

2964. Number of Divisible Triplet Sums Premium

Medium 🔒 Topics 🏢 Companies 💡 Hint

Given a **0-indexed** integer array `nums` and an integer `d`, return *the number of triplets* `(i, j, k)` *such that* `i < j < k` *and* `(nums[i] + nums[j] + nums[k]) % d == 0`.

Example 1:

Input: `nums = [3,3,4,7,8]`, `d = 5`
Output: `3`
Explanation: The triplets which are divisible by 5 are: `(0, 1, 2)`, `(0, 2, 4)`, `(1, 2, 4)`.
It can be shown that no other triplet is divisible by 5. Hence, the answer is 3.

Example 2:

Input: `nums = [3,3,3,3]`, `d = 3`
Output: `4`
Explanation: Any triplet chosen here has a sum of 9, which is divisible by 3. Hence, the answer is the total number of triplets which is 4.

Example 3:

Input: `nums = [3,3,3,3]`, `d = 6`
Output: `0`
Explanation: Any triplet chosen here has a sum of 9, which is not divisible by 6. Hence, the answer is 0.

Constraints:

- `1 <= nums.length <= 1000`
- `1 <= nums[i] <= 109`
- `1 <= d <= 109`

Seen this question in a real interview before? 1/5

Yes No

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🔒 Topics

ArrayHash Table

🏢 Companies

0 - 3 months

Salesforce 4Palantir Technologies 2

0 - 6 months

IBM 2

💡 Hint 1

Fix index `L` to be the leftmost element of a triplet.

💡 Hint 2

Starting from `L`, go forward and add the remainder of each element to a map.

💡 Hint 3

Now when you are at index `R`, consider `nums[L] + nums[R]` and calculate what the remainder of the third element should be.

💡 Hint 4

Then use the map to find the number of valid third elements between `L` and `R`.

💬 Discussion (1)