The Virtual Learning Environment for Computer Programming

Length of Longest Ascending Factor

X86404_en

Write a function *asc_stair* that receives as argument a sequence of non-negative integers, and returns the length of the longest "ascending staircase" or subsequence of *consecutive* integers where each is strictly bigger than the previous one (technically, the length of the longest *ascending factor*).

Input is received as argument of the function. It is a list of integer values, all positive or zero. The result returned by the function must be an integer k such that the longest ascending sequences of consecutive integers in the input are of length k.

Sample session

```
>>> asc_stair([ 1, 2, 3, 3, 1, 3, 5, 7, 2, 4, 6, 8, 8, 9, 10 ])
4
>>> asc_stair([ ])
0
>>> asc_stair([ 234 ])
1
>>> asc_stair([ 44, 43, 42, 41, 40 ])
1
>>> asc_stair([ 44, 43, 42, 50, 41, 40 ])
2
>>> asc_stair([ 44, 43, 42, 41, 40 ])
2
>>> asc_stair([ 44, 43, 42, 41, 40, 50 ])
2
>>> asc_stair([ 40, 44, 43, 42, 41, 40 ])
2
>>> asc_stair([ 40, 44, 43, 42, 41, 40 ])
```

Problem information

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