

Order notation

$O, \Omega, \Theta, o, \omega$

Approximating sums

Bounding terms

Integral bounds

Sorting algorithms:

Bubble Sort

Insertion Sort

Selection Sort

Merge Sort

Heap Sort

Quick Sort

Sorting analyses:

Comparisons, Exchanges, Moves

Worst case, Best case, Average case

Recurrences

Tree method

Proof by induction

Constructive induction

Integer Addition and Multiplication