

Game of Cards

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Little Rabbit and Little Horse love playing odd card games. Now, they are playing a card game called *0123 – game*.

There are several cards on the table. c_0 of them are labeled with 0, c_1 of them are labeled with 1, c_2 of them are labeled with 2, and c_3 of them are labeled with 3. Little Rabbit and Little Horse take turns to play the game, and Little Rabbit goes first. In each turn, the player should choose two cards on the condition that the sum of the numbers on the two cards is no more than 3, then replace these two cards with a card labeled with their sum. The player who cannot make a move loses the game.

Little Rabbit and Little Horse wonder who will win the game.

Input

The first line of the input contains an integer T ($1 \leq T \leq 10^5$) — the number of test cases.

Each test case contains four integers c_0, c_1, c_2, c_3 ($0 \leq c_0, c_1, c_2, c_3 \leq 10^9$) — the number of cards labeled with 0, 1, 2, 3.

Output

For the x -th test case, if Little Rabbit wins, output *Case #x: Rabbit* in a single line. Otherwise, output *Case #x: Horse* in a single line.

Example

standard input	standard output
2	Case #1: Horse
1 1 1 1	Case #2: Rabbit
2 2 2 2	