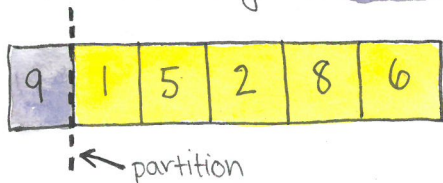
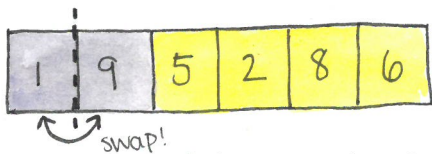


# INSERTION SORT

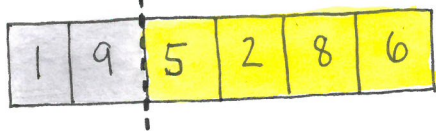
(1) Partition array into "sorted" and "unsorted" sub-arrays



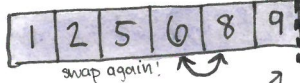
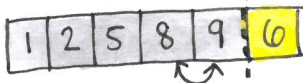
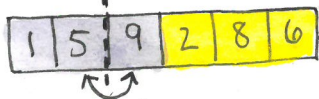
(2) If element to the right of the partition is less than the element to the left of the partition, keep swapping the element with the one to its left until the one to its left is  $\leq$  to it or we reach the start of the array



(3) Move partition one element to the right



→ Repeat until partition reaches the end of the array



partition is at the end - we're done!

## Notes:

- ★  $O(n^2)$  in worst & avg case;  $O(n)$  in best case
- ★ Faster than selection sort in practice