Po's rectangular boxes

Max. Marks: 100

Po, a five-year-old kid loves to play with rectangles. He has ***n*** of rectangular boxes. He arranges these rectangular boxes in a two-dimensional landscape. The height of each rectangular box is denoted by hi ,i∈[1,N].

If you join *K* boxes, they will form a solid rectangle of area = K×min(hi,hi+1,...,hi+k−1)

Given ***n*** number of boxes. Your aim is to find greatest solid area formed by consecutive rectangular boxes.

Input::: The first line contains **N**, the number of rectangular boxes altogether. The second line contains **N** space-separated integers, each representing the height of a box.

Output::: One integer representing the maximum area of rectangle formed.

Constraints::: 1≤N≤10^5, 1≤hi≤10^6.

Sample Input (Plaintext Link)

```
5
1 2 3 2 4
```

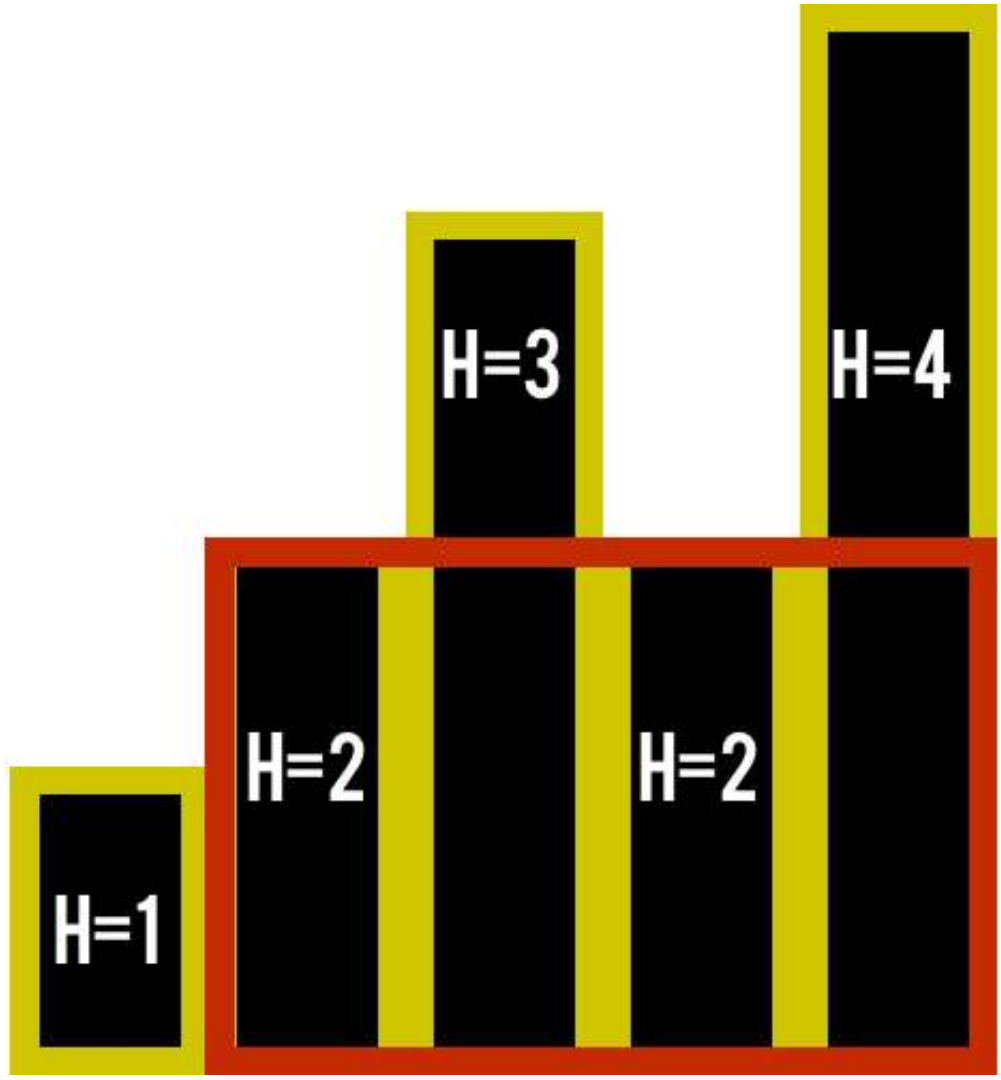
Sample Output (Plaintext Link)

```
8
```

Explanation

From the image given below, the largest area is possible is possible if we choose the boxes at

positions 2,3,4 and 5. Hence, the area is 4*min(2,3,2,4) = 42 = 8



Time Limit: 5.0 sec(s) for each input file.

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded when all the testcases pass.

Allowed languages: C, CPP, CLOJURE, CSHARP, GO, HASKELL, JAVA, JAVASCRIPT, JAVASCRIPT_NODE, LISP, OBJECTIVEC, PASCAL, PERL, PHP, PYTHON, RUBY, R, RUST, SCALA

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Load Code Editor You can submit code after loading editor.

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