You are given a **0-indexed** integer array nums. An index i is part of a **hill** in nums if the closest non-equal neighbors of i are smaller than nums[i]. Similarly, an index i is part of a **valley** in nums if the closest non-equal neighbors of i are larger than nums[i]. Adjacent indices i and j are part of the **same** hill or valley if nums[i] == nums[j].

Note that for an index to be part of a hill or valley, it must have a non-equal neighbor on **both** the left and right of the index.

Return *the number of hills and valleys in* nums.

**Example 1:**

Input: nums = [2,4,1,1,6,5]  
Output: 3  
Explanation:  
At index 0: There is no non-equal neighbor of 2 on the left, so index 0 is neither a hill nor a valley.  
At index 1: The closest non-equal neighbors of 4 are 2 and 1. Since 4 > 2 and 4 > 1, index 1 is a hill.   
At index 2: The closest non-equal neighbors of 1 are 4 and 6. Since 1 < 4 and 1 < 6, index 2 is a valley.  
At index 3: The closest non-equal neighbors of 1 are 4 and 6. Since 1 < 4 and 1 < 6, index 3 is a valley, but note that it is part of the same valley as index 2.  
At index 4: The closest non-equal neighbors of 6 are 1 and 5. Since 6 > 1 and 6 > 5, index 4 is a hill.  
At index 5: There is no non-equal neighbor of 5 on the right, so index 5 is neither a hill nor a valley.   
There are 3 hills and valleys so we return 3.

**Example 2:**

Input: nums = [6,6,5,5,4,1]  
Output: 0  
Explanation:  
At index 0: There is no non-equal neighbor of 6 on the left, so index 0 is neither a hill nor a valley.  
At index 1: There is no non-equal neighbor of 6 on the left, so index 1 is neither a hill nor a valley.  
At index 2: The closest non-equal neighbors of 5 are 6 and 4. Since 5 < 6 and 5 > 4, index 2 is neither a hill nor a valley.  
At index 3: The closest non-equal neighbors of 5 are 6 and 4. Since 5 < 6 and 5 > 4, index 3 is neither a hill nor a valley.  
At index 4: The closest non-equal neighbors of 4 are 5 and 1. Since 4 < 5 and 4 > 1, index 4 is neither a hill nor a valley.  
At index 5: There is no non-equal neighbor of 1 on the right, so index 5 is neither a hill nor a valley.  
There are 0 hills and valleys so we return 0.

**Constraints:**

* 3 <= nums.length <= 100
* 1 <= nums[i] <= 100