

1659. Get the Maximum Score

Difficulty : Hard

<https://leetcode.com/problems/get-the-maximum-score>

You are given two **sorted** arrays of distinct integers `nums1` and `nums2`.

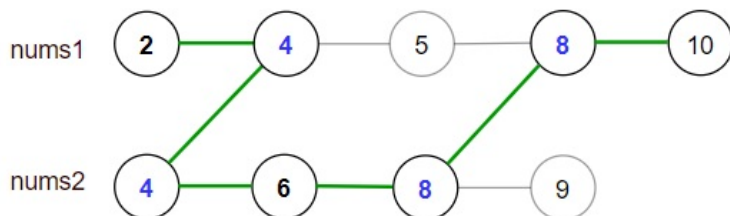
A **valid path** is defined as follows:

- Choose array `nums1` or `nums2` to traverse (from index-0).
- Traverse the current array from left to right.
- If you are reading any value that is present in `nums1` and `nums2` you are allowed to change your path to the other array. (Only one repeated value is considered in the valid path).

The **score** is defined as the sum of unique values in a valid path.

Return *the maximum score you can obtain of all possible **valid paths***. Since the answer may be too large, return it modulo $10^9 + 7$.

Example 1:



Input: `nums1 = [2,4,5,8,10], nums2 = [4,6,8,9]`

Output: 30

Explanation: Valid paths:

[2,4,5,8,10], [2,4,5,8,9], [2,4,6,8,9], [2,4,6,8,10], (starting from `nums1`)

[4,6,8,9], [4,5,8,10], [4,5,8,9], [4,6,8,10] (starting from `nums2`)

The maximum is obtained with the path in green **[2,4,6,8,10]**.

Example 2:

Input: `nums1 = [1,3,5,7,9], nums2 = [3,5,100]`

Output: 109

Explanation: Maximum sum is obtained with the path **[1,3,5,100]**.

Example 3:

Input: `nums1 = [1,2,3,4,5], nums2 = [6,7,8,9,10]`

Output: 40

Explanation: There are no common elements between `nums1` and `nums2`.

Maximum sum is obtained with the path [6,7,8,9,10].

Constraints:

- $1 \leq \text{nums1.length}, \text{nums2.length} \leq 10^5$
- $1 \leq \text{nums1}[i], \text{nums2}[i] \leq 10^7$
- `nums1` and `nums2` are strictly increasing.