

QUICKSORT

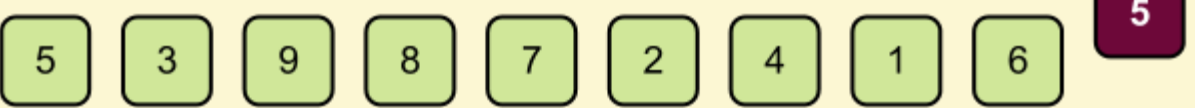
cheatsheet

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Choose a **PIVOT** and put every item with a lesser value to the left of this pivot. Greater values go to the right!



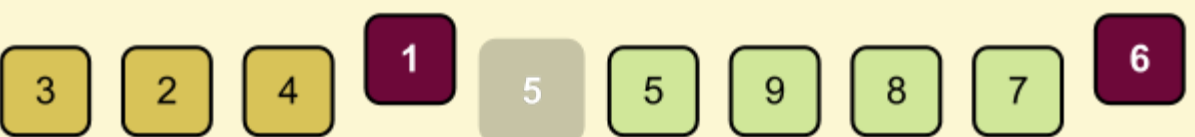
STEP 1: choose a pivot



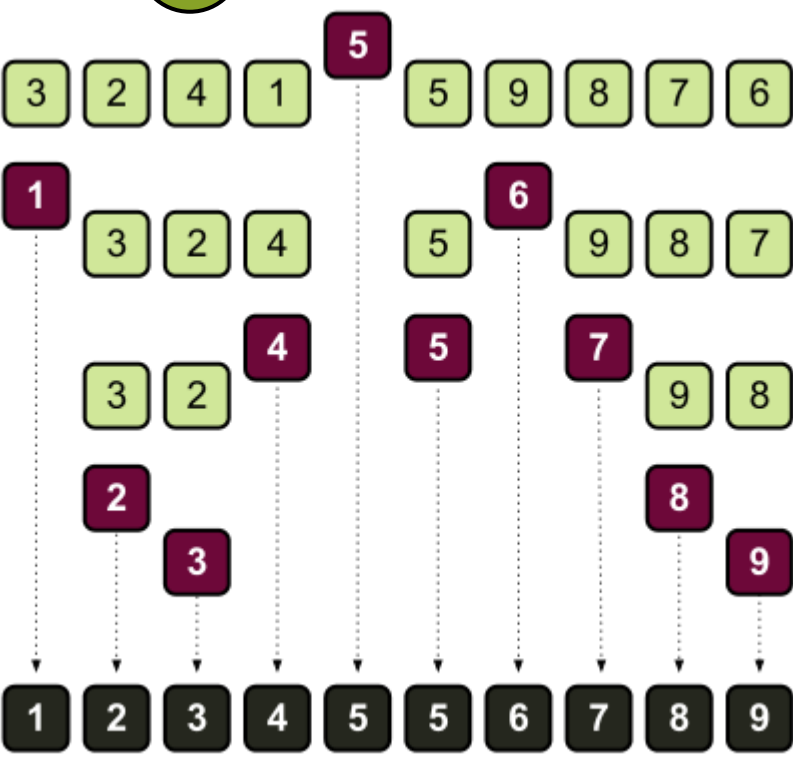
STEP 2: lesser values go to the left, greater values go to the right



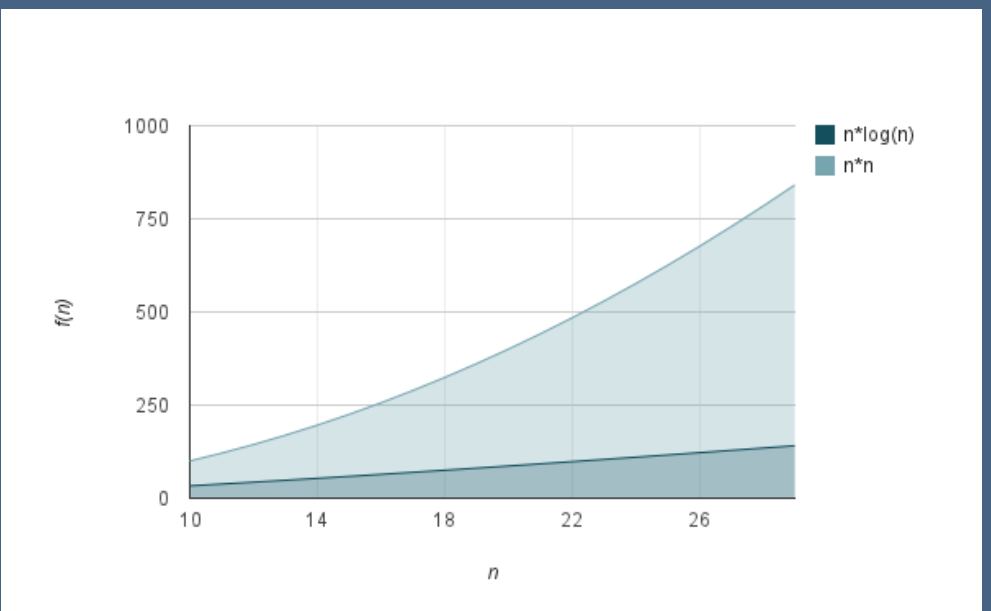
STEP 3: repeat from step 1 with the two sub-lists



CONCATENATE
the sub-lists!



COMPLEXITY average and worst case scenarios!



QUICKSORT

average

$n \cdot \log(n)$
as merge sort

worst

n^2
as bubble sort

APPLICATION

depending on the input
there might be faster algorithms than
QUICKSORT

quicksort is an **ELEGANT** general purpose sorting algorithm, but ...



you must consider that **MERGE** sort is **faster** in the worst case, while **RADIX** sort is **better** when sorting integers!