

D. Local Extrema

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You are given list Z . Elements of this array Z_i will be consider as *local minima* if the element is strictly less than both of its neighbors ($Z_i < Z_{i-1}$ and $Z_i < Z_{i+1}$). Also the element will called *local maxima* if the element is strictly greater than its neighbors ($Z_i > Z_{i-1}$ and $Z_i > Z_{i+1}$). Since Z_1 and Z_n have only one neighbors each, they are neither *local minima* nor *local maxima*.

An elements is called *local extrema* if it either *local minima* or *local maxima*. Your task is to calculate the number of local extrema in the array.

Input

The first line of the input contains one integer n ($1 \leq 1000$) which denotes the number of element in the array.

The second line will contains n integer Z_1, Z_2, \dots, Z_n ($1 \leq Z_n \leq 1000$) which denotes the elements of array Z

Output

Print the number of local extrema in the array

Sample Input	Sample Output
5 2 3 1 2 5	Local Exima : 2
3 12 34 33	Local Exima : 1