Problem H
Auction Market

There are N items numbered from 1 to N to be sold at an auction market on a particular day, and the i^{th} item has a starting price of S_i. There are M potential buyers numbered from 1 to M who want to participate in the auction, and the j^{th} potential buyer has a budget of B_j.

Each potential buyer, one by one from the 1^{st} to the M^{th} potential buyer consecutively, inspects each item, one by one from the 1^{st} to the N^{th} item consecutively, and decides whether he is able to bid on that item. The j^{th} potential buyer is able to bid on the i^{th} item if and only if at least one of the following conditions is satisfied.

- No one has bid the i^{th} item yet and $B_j \geq S_i$.
- Someone has bid the i^{th} item and B_j is strictly larger than the largest existing bid for that i^{th} item.

If the j^{th} potential buyer is able to bid on the i^{th} item, then he will bid that i^{th} item at B_j and stop inspecting the remaining items, i.e. he will ignore the $(i+1)^{th}$ to N^{th} items. With this behavior, each potential buyer will only bid at most 1 item. Note that it is also possible for a potential buyer to fail to bid on any item at all, i.e. when his budget is too low.

At the end of the day, after all the potential buyers have either placed their bid or inspected all items, the highest bid for each item is determined and the items are sold to the respective highest bidder. Items that do not have any bidder are not sold.

Your task is to find out how many items are successfully sold at the end of the day.

Input

Input begins with a line containing an integer: N ($1 \leq N \leq 100\,000$) representing the number of items to be sold at the auction market. The second line contains N integers: S_i ($1 \leq S_i \leq 10^9$) representing the starting price of each item. The third line contains an integer M ($1 \leq M \leq 100\,000$) representing the number of potential buyers. The fourth line contains M integers: B_j ($1 \leq B_j \leq 10^9$) representing the budget of each potential buyer.

Output

Output in a line an integer representing the number of items that are successfully sold at the end of the day.

Sample Input #1

```
3
100 200 150
5
110 250 220 130 140
```

Sample Output #1

```
2
```

Explanation for the sample input/output #1

- The 1^{st} potential buyer will bid the 1^{st} item at $B_1 = 110$ (no lower than the starting price $S_1 = 100$).
- The 2^{nd} potential buyer will bid the 1^{st} item at $B_2 = 250$ (higher than the previous bid for this item, 110).
- The 3^{rd} potential buyer will bid the 2^{nd} item at $B_3 = 220$ (no lower than the starting price $S_2 = 200$).
- The 4^{th} potential buyer cannot place any bid.
- The 5^{th} potential buyer cannot place any bid.

At the end of the day,

- The 1^{st} item is sold to the 2^{nd} (potential) buyer at 250.
- The 2^{nd} item is sold to the 3^{rd} (potential) buyer at 220.

Therefore, two items are sucessfully sold.

Sample Input #2

```
4
1000 1000 1000 1000
4
3000 2000 2500 1000
```

Sample Output #2

```
3
```

Sample Input #3

```
5
10 40 30 50 20
4
5 50 10 15
```

Sample Output #3

```
1
```