Problem

For an array A of length N, let $F(A)$ denote the sum of the product of all the subarrays of A. Formally,

$$F(A) = \sum_{L=1}^{N} \sum_{R=L}^{N} \left(\prod_{i=L}^{R} A_i \right)$$

For example, let $A = [1, 0, 1]$, then there are 6 possible subarrays:

- Subarray $[1, 1]$ has product $= 1$
- Subarray $[1, 2]$ has product $= 0$
- Subarray $[1, 3]$ has product $= 0$
- Subarray $[2, 2]$ has product $= 0$
- Subarray $[2, 3]$ has product $= 0$
- Subarray $[3, 3]$ has product $= 1$

So $F(A) = 1 + 1 = 2$.

Given a **binary** array A, determine the value of $F(A)$.

Input Format

- The first line of input will contain a single integer T, denoting the number of test cases.
- Each test case consists of multiple lines of input.
  - The first line of each test case contains a single integer N denoting the length of the array.
  - The second line contains N space-separated integers denoting the array A.

Output Format

For each test case, output on a new line the value of $F(A)$.

Constraints

- $1 \leq T \leq 1000$
- $1 \leq N \leq 10^5$
- $0 \leq A_i \leq 1$
- `The sum of` N `over all test cases won't exceed` $2 \cdot 10^5$.

Sample 1:

Input	Output
4 3 1 0 1 1 0 2 1 1 4 1 1 0 1	2 0 3 4

Explanation:

Test case 1: Explained in the statement.

Test case 2: There is only 1 subarray and it has product $= 0$.

Test case 3: All the 3 subarrays have product $= 1$.

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