An array is **squareful** if the sum of every pair of adjacent elements is a **perfect square**.

Given an integer array nums, return *the number of permutations of* nums *that are* ***squareful***.

Two permutations perm1 and perm2 are different if there is some index i such that perm1[i] != perm2[i].

**Example 1:**

Input: nums = [1,17,8]  
Output: 2  
Explanation: [1,8,17] and [17,8,1] are the valid permutations.

**Example 2:**

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

**Constraints:**

* 1 <= nums.length <= 12
* 0 <= nums[i] <= 109