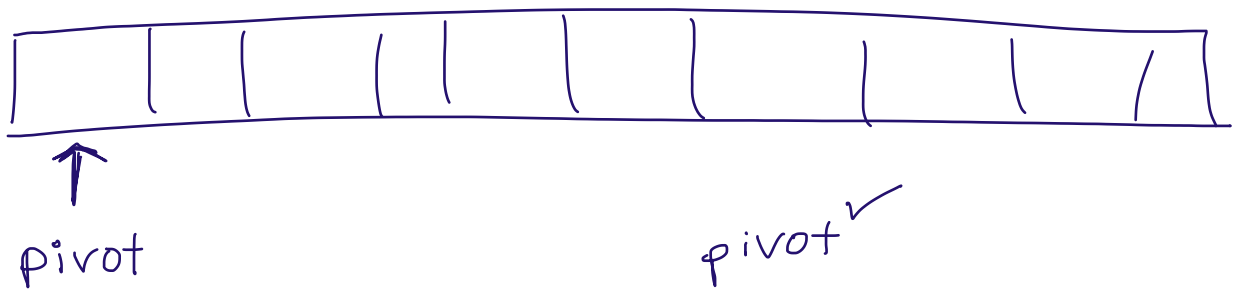
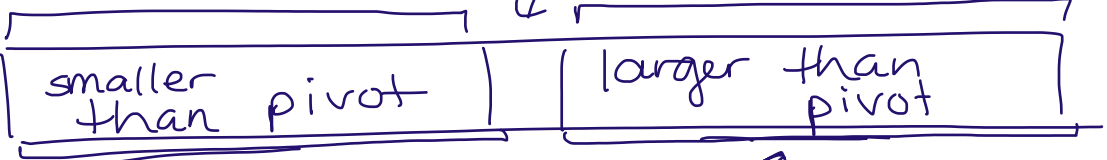
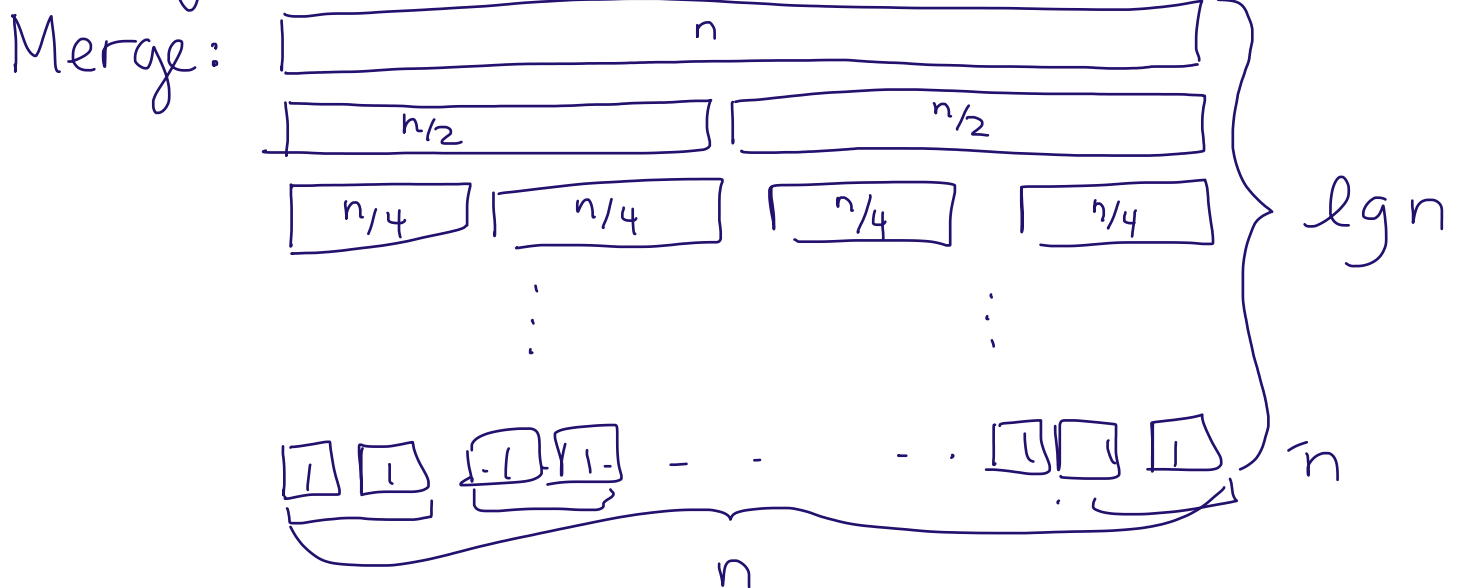


Quick sort:



Goal:  sort recursively using $\rightarrow$ until 0 or 1 element $\Rightarrow$ already sorted.

Analysis:



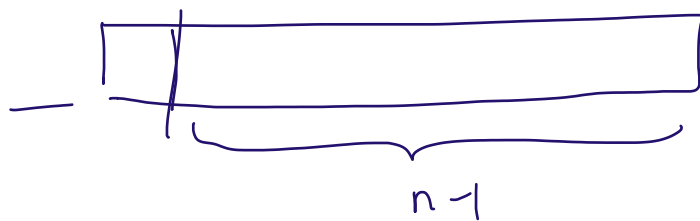
n work for each merge level

$$\Theta(n \lg n)$$

Quick sort:

- if we ^{always} choose a pivot that splits list about in half $\Rightarrow \Theta(n \lg n)$ Bestcase like Merge Sort.

- if the pivot is smallest (or largest)



sorted list.
Worst case

n levels, n work $\Rightarrow \Theta(n^2)$

in practice... QS does well.