

Problem

Visuals can be deceptive, and so can be the titles of the contest, but not every time you'll be asked tough questions in an **EASY** contest.

In this problem, you will be given an array of integers and you need to tell the cost of the cheapest possible subarray of length **at least two**.

A subarray is the sequence of consecutive elements of the array and the **cost** of a subarray is the sum of minimum and the maximum value in the subarray.

Note: In an array of length n , there are $\frac{n(n-1)}{2}$ subarrays whose length is atleast 2.

Constraints:

- $1 \leq t \leq 10$
- $2 \leq n \leq 2 \times 10^4$
- $1 \leq a_i \leq 2 \times 10^4$

Input Format:

The first line contains a single integer t denoting the number of test cases.

The first line of each test case contains n i.e the number of elements in the array. Next lines contains n space-separated integers a_i

Output Format:

Print t lines each containing a single integer. i^{th} integer denotes the cost of the cheapest subarray for the i^{th} array.

Sample Input	Sample Output
2 2 3 2 3 3 4 2	5 6

Time Limit: 1

Memory Limit: 256

Source Limit: