

Overview (so far)

Binary search

Merge sort

Quicksort

Selection

Iterative tree traversals

Expression evaluation  
(mainly iterative)

Divide + Conquer

Recursive (easy)

~~Re~~ Recursive (easy)

→ Iterative  
(Fun)

# Divide and Conquer <sup>looser</sup> version

Divide problem into  $k$  parts.

Do something with each part.

Combine parts.

See  
Master Theorem

~~for  $(i = n; i \geq 0; i \neq 2)$~~   $\{$   
for  $(i = n; i \geq 0; i \neq 2)$   $\}$

3 probably  $(D_n Q)$

Merge sort of array using  
conventional method.  
Merge sort requires \*  
copying data.

Quick sort is in-place.

Both are  $O(n)$   
space complexity.