2- Intersection
Input File: IntersectionIn.txt

A driverless car is approaching an isolated intersection, and its traffic sensors indicate that there are no other cars in, or approaching, the intersection from any direction. Under these circumstances when the light is green, the car can proceed straight through the intersection, or signal a right or left turn and then proceed. When the light is red the car must stop, or it can make a right turn after stopping and signaling.

This gives three choices on a *green* light represented by the three alternative command codes: P, or RT, or LT that are sent to the car's virtual driver defined as,

P - Proceed straight; RT - signal Right then Turn; LT- signal Left then Turn.

Alternately, there are two other command codes on a *red* light: S, or SRT defined as,

S- Stop ; SRT - Stop, signal Right then Turn.

Given the status of the traffic light (red or green) as the car approaches the intersection, and the direction the car will take through the intersection (straight, left, or right) , your task is to determine the car's command choice.

Inputs:

The first line of input will be the number of intersections to consider. This will followed by line one of input per intersection that contains two integers. The first integer represents the color of the traffic light: 1 for green, 2 for red. The second integer represents the car's intended direction through the intersection: 1 for straight, 2 for left turn, 3 for right turn. All inputs on a line are separated by a space.

Outputs:

There will be one line of output per intersection that contains command code transmitted to the virtual driver at that intersection. All outputs will be in upper case.

Sample Inputs

```
6
1 2
1 1
1 3
2 2
2 1
2 3
```

Sample Outputs

```
LT
P
RT
S
S
SRT
```