**Product array puzzle**

[array](http://www.practice.geeksforgeeks.org/tag-page.php?tag=array&isCmp=0)[math](http://www.practice.geeksforgeeks.org/tag-page.php?tag=math&isCmp=0)

Given an array arr[] of n integers, construct a Product Array prod[] (of same size) such that prod[i] is equal to the product of all the elements of arr[] except arr[i].

**Input:**

The first line of input contains an integer T denoting the number of test cases.  
The first line of each test case is N,N is the size of array.  
The second line of each test case contains N input A[i].  
  
**Output:**

Print the Product array prod[].  
  
**Constraints:**

1 ≤ T ≤ 10  
2 ≤ N ≤ 15  
1 ≤ C[i] ≤ 20  
  
**Example:**

Input  
2  
5  
10 3 5 6 2  
2  
12 20

Output  
180 600 360 300 900  
20 12

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=571>

#include <iostream>

#include <vector>

#include <stdlib.h>

#include <algorithm>

#include <stdio.h>

#include <map>

#include <limits.h>

#define ll long long int

using namespace std;

int main() {

    int t;

    scanf("%d", &t);

    while(t--) {

        int n;

        scanf("%d", &n);

        ll A[n];

        for(int i =0; i <n; i++)

            scanf("%lld", &A[i]);

        ll prod= 1;

        for(int i =0; i<n; i++) {

            prod\*=A[i];

        }

        for(int i =0; i<n; i++) {

            printf("%lld ", prod / A[i]);

        }

        printf("**\n**");

    }

    return 0;

}