In the game of a drunkard, the deck of cards is distributed equally to two players. Then they open one top card, and the one whose card is older takes two cards that have been opened, which are placed under the bottom of his deck. Anyone who is left without cards loses.

For simplicity, we assume that all cards are different at face value, and also that the lowest card wins the highest card («six takes an ace»).

The player who takes the cards first puts the card of the first player under the bottom of his deck, then the card of the second player (that is, the card of the second player is at the bottom of the deck).

Write a program that simulates the game of a drunkard and determines who wins. The game involves n cards with values from 0 to $n-1$, a large card wins a smaller one, a card with a value of 0 wins a card $n-1$.

The first line contains an even integer n ($2 \leq n \leq 100$). The second line contains $\frac{n}{2}$ – the numbers are the cards of the first player, and the third is $\frac{n}{2}$ – cards of the second player. Cards are listed from top to bottom, that is, each line starts with the card that will be opened first. It is guaranteed that each of the cards is found in the players' decks exactly once.

The program should determine who wins in this distribution, and print the word first or second, and then output the number of moves made before winning. If after $2 \cdot 10^5$ moves the game does not end, the program should print the word draw.

Sample input:
10
1 3 5 7 9
2 4 6 8 0

Sample output:
second 5