Related or not

Problem statement:

You are given two DNA sequences A and B. It is said that these two DNA sequences are related if there exists a non-decreasing sequence C of the same length, such that $C_i = A_i$ or $C_i = B_i$. Find if the given sequences are related.

Input format:

The first line contains an integer, T, the number of test cases.

For each test case:
The first line contains an integer, N, the length of the DNA sequence.
The second line contains a sequence of space-separated integers describing species A.
The third line contains a sequence of space-separated integers describing species B.

Output Format

On a new line for each test case, print**YES** if a non-decreasing sequence of the same length can be found or **NO** if it cannot.

Constraints:

$1 \leq T \leq 5$
$1 <= N <= 10 \char`^ 5$
$0 \leq A_i, B_i \leq 10 \char`^ 10$

Sample input:

3

3

1 2 3

4 4 4

3

3 2 1

6 5 4

2

1 0

10 2

Sample Output:

YES

NO

YES