Reverse Pairs

Given an integer array nums, return *the number of **reverse pairs** in the array*.

A **reverse pair** is a pair (i, j) where:

- 0 <= i < j < nums.length and
- nums[i] > 2 * nums[j].

Example 1:

Input: nums = [1,3,2,3,1]

Output: 2

Explanation: The reverse pairs are:

(1, 4) --> nums[1] = 3, nums[4] = 1, 3 > 2 * 1

(3, 4) --> nums[3] = 3, nums[4] = 1, 3 > 2 * 1

Example 2:

Input: nums = [2,4,3,5,1]

Output: 3

Explanation: The reverse pairs are:

(1, 4) --> nums[1] = 4, nums[4] = 1, 4 > 2 * 1

(2, 4) --> nums[2] = 3, nums[4] = 1, 3 > 2 * 1

(3, 4) --> nums[3] = 5, nums[4] = 1, 5 > 2 * 1

Constraints:

- $1 <= nums.length <= 5 * 10^4$
- $-2^{31} <= nums[i] <= 2^{31} - 1$