

WIN or LOSE

A new fighting game has become popular. There are N number of villains with each having some strength. There are N players in the game with each having some energy. The energy is used to kill the villains. The villain can be killed only if the energy of the player is greater than the strength of the villain.



Maxi is playing the game and at a particular time wants to know if it is possible for him to win the game or not with the given set of energies and strengths of players and villains. Maxi wins the game if his players can kill all the villains with the allotted energy.

Input Format

The first line of Input consists of the number of test cases, T

The first line of each test case consists of the number of villains and player, N

The second line of each test case consists of the N space separated strengths of Villains

The third line of each test case consist of N space separated energy of players

Constrain.

$1 \leq T \leq 10$

$1 \leq N \leq 1000$

$1 \leq \text{strength, energy} \leq 100000$

Output Format

For each test case, Print **WIN** if all villains can be killed else print. **LOSE** In separate lines.

Sample Tesi Case 1

Input

1
6
112 243 512 343 90 478
500 789 234 400 452 150

Output

WIN

Explanation

For the given test case, If we shuffle the players and villains, we can observe that all the villains can be killed by players.

Player	Villain	RESULT
500	478	WIN
789	512	WIN
234	112	WIN
400	243	WIN
452	343	WIN
150	90	WIN

As all the villains can be killed by the players, MAXI will WIN the game, Thus the final output is **WIN**,

Sample Tesi Case 2

Input

2
6
10 20 50 100 500 400
30 20 60 70 90 490
5
10 20 30 40 50
40 50 60 70 80

Output

LOSE
WIN