

1035. Uncrossed Lines

You are given two integer arrays `nums1` and `nums2`. We write the integers of `nums1` and `nums2` (in the order they are given) on two separate horizontal lines.

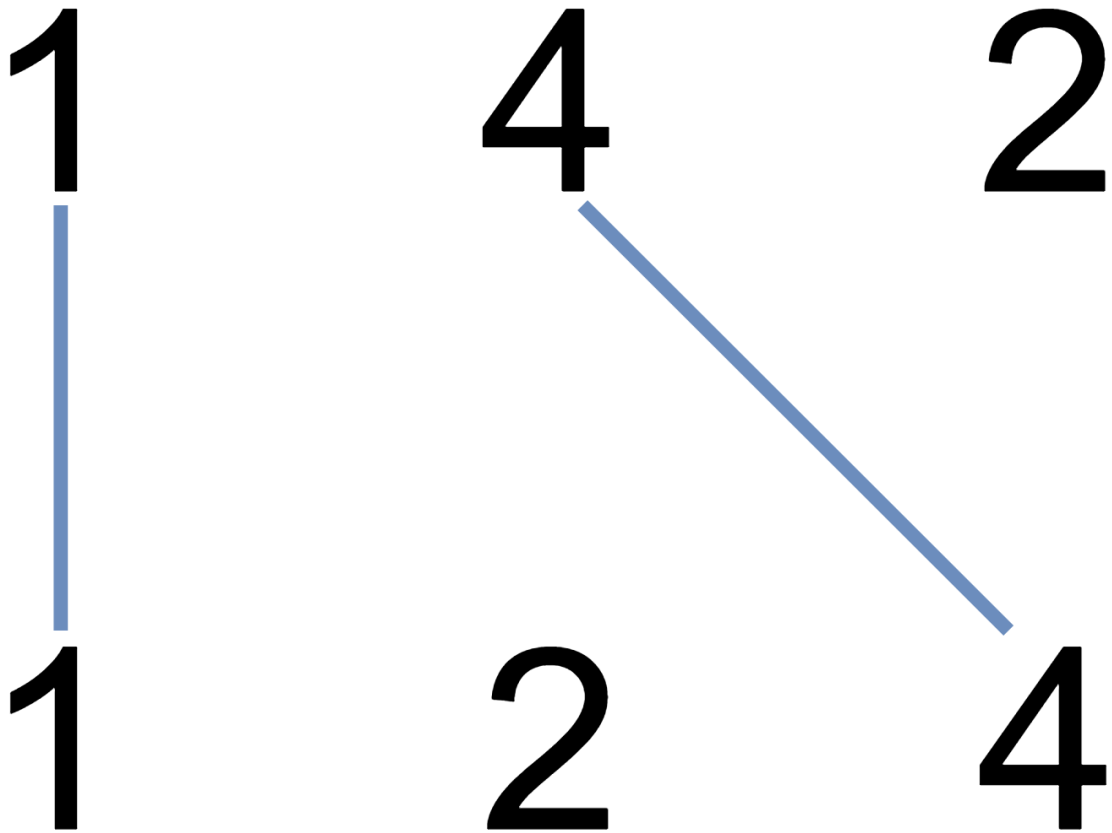
We may draw connecting lines: a straight line connecting two numbers `nums1[i]` and `nums2[j]` such that:

- `nums1[i] == nums2[j]`, and
- the line we draw does not intersect any other connecting (non-horizontal) line.

Note that a connecting line cannot intersect even at the endpoints (i.e., each number can only belong to one connecting line).

Return *the maximum number of connecting lines we can draw in this way*.

Example 1:



Input: `nums1 = [1,4,2]`, `nums2 = [1,2,4]`

Output: `2`

Explanation: We can draw 2 uncrossed lines as in the diagram.
We cannot draw 3 uncrossed lines, because the line from $\text{nums1}[1] = 4$ to $\text{nums2}[2] = 4$ will intersect the line from $\text{nums1}[2]=2$ to $\text{nums2}[1]=2$.

Example 2:

Input: $\text{nums1} = [2,5,1,2,5]$, $\text{nums2} = [10,5,2,1,5,2]$

Output: 3

Example 3:

Input: $\text{nums1} = [1,3,7,1,7,5]$, $\text{nums2} = [1,9,2,5,1]$

Output: 2

Constraints:

- $1 \leq \text{nums1.length}, \text{nums2.length} \leq 500$
- $1 \leq \text{nums1}[i], \text{nums2}[j] \leq 2000$

- ```
def maxUncrossedLines(self, text1: List[int], text2: List[int]) ->
int:
 n = len(text1)
 m = len(text2)
 dp = [[0]*(m+1) for i in range(n+1)]
 for i in range(1,n+1):
 for j in range(1,m+1):
 if text1[i-1]==text2[j-1]:
 dp[i][j] = 1+dp[i-1][j-1]
 else:
 dp[i][j] = max(dp[i-1][j],dp[i][j-1])
 return dp[len(text1)][len(text2)]
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