

Shortest Sublist to Sort

[5, 4, 3, 2, 8, 9]

- len is greater than 2

- $prev = 5$
 $end = 0$

- traverse the loop from left to right.
first comparison $nums[i] < prev$

5 < 5?

no

- so update $prev = nums[i]$

$prev = 5$
 $end = 0$

- i increases by 1

second comparison $nums[i] < prev$

4 < 5

yes

- update $end = i$

$prev = 5$
 $end = 1$

- for the next two increments of i, i.e., $i=2$ $i=3$

end gets updated and prev stays same

$prev = 5$
 $end = 3$

- for the final two increments in the first for loop, the end value will remain 3 and prev will be updated to 8 then 9.
- By the end of the first for loop we have located where the smallest number in the subarray is by looking at 'end'.
- end is the index of the smallest number in the sub-array.