Problem 1131: Maximum of Absolute Value Expression

Problem Information

Difficulty: Medium
Acceptance Rate: 48.49%
Paid Only: No
Tags: Array, Math

Problem Description

Given two arrays of integers with equal lengths, return the maximum value of:

`|arr1[i] - arr1[j]| + |arr2[i] - arr2[j]| + |i - j|`

where the maximum is taken over all `0 <= i, j < arr1.length`.

Example 1:

Input: arr1 = [1,2,3,4], arr2 = [-1,4,5,6] **Output:** 13

Example 2:

Input: arr1 = [1,-2,-5,0,10], arr2 = [0,-2,-1,-7,-4] **Output:** 20

Constraints:

* `2 <= arr1.length == arr2.length <= 40000` * `-10^6 <= arr1[i], arr2[i] <= 10^6`

Code Snippets

C++:

```
class Solution {
public:
int maxAbsValExpr(vector<int>& arr1, vector<int>& arr2) {


}
};
```

Java:

```
class Solution {
public int maxAbsValExpr(int[] arr1, int[] arr2) {


}
}
```

Python3:

```
class Solution:
def maxAbsValExpr(self, arr1: List[int], arr2: List[int]) -> int:
```