

3105.

[1, 4, 3, 3, 2]

inc = 1 ; dec = 1

cnt_i = 1

inc loop

i = 0 \Rightarrow 1 < 4 \Rightarrow cnt_i = 2 inc = 2

i = 1 \Rightarrow 4 \nless 3 cnt = 1

i = 2 \Rightarrow 3 \nless 3 cnt = 1

i = 3 \Rightarrow 3 > 2 cnt = 1

dec. loop

cnt_d = 1

i = 0 1 \nless 4 cnt = 1

$$i = 1 \quad 4 > 3 \quad \text{cnt} = 2 \quad \text{dec} = 2$$

$$i = 2 \quad 3 > 3 \quad \text{cnt} = 1$$

$$i = 3 \quad 3 > 2 \quad \text{cnt} = 1$$

$$i_{\text{nc}} = 2 \quad \text{dec} = 2 \Rightarrow 2$$

[3, 2, 1]

$$i_{\text{nc}} = 1 \quad \text{dec} = \text{cnt} - i = 1$$

$$\text{cnt} - 1 = 1$$

inc loop

$$i = 0 \quad 3 > 2 \quad \text{cnt} = 1$$

$$i = 1 \quad 2 > 1 \quad \text{cnt} = 1$$

dec loop

$i=0$ $3 < 2$ $cnt=2$ $dec=2$

$i=1$ $2 < 1$ $cnt=3$ $dec=3$

$(0,3) \Rightarrow 3$

</> Code

C++ v Auto

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```
1  class Solution {
2  public:
3      int longestMonotonicSubarray(vector<int>& nums) {
4          int n=nums.size(); int inc=1;
5          int dec=1;
6          int cnt=1;
7          for(int i=0;i<n-1;i++){
8              if(nums[i]<nums[i+1])
9                  cnt++;
10             else
11                 cnt=1;
12             if(cnt>inc)
13                 inc=cnt;
14         }
15         int cnt2=1;
16         for(int i=0;i<n-1;i++){
17             if(nums[i]>nums[i+1])
18                 cnt2++;
19             else
20                 cnt2=1;
21             if(cnt2>dec)
22                 dec=cnt2;
23         }
24         return max(inc,dec);
25     }
26 };
```

Saved

Ln 22, Col 21