

# Problem F: Rock, Paper, Scissors

Source file: rps.{c, cpp, java}

Input file: rps.in

*Rock, Paper, Scissors* is a classic hand game for two people. Each participant holds out either a fist (rock), open hand (paper), or two-finger V (scissors). If both players show the same gesture, they try again. They continue until there are two different gestures. The winner is then determined according to the table below:

Rock	beats	Scissors
Paper	beats	Rock
Scissors	beats	Paper

Your task is to take a list of symbols representing the gestures of two players and determine how many games each player wins.

In the following example:

```
Turn      : 1 2 3 4 5
Player 1  : R R S R S
Player 2  : S R S P S
```

Player 1 wins at Turn 1 (Rock beats Scissors), Player 2 wins at Turn 4 (Paper beats Rock), and all the other turns are ties.

**Input:** The input contains between 1 and 20 pairs of lines, the first for Player 1 and the second for Player 2. Both player lines contain the same number of symbols from the set {'R', 'P', 'S'}. The number of symbols per line is between 1 and 75, inclusive. A pair of lines each containing the single character 'E' signifies the end of the input.

**Output:** For each pair of input lines, output a pair of output lines as shown in the sample output, indicating the number of games won by each player.

Example Input:	Example Output:
RRSRS	P1: 1
SRSPS	P2: 1
PPP	P1: 0
SSS	P2: 3
SPPSRR	P1: 2
PSPSRS	P2: 1
E	
E	

*Last modified on October 16, 2009 at 3:41 PM.*