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Connecting Towns ■



Problem

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Gandalf is travelling from **Rohan** to **Rivendell** to meet Frodo but there is no direct route from **Rohan** (T_1) to **Rivendell** (T_n).

But there are towns T_2 , T_3 , T_4 ... T_{n-1} such that there are N_1 routes from Town T_1 to T_2 , and in general, N_i routes from T_i to T_{i+1} for i=1 to n-1 and 0 routes for any other T_i to T_i for $j \neq i+1$

Find the total number of routes Gandalf can take to reach Rivendell from Rohan.

Note

Gandalf has to pass all the towns T_i for i=1 to n-1 in numerical order to reach T_n . For each T_i , T_{i+1} there are only N_i distinct routes Gandalf can take.

Input Format

The first line contains an integer T, T test-cases follow.

Each test-case has 2 lines. The first line contains an integer N (the number of towns).

The second line contains N - 1 space separated integers where the ith integer denotes the number of routes, N_i , from the town T_i to T_{i+1}

Output Format

Total number of routes from T_1 to T_n modulo 1234567 http://en.wikipedia.org/wiki/Modular_arithmetic

Constraints

1 <= T<=1000

2< N <=100

 $1 <= N_i <= 1000$

Sample Input

2

3

1 3

2 2 2

Sample Output

3

Explanation

Case 1: 1 route from T_1 to T_2 , 3 routes from T_2 to T_3 , hence only 3 routes.

Case 2: There are 2 routes from each city to the next, at each city, Gandalf has 2 choices to make, hence 2 * 2 * 2 = 8.

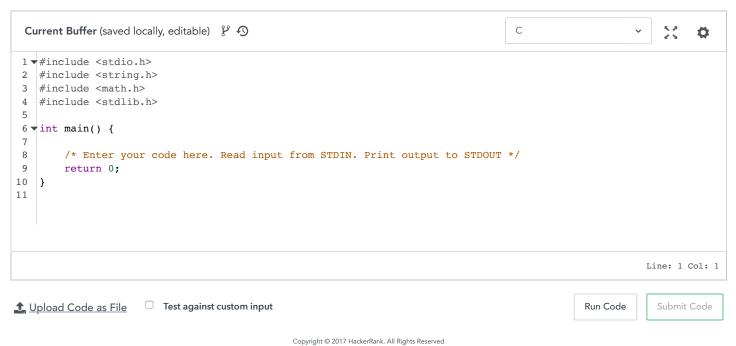
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Max Score: 10 Difficulty: Easy

Submissions: 11986



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