# Problem 1035: Uncrossed Lines

## Problem Information

**Difficulty:** Medium
**Acceptance Rate:** 64.80%
**Paid Only:** No
**Tags:** Array, Dynamic Programming

## Problem Description

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:**

![](https://assets.leetcode.com/uploads/2019/04/26/142.png)

**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 nums1[1] = 4 to nums2[2] = 4 will intersect the line from nums1[2]=2 to nums2[1]=2.

**Example 2:**

**Input:** nums1 = [2,5,1,2,5], nums2 = [10,5,2,1,5,2] **Output:** 3

**Example 3:**

**Input:** nums1 = [1,3,7,1,7,5], nums2 = [1,9,2,5,1] **Output:** 2

**Constraints:**

* `1 <= nums1.length, nums2.length <= 500` * `1 <= nums1[i], nums2[j] <= 2000`

## Code Snippets

**C++:**

```
class Solution {
public:
int maxUncrossedLines(vector<int>& nums1, vector<int>& nums2) {

}
};
```

**Java:**

```
class Solution {
public int maxUncrossedLines(int[] nums1, int[] nums2) {

}
}
```

**Python3:**

```
class Solution:
def maxUncrossedLines(self, nums1: List[int], nums2: List[int]) -> int:
```