

Find product array such that product[i] is equal to product of all elements except product[i] without using division operator

```
#include <stdio.h>
#include <stdlib.h>

void productArrayWithoutDivision(int *arr, int size)
{
    int temp = 1, *product, index;

    //allocate memory
    product = (int *)malloc(sizeof(int) * size);
    for(index = 0; index < size; index++)
    {
        product[index] = temp;
        temp *= arr[index];
    }
    temp = 1;
    for(index = size - 1; index >= 0; index--)
    {
        product[index] *= temp;
        temp *= arr[index];
    }
    for(index = 0; index < size; index++)
        printf("%d\t", product[index]);
}

int main()
{
    int *arr, size;
    printf("Enter size of the array\n");
    scanf("%d", &size);

    arr = (int *)malloc(sizeof(int) * size);
    printf("Enter elements in array\n");
    for(int index = 0; index < size; index++)
        scanf("%d", &arr[index]);

    productArrayWithoutDivision(arr, size);
    return 0;
}
Time complexity: O(n)
Space complexity: O(n)
```