Scissors

Difficulty: Easy

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Problem Background

Rock, Paper, Scissors is a simple game typically played head to head by two players. The players in unison say "rock, paper, scissors" and simultaneously form one of those three shapes with their hand. The

winner is determined by comparing hands where ROCK beats SCISSORS, SCISSORS beats PAPER, and PAPER beats ROCK.



For this problem, you are going to be determining the winner of a series of ROCK/PAPER/SCISSORS showdowns. Simple, right? However, to make this more interesting, we are going to allow for a random number of players in each round (2 or more).

Pay close attention to the following rules when determining the winner of each round:

- ROCK beats SCISSORS
- SCISSORS beats PAPER
- PAPER beats ROCK
- If there is not a single winner, the result is "NO WINNER"

Consider these examples:

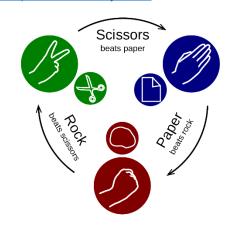
- In a 4 player game with hands of ROCK, SCISSORS, ROCK, ROCK the result is "NO WINNER" because the 3 people with ROCK each beat SCISSORS, but tie with each other.
- In a 4 player game with hands of ROCK, PAPER, ROCK, ROCK the winner is "PAPER" because the single player with PAPER beats all other players with ROCK.

Sample Input

The first line of your program's input, received from the standard input channel, will contain a positive integer representing the number of test cases. Each test case will include:

• 2 or more letters from the set of R, P, or S (representing ROCK, PAPER or SCISSORS) in any sequence separated by single spaces.

Note: The letters (R, P and S) will always be upper case and can occur more than once in a round.



Sample Output

For each test case, your program should output the single winner in the form "ROCK", "PAPER" or "SCISSORS" (upper case), or "NO WINNER" if no single winner prevails.

ROCK

PAPER

NO WINNER

NO WINNER

NO WINNER

ROCK

PAPER

NO WINNER

SCISSORS

NO WINNER