

Product of Array Except Self

Try to solve the Product of Array Except Self problem.

We'll cover the following ^

- Statement
- Examples
- Understand the problem
- Try it yourself

Statement

You're given an integer array, `arr`. Return a resultant array so that `res[i]` is equal to the product of all the elements of `arr` except `arr[i]`.

Write an algorithm that runs in $O(n)$ time without using the division operation.

Constraints:

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

Examples

Sample example 1

Input

arr	2	4	0	6
-----	---	---	---	---

Output

res	0	0	48	0
-----	---	---	----	---

1 of 2

Sample example 2

Input

arr	1	-3	5	7	-11
-----	---	----	---	---	-----

Output

res	1155	-385	231	165	-105
-----	------	------	-----	-----	------

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Understand the problem

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Product of Array Except Self

1

What is the output if the following array is given as input?

arr = [-1, 2, 3, 5, 0]

A) [30, -15, -10, -6, -30]

B) [0, -15, -10, -6, -30]

C) [30, -15, -10, -6, 0]

D) [0, 0, 0, 0, -30]

Submit Answer

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Question 1 of 3
0 attempted

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Reset Quiz ↻

Try it yourself

Implement your solution in the following coding playground:

Java

usercode > Product.java

```
1 import java.util.*;
2 public class Product{
3     public static int[] product(int[] arr) {
4
5
6
7         return new int[]{};
8     }
9 }
```

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Submit

Test Cases

Results

Case 1

Case 2

Case 3

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🔄

Input #1

[0,-1,2,-3,4,-2]

Product of Array Except Self

💡 Hide Hint

You might want to go over the [Two Pointers](#) pattern again.

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Loud and Rich

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Completed

