

# 3269. Constructing Two Increasing Arrays Premium

Hard Topics Hint

Given 2 integer arrays `nums1` and `nums2` consisting only of 0 and 1, your task is to calculate the **minimum** possible **largest** number in arrays `nums1` and `nums2`, after doing the following.

Replace every 0 with an *even positive integer* and every 1 with an *odd positive integer*. After replacement, both arrays should be **increasing** and each integer should be used **at most** once.

Return the *minimum possible largest number* after applying the changes.

## Example 1:

Input: `nums1 = [], nums2 = [1,0,1,1]`

Output: 5

Explanation:

After replacing, `nums1 = []`, and `nums2 = [1, 2, 3, 5]`.

## Example 2:

Input: `nums1 = [0,1,0,1], nums2 = [1,0,0,1]`

Output: 9

Explanation:

One way to replace, having 9 as the largest element is `nums1 = [2, 3, 8, 9]`, and `nums2 = [1, 4, 6, 7]`.

## Example 3:

Input: `nums1 = [0,1,0,0,1], nums2 = [0,0,0,1]`

Output: 13

Explanation:

One way to replace, having 13 as the largest element is `nums1 = [2, 3, 4, 6, 7]`, and `nums2 = [8, 10, 12, 13]`.

## Constraints:

- `0 <= nums1.length <= 1000`
- `1 <= nums2.length <= 1000`
- `nums1` and `nums2` consist only of 0 and 1.

Seen this question in a real interview before? 1/5

Yes No

Accepted 276 | Submissions 430 | Acceptance Rate 64.2%

Topics

ArrayDynamic Programming

Hint 1

Think of dynamic programming.

Hint 2

Define `dp[i][j][flag]` as the answer to the problem if we only consider the first `i` elements of the first array, the first `j` elements of the second array, and `flag` is either 0 or 1 indicating which array contains the largest element.

Discussion (0)