Problem 624: Maximum Distance in Arrays

Problem Information

Difficulty: Medium
Acceptance Rate: 45.63%
Paid Only: No
Tags: Array, Greedy

Problem Description

You are given `m` `arrays`, where each array is sorted in **ascending order**.

You can pick up two integers from two different arrays (each array picks one) and calculate the distance. We define the distance between two integers `a` and `b` to be their absolute difference `|a - b|`.

Return _the maximum distance_.

Example 1:

Input: arrays = [[1,2,3],[4,5],[1,2,3]] **Output:** 4 **Explanation:** One way to reach the maximum distance 4 is to pick 1 in the first or third array and pick 5 in the second array.

Example 2:

Input: arrays = [[1],[1]] **Output:** 0

Constraints:

* `m == arrays.length` * `2 <= m <= 105` * `1 <= arrays[i].length <= 500` * `-104 <= arrays[i][j] <= 104` * `arrays[i]` is sorted in **ascending order**. * There will be at most `105` integers in all the arrays.

Code Snippets

C++:

```
class Solution {
public:
int maxDistance(vector<vector<int>>& arrays) {

}
};
```

Java:

```
class Solution {
public int maxDistance(List<List<Integer>> arrays) {

}
}
```

Python3:

```
class Solution:
def maxDistance(self, arrays: List[List[int]]) -> int:
```