

Converting a Sequence to Another

You are given two integer sequences **A** and **B**,

Your task is to make the sequence **A** exactly identical to **B**.

You can perform three operations on the sequence **A** :

1. Insert an integer at some position
2. Remove an integer from some position
3. Modify an integer i.e. give a new value to an integer at some position

Every operation takes 1 unit of cost.

Your task is, given **A** and **B**, find the minimum cost to convert **A** to **B**.

Input

First line contains the number of elements in **A**

Second line contains the elements of the array **A**

Third line contains the number of elements in **B**

Fourth line contains the elements of the array **B**

Output

Print the minimum cost of converting **A** to **B**

Notes

Size of the sequences will not exceed 1000

All elements of the sequences fit in a 32-bit integer.

Sample Input 0

```
6
1 2 3 4 5 6
8
1 5 7 2 8 4 5 6
```

Sample Output 0

```
3
```