Little John is playing very funny game with his younger brother. There is one big box filled with M&Ms of different colors. At first John has to eat several M&Ms of the same color. Then his opponent has to make a turn. And so on. Please note that each player has to eat at least one M&M during his turn. If John (or his brother) will eat the last M&M from the box he will be considered as a looser and he will have to buy a new candy box.

Both of players are using optimal game strategy. John starts first always. You will be given information about M&Ms and your task is to determine a winner of such a beautiful game.

Input

The first line of input will contain a single integer T ($1 \le T \le 474$) — the number of test cases. Next T pairs of lines will describe tests in a following format. The first line of each test will contain an integer N ($1 \le N \le 47$) — the amount of different M&M colors in a box. Next line will contain N integers A_i ($1 \le A_i \le 4747$), separated by spaces — amount of M&Ms of i-th color.

Output

Output T lines each of them containing information about game winner. Print 'John' if John will win the game or 'Brother' in other case.

Sample Input

```
2
3
3 5 1
1
1
```

Sample Output

```
John
Brother
```