Moving Pebbles

A Game of Moving Pebbles

Two players play the following game. At the beginning of the game they start with **n** (1<=**n**<=100000) piles of stones. At each step of the game, the player chooses a pile and remove at least one stone from this pile and move zero or more stones from this pile to any other pile that still has stones. A player loses if he has no more possible moves. Given the initial piles, determine who wins: the first player, or the second player, if both play perfectly.

Each line of input has integers **0 < n <= 100000**, followed by **n** positive integers denoting the initial piles.

For each line of input, output "first player" if first player can force a win, or "second player", if the second player can force a win.

3 2 1 3

first player

Problemsetter --- Chen, Jiahong