Problem L. (1, 2) Nim

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

Sprague and Grundy are playing a game. There are N piles of stones numbered $1, 2, ..., N$. The $i-th$ pile contains $A[i]$ stones.

The following is defined as a **move**:

- Choose a non-empty pile, and remove any non-zero number of stones from it. Formally, choose some i with $A[i] > 0$ and choose $1 \leq j \leq A[i]$. Then replace $A[i]$ by $A[i] - j$.

The players take alternating turns starting with Sprague. In his turn, Sprague must make exactly one move. The rule for Grundy's turn is the following:

- First Grundy must make one move.
- After this move, if atleast one stone is remaining, he must make exactly one more move.

The player to remove the last remaining stone wins the game. Find out who wins if both play optimally.

Input

The first line contains T, the number of testcases. Then the testcases follow, each consisting of two lines:

- The first line of each testcase contains N.
- The second line contains N space separated integers $A[1], A[2], ..., A[N]$.

Constraints

- $1 \leq T \leq 10^4$
- $1 \leq N \leq 10^5$
- $1 \leq A[i] \leq 10^9$ for all $1 \leq i \leq N$
- The sum of N over all testcases doesn't exceed 10^5

Output

For each testcase, print a single line containing `Sprague` if Sprague wins the game and `Grundy` otherwise.

Please note that the checker is `case-sensitive`. Printing `sprague` or sPRAGuE instead of `Sprague` will give `Wrong Answer`.

Example

standard input	standard output
3 2 1 2 1 5 4 1 7 2 9	Grundy Sprague Grundy

Note

In the first testcase, one can verify that Grundy wins. For example, if Sprague removes 1 stone from the second pile, then in his turn, Grundy can remove 1 stone from the first pile in his first move and 1 stone from the second pile in his second move. If Sprague removes 2 stones from the second pile, Grundy can remove the only remaining stone in one move and win the game instantly.