

## Algorithm: QuickSort

**Input:** A list of integers  $A$  and two indexes  $low$  and  $high$

**Output:**  $A$  ordered from smallest to largest

```
1 Procedure QuickSort( $A, low, high$ )
2   if  $low \geq high$  then
3     return  $A$ 
4    $A \leftarrow \text{Partition}(A, low, high)$ 
5    $p \leftarrow \text{PivotIndex}()$ 
6    $A \leftarrow \text{QuickSort}(A, low, p - 1)$ 
7    $A \leftarrow \text{QuickSort}(A, p + 1, high)$ 
8   return  $A$ 
```