It's Just Multiplication

You have an array of integers, and for each index you want to find the product of every integer except the integer at that index.

Write a function that takes an array of integers as input and returns an array of the products.

For example, given the array:

[1, 7, 3, 4]

your function would return:

[84, 12, 28, 21]

by calculating:

 [7 * 3 * 4, 1 * 3 * 4, 1 * 7 * 4, 1 * 7 * 3]

Do not use division in your solution.