Peak Locator

ZPRAC-16-17-Lab5

[20 points]

You are given an array A, of n integers. Find the number of local maximas in the array. An element A[i] is considered a local maxima if A[i] > A[i-1] and A[i] > A[i+1]. We want to ensure that 0 ≤ i-1 ≤ n-1 and 0 ≤ i+1 ≤ n-1, so do not consider the first and the last array element as candidate for local maxima.

Input Format:
The first line contains 1 integer n.
The second line contains n space seperated integers describing the array A.

Output:
Print the number of local maximas in the array A

Constraints:
$3 \leq n \leq 200$

Example Input:
10
1 5 2 200 10 2 56 1 7 98

Output:
3

Explanation:
5, 200 and 56 are the 3 local maximas in the array.
Note that 98 > 7 but as it is a boundary element of the array, we have not considered it.