

Louise and Richard have developed a numbers game. They pick a number and check to see if it is a power of **2**. If it is, they divide it by **2**. If not, they reduce it by the next lower number which is a power of **2**. Whoever reduces the number to **1** wins the game. Louise always starts.

Given an initial value, determine who wins the game.

As an example, let the initial value  $n = 132$ . It's Louise's turn so she first determines that **132** is not a power of **2**. The next lower power of **2** is **128**, so she subtracts that from **132** and passes **4** to Richard. **4** is a power of **2**, so Richard divides it by **2** and passes **2** to Louise. Likewise, **2** is a power so she divides it by **2** and reaches **1**. She wins the game.

**Update** If they initially set counter to **1**, Richard wins. Louise cannot make a move so she loses.

### Function Description

Complete the *counterGame* function in the editor below. It should return the winner's name, either Richard or Louise.

counterGame has the following parameter(s):

- $n$ : an integer to initialize the game counter

### Input Format

The first line contains an integer  $t$ , the number of testcases.

Each of the next  $t$  lines contains an integer  $n$ , the initial value for the game.

### Constraints

- $1 \leq t \leq 10$
- $1 \leq n \leq 2^{64} - 1$

### Output Format

For each test case, print the winner's name on a new line in the form Louise or Richard.

### Sample Input 0

```
1
6
```

### Sample Output 0

```
Richard
```

### Explanation 0

- **6** is not a power of **2** so Louise reduces it by the largest power of **2** less than **6**:  $6 - 4 = 2$ .
- **2** is a power of **2** so Richard divides by **2** to get **1** and wins the game.