X-MEN

Dr. Charles Xavier is trying to check the correlation between the DNA samples of Magneto and Wolverine. Both the DNAs are of length **N**, and can be described by using all integers between **1** to **N** exactly once. The correlation between two DNAs is defined as the Longest Common Subsequence of both the DNAs.
Help Dr. Xavier find the correlation between the two DNAs.

Input :

First line of input contains number of Test Cases **T**.
ach test case starts with an integer **N**, size of DNA.
Next two lines contains **N** integers each, first line depicting the sequence of Magneto's DNA and second line depicting Wolverine's DNA.

Output :

For each test case print one integer, the correlation between the two DNAs.

Sample Input :

```
2
2
1 2
2 1
3
1 2 3
1 3 2
```

Sample Output :

```
1
2
```

Constraints :

$1 \leq \mathbf{T} \leq 10$
$1 \leq \mathbf{N} \leq 100000$