

493 In a language with array element assignment and list concurrency, what is the exact precondition for

if $\#A \leq 1$ **then** *ok*

else if $A[0] \leq A[\#A-1]$ **then** *ok*

else $A[0] := A[\#A-1] \parallel A[\#A-1] := A[0]$ **fi fi**

to refine

$\forall i, j: \square A \cdot i \leq j \Rightarrow A[i] \leq A[j]$

After trying the question, scroll down to the solution.

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$$\#A \leq 1 \vee \forall i, j: 1, \dots, \#A-1 \cdot A_i \leq A_j$$