

H. Sourav vs Arko: Battle at Khulna Railway Station

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

Sourav and Arko have been best friends since their freshman year. Together, they compete in programming contests as `trio_Qubit`, representing Northern University of Business and Technology Khulna.

One boring day, they were walking near *Khulna Railway Station* when they stumbled upon some piles of stones.

Bored and curious, they decided to play a simple game using the stones.

The rules are as follows:

1. They randomly choose a number k .
2. Starting with Sourav, they take turns.
3. On each turn, a player can remove between 1 and k stones (inclusive) from the pile.
4. The player who cannot remove stone loses the game.

Given the total number of stones n and the maximum number of stones k that can be removed in one turn, determine who will win the game if both players play optimally and Sourav takes the first turn.

Input

The first line contains a single integer t ($1 \leq t \leq 10^4$) — the number of test cases.

Each of the next t lines contains two integers n, k ($1 \leq n, k \leq 10^9$)

Output

For each test case, print **Sourav** if **Sourav** wins the game; otherwise, print **Arko**. Output each result on a new line

Example

standard input	standard output
3	Sourav
2 2	Arko
13 12	Sourav
17 3	

Note

In the first test case, $n = 2, k = 2$.

It's Sourav's turn first:

He chooses to take 2 stones, the game ends immediately and Arko has no chance to play.

Therefore, Sourav will win the game.