Split the Array

Accuracy: 53.18% Submissions: 692 Points: 20

You are given an array **A** of length **N**. You can split the array into non-empty consecutive subarrays. Different subarrays can have different lengths, and every element in the array should be included in exactly one subarray. If the i^{th} element of the array is at the j^{th} position in the k^{th} subarray, then it adds the following **beauty** to the array:

- $(-1)^{(j+k)\%2} * A_i$

Find the **maximum** beauty obtainable by optimally partitioning the array.

Input Format:
The first line of the input contains a single integer **T** denoting the number of test cases. The description of **T** test cases is as follows:

- The first line of each test case contains an integer **N** - the array's length.
- The second line of each test case contains **N** space-separated integers - $A_1, A_2,...A_N$.

Output Format:
For each test case, print the **maximum** beauty obtainable by optimally partitioning the array followed by a newline character.
Note: Generated output is white space sensitive, do not add any extra spaces on unnecessary newline characters.

Constraints:
$1 \le T \le 2500$
$1 \le N \le 10000$
$0 \le |A_i| \le 10^9$
*The sum of **N** over all test cases does not exceed 500000.*

Example: