Problem

The *beauty* value of an array is defined as the difference between the largest and second largest elements of the array. Note that the largest and second largest elements can have the same value in case of duplicates.

For example, *beauty* value of $[2, 5, 3, 1] = 5 - 3 = 2$ and *beauty* value of $[7, 6, 7] = 7 - 7 = 0$

You are given an array A of length N. Your task is to find the total number of **distinct** *beauty* values among all *subarrays* of A having length greater than 1.

Note that, a subarray is obtained 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 two lines of input.
  - The first line of each test case contains a single integer N — the size of the array.
  - The second line contains N space-separated numbers - $A_1, A_2, \ldots, A_N$, the elements of the array.

Output Format

For each test case, output a single line, the total number of **distinct** beauty among all *subarrays* of A having length greater than 1.

Constraints

- $1 \le T \le 10^4$
- $2 \le N \le 2 \cdot 10^5$
- $1 \le A_i \le 10^9$
- Sum of N over all test cases does not exceed $2 \cdot 10^5$.

Sample 1:

Input		Output	
4		1	
2		2	
1 1		4	
3		4	
4 2 1			
4			
8 1 7 2			
5			
6 9 4 2 1			

Explanation:

Test case 1**:** The only subarray is $[1, 1]$ whose beauty is 0. Thus, there is only 1 distinct value of beauty.

Test case 2**:** The subarrays are $[4, 2]$, $[2, 1]$, and $[4, 2, 1]$ having beauty 2, 1, and 2 respectively. There are 2 distinct values of beauty.

Test case 3**:** The unique values of beauty are $7, 1, 6$, and 5.

Test case 4**:** The unique values of beauty are $3, 5, 2$, and 1.

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