

Problem

Chef has an array A of length N . In one operation, Chef can:

- Choose any subarray $[L, R]$ ($1 \leq L \leq R \leq N$);
- Add 1 to A_L , subtract 1 from A_{L+1} , add 1 to A_{L+2} , subtract 1 from A_{L+3} and so on, till A_R .

Chef performed Q such operations where the i^{th} operation was performed on the subarray $[L_i, R_i]$.

Determine the final **sum** of the array after these Q operations.

Note that a subarray is formed by deleting some (possibly zero) elements from the beginning and some (possibly zero) elements from the end of the array.

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 two integers N, Q , number of elements and the number of queries.
 - The next line contains N space-separated integers $A_1, A_2, \dots A_N$ - denoting the array A .
 - The next Q lines contains two space-separated integers with i^{th} line containing L_i, R_i .

Output Format

For each test case, output the final sum of the array after performing all the Q operations.

Constraints

- $1 \leq T \leq 1000$
- $1 \leq N, Q \leq 3 \cdot 10^5$
- $1 \leq A_i \leq 100$
- The sum of N over all test cases won't exceed $3 \cdot 10^5$.
- The sum of Q over all test cases won't exceed $3 \cdot 10^5$.

Sample 1:

Input	Output
2	16
5 3	6
1 3 4 4 2	
1 5	
3 4	
2 2	
1 2	
4	
1 1	
1 1	

Explanation:

Test case 1: The queries are as follows:

- Query 1: The chosen subarray is $[1, 3, 4, 4, 2]$ which changes to $[1 + 1, 3 - 1, 4 + 1, 4 - 1, 2 + 1] = [2, 2, 5, 3, 3]$. Thus, the array becomes $[2, 2, 5, 3, 3]$.
- Query 2: The chosen subarray is $[5, 3]$ which changes to $[5 + 1, 3 - 1] = [6, 2]$. Thus, the array becomes $[2, 2, 6, 2, 3]$.
- Query 3: The chosen subarray is $[2]$ which changes to $[2 + 1] = [3]$. Thus, the array becomes $[2, 3, 6, 2, 3]$.

The sum of final array is $2 + 3 + 6 + 2 + 3 = 16$.

Test case 2: The queries are as follows: