**Product of array elements**

Submissions: [23063](https://practice.geeksforgeeks.org/problem_submissions.php?pid=700714)  Accuracy:

40.8%

   Difficulty: [Basic](https://practice.geeksforgeeks.org/Basic/1/0/)   Marks: 1

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This is a functional problem . Your task is to return the product of array elements under a given modulo.   
The **modulo operation** finds the remainder after division of one number by another. For example, K(mod(m))=K%m= remainder obtained when K is divided by m.

**Input:**

The first line of input contains T denoting the number of testcases.Then each of the T lines contains a single positive integer N denotes number of element in array. Next line contain 'N' integer elements of the array.

**Output:**

Return the product of array elements under a given modulo.  
That is, return (Array[0]\*Array[1]\*Array[2]...\*Array[n])%modulo.

**Constraints:**

1<=T<=200

1<=N<=10^5

1<=ar[i]<=10^5

**Example:**

**Input:**

1

4

1 2 3 4

**Output:**

24

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/product-of-array-element/1/?ref=self#ExpectOP) option \*\*

[Author: sumit.chauhan](https://auth.geeksforgeeks.org/user/sumit.chauhan/practice/)

<https://practice.geeksforgeeks.org/problems/product-of-array-element/1/?ref=self>

long long int product(int ar[], int n, long long int mod)

{

//(a\*b)%m=((a%m) \* (b%m)%m).

//code here

long long int prod = 1;

for(int i =0; i<n; i++) {

prod = ((ar[i] % mod) \* (prod % mod)) % mod;

}

return prod;

}