You are given two arrays of positive integers, boxes and warehouse, representing the heights of some boxes of unit width and the heights of n rooms in a warehouse respectively. The warehouse's rooms are labeled from 0 to n - 1 from left to right where warehouse[i] (0-indexed) is the height of the ith room.

Boxes are put into the warehouse by the following rules:

* Boxes cannot be stacked.
* You can rearrange the insertion order of the boxes.
* Boxes can be pushed into the warehouse from **either side** (left or right)
* If the height of some room in the warehouse is less than the height of a box, then that box and all other boxes behind it will be stopped before that room.

Return *the maximum number of boxes you can put into the warehouse.*

**Example 1:**

A picture containing icon

Description automatically generated

**Input:** boxes = [1,2,2,3,4], warehouse = [3,4,1,2]

**Output:** 4

**Explanation:**

Logo

Description automatically generated

We can store the boxes in the following order:

1- Put the yellow box in room 2 from either the left or right side.

2- Put the orange box in room 3 from the right side.

3- Put the green box in room 1 from the left side.

4- Put the red box in room 0 from the left side.

Notice that there are other valid ways to put 4 boxes such as swapping the red and green boxes or the red and orange boxes.

**Example 2:**

A picture containing icon

Description automatically generated

**Input:** boxes = [3,5,5,2], warehouse = [2,1,3,4,5]

**Output:** 3

**Explanation:**

Icon

Description automatically generated with low confidence

It is not possible to put the two boxes of height 5 in the warehouse since there's only 1 room of height >= 5.

Other valid solutions are to put the green box in room 2 or to put the orange box first in room 2 before putting the green and red boxes.

**Constraints:**

* n == warehouse.length
* 1 <= boxes.length, warehouse.length <= 105
* 1 <= boxes[i], warehouse[i] <= 109