1726. Tuple with Same Product

Description

Given an array `nums` of **distinct** positive integers, return *the number of tuples* `(a, b, c, d)` *such that* `a * b = c * d` *where* `a` , `b` , `c` , *and* `d` *are elements of* `nums` , *and* `a != b != c != d` .

Example 1:

```
Input: nums = [2,3,4,6]
Output: 8
Explanation: There are 8 valid tuples:
(2,6,3,4) , (2,6,4,3) , (6,2,3,4) , (6,2,4,3)
(3,4,2,6) , (4,3,2,6) , (3,4,6,2) , (4,3,6,2)
```

Example 2:

```
Input: nums = [1,2,4,5,10]
Output: 16
Explanation: There are 16 valid tuples:
(1,10,2,5) , (1,10,5,2) , (10,1,2,5) , (10,1,5,2)
(2,5,1,10) , (2,5,10,1) , (5,2,1,10) , (5,2,10,1)
(2,10,4,5) , (2,10,5,4) , (10,2,4,5) , (10,2,5,4)
(4,5,2,10) , (4,5,10,2) , (5,4,2,10) , (5,4,10,2)
```

Constraints:

- `1 <= nums.length <= 1000`
- `1 <= nums[i] <= 10 4`
- All elements in `nums` are **distinct** .