

# 1818. Minimum Absolute Sum Difference

## Description

You are given two positive integer arrays `nums1` and `nums2`, both of length `n`.

The **absolute sum difference** of arrays `nums1` and `nums2` is defined as the **sum** of `|nums1[i] - nums2[i]|` for each `0 <= i < n` (**0-indexed**).

You can replace **at most one** element of `nums1` with **any** other element in `nums1` to **minimize** the absolute sum difference.

Return the *minimum absolute sum difference after replacing at most one element in the array* `nums1`. Since the answer may be large, return it **modulo** `109 + 7`.

`|x|` is defined as:

- `x` if `x >= 0`, or
- `-x` if `x < 0`.

### Example 1:

```
Input: nums1 = [1,7,5], nums2 = [2,3,5]
Output: 3
Explanation: There are two possible optimal solutions:
- Replace the second element with the first: [1, 7, 5] => [1, 1, 5], or
- Replace the second element with the third: [1, 7, 5] => [1, 5, 5].
Both will yield an absolute sum difference of |1-2| + (|1-3| or |5-3|) + |5-5| = 3.
```

### Example 2:

```
Input: nums1 = [2,4,6,8,10], nums2 = [2,4,6,8,10]
Output: 0
Explanation: nums1 is equal to nums2 so no replacement is needed. This will result in an
absolute sum difference of 0.
```

### Example 3:

```
Input: nums1 = [1,10,4,4,2,7], nums2 = [9,3,5,1,7,4]
Output: 20
Explanation: Replace the first element with the second: [ 1, 10, 4, 4, 2, 7] => [ 10, 10, 4, 4, 2, 7].
This yields an absolute sum difference of |10-9| + |10-3| + |4-5| + |4-1| + |2-7| + |7-4| = 20
```

### Constraints:

- `n == nums1.length`
- `n == nums2.length`
- `1 <= n <= 105`
- `1 <= nums1[i], nums2[i] <= 105`

