Lunch

Time Limit: 6000/3000 MS (Java/Others) Memory Limit: 524288/524288 K (Java/Others)
Total Submission(s): 0 Accepted Submission(s): 0

Problem Description

Now it's time for lunch. Today's menu is chocolate!

Though every baby likes chocolate, the appetites of babies are little. After lunch, there are still n pieces of chocolate remained: The length of the ith piece is l_i.

Using the remained chocolate, Baby Volcano is going to play a game with his teacher, Mr. Sprague. The rule of the game is quite simple.

Two player plays in turns, and Baby Volcano will play first:

1. In each turn, the player needs to select one piece of chocolate. If the length of the selected piece is equal to 1, the player of this turn will lose immediately.
2. Suppose the length of the selected piece is l. Then the player needs to select a positive integer k satisfying k is at least 2 and k is a factor of l.
3. Then the player needs to cut the selected piece into k pieces with length $\frac{l}{k}$.

The game continues until one player selects a piece of chocolate with length 1.

Suppose both players plays optimally, your task is to determine whether Baby Volcano will win.

Input

The first line contains single integer $t(1 \leq t \leq 2 * 10^4)$, the number of testcases.

For each testcase, the first line contains a single integer $n(1 \leq n \leq 10)$.

The second line contains n positive integers $l_i(1 \leq l_i \leq 10^9)$, representing the length of each piece.

Output

For each testcase, output char 'W' if Baby Volcano will win, otherwise output char 'L'.

Sample Input

```
3
2
4 9
2
2 3
3
3 9 27
```

Sample Output

```
W
L
L
```