

5243. Tuple with Same Product

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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  $a \neq b \neq c \neq d$ .

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

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) , (3,4,2,6) , (3,4,6,2) , (4,3,6,2)

Example 2:

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

Example 3:

**Input:** `nums = [2,3,4,6,8,12]`  
**Output:** 40

Example 4:

**Input:** `nums = [2,3,5,7]`  
**Output:** 0

Constraints:

- $1 \leq \text{nums.length} \leq 1000$
- $1 \leq \text{nums}[i] \leq 10^4$
- All elements in `nums` are **distinct**.

JavaScript

```
1 /**
2  * @param {number[]} nums
3  * @return {number}
4  */
5 var tupleSameProduct = function(nums) {
6
7  };
```