The Mountaineer.

An enthusiastic Mountaineer wanted to travel as many peaks as he could. All the mountains are represented as an array of integers A of size N.

A peak is defined as an element that is greater than both its neighbors, ie. A[i], such that A[i-1] < A[i] > A[i-1], 0 < i < N-1.

Once reached, he wishes to place flags on the peaks. A valid placement of k flags is a placement such that between every two adjacent peaks A[i] and A[j], |j-i| >=k.

Find the maximum number of flags(k) that can be placed, resulting in a valid configuration(maintaining at least k distance between two adjacent flags).

Example: N = 12 A = [0, 1, 4, 2, 5, 7, 6, 5, 6, 2, 11, 0] Answer: 3 Explanation: Peaks are at indices 2, 5, 8 and 10. We can place 1 flag at 2. We can place 2 flags at 2 and 8. We can place 3 flags at 2, 5 and 10. We cannot place 4 flags, maintaining a distance of at least 4 between every pair of consecutive flags. Therefore, we return 3

Input Format

A two line input. The first is an integer(N), and the second is an array of size N.

Constraints

N<100;

Output Format

A single integer value.

Sample Input 0

```
12
0 1 4 2 5 7 6 5 6 2 11 0
```

Sample Output 0

```
3
```