

# Unknown Title



Description

Description



Note

Note



Editorial

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Solutions

Solutions



Submissions

Submissions



Code

Code



Testcase

Testcase

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Test Result

Test Result

## 238. Product of Array Except Self

Medium



Topics



Companies



Hint

Given an integer array `nums`, return *an array* `answer` *such that* `answer[i]` *is equal to the product of all the elements of* `nums` *except* `nums[i]`.

The product of any prefix or suffix of `nums` is **guaranteed** to fit in a **32-bit** integer.

You must write an algorithm that runs in  $O(n)$  time and without using the division operation.

### Example 1:

**Input:** `nums = [1,2,3,4]`

**Output:** `[24,12,8,6]`

### Example 2:

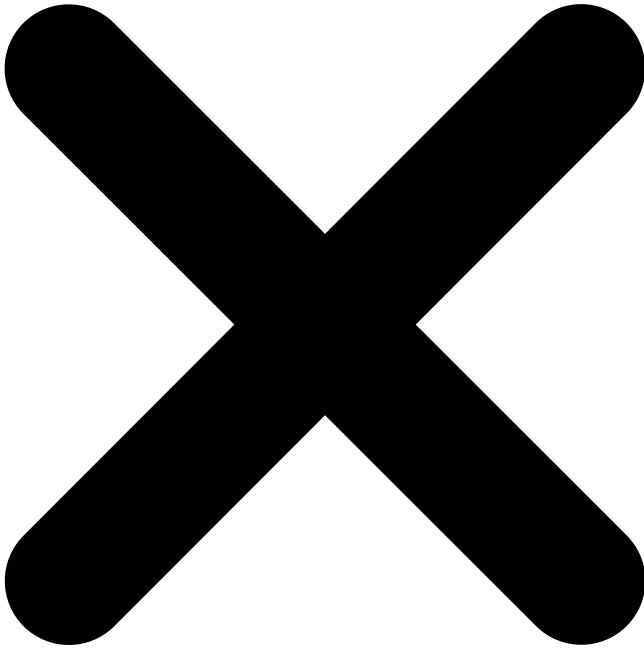
**Input:** `nums = [-1,1,0,-3,3]`

**Output:** `[0,0,9,0,0]`

### Constraints:

- $2 \leq \text{nums.length} \leq 10^5$
- $-30 \leq \text{nums}[i] \leq 30$
- The product of any prefix or suffix of `nums` is **guaranteed** to fit in a **32-bit** integer.

**Follow up:** Can you solve the problem in  $O(1)$  extra space complexity? (The output array **does not** count as extra space for space complexity analysis.)



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Seen this question in a real interview before?

1/5

Yes

No

Accepted

3.1M

Submissions

4.6M

Acceptance Rate

66.9%



Topics



[ArrayPrefix Sum](#)

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Companies



Hint 1



Think how you can efficiently utilize prefix and suffix products to calculate the product of all elements except self for each index. Can you pre-compute the prefix and suffix products in linear time to avoid redundant calculations?

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Hint 2



Can you minimize additional space usage by reusing memory or modifying the input array to store intermediate results?

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Discussion (357)



Discussion Rules



1. Please don't post **any solutions** in this discussion.

2. The problem discussion is for asking questions about the problem or for sharing tips - anything except for solutions.

3. If you'd like to share your solution for feedback and ideas, please head to the solutions tab and post it there.

No comments yet.

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1

2

3

4

5

```
class Solution {
```

```
    public int[] productExceptSelf(int[] nums) {
```

```
    }
```

```
}
```



Saved

Ln 1, Col 1

```
nums =
```

```
[1,2,3,4]
```

```
9
```

```
1
```

```
2
```

```
>
```

[1,2,3,4]

[-1,1,0,-3,3]

</>

Source



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