AOA PRACTICALS

ALGORITHM	TIME COMPLEXITY
INSERTION SORT	$O(n^2)$ worst $O(n)$ best
SELECTION SORT	$O(n^2)$ all 3 cases
MERGE SORT - DAC	$\theta(n*\log n)$ all 3 cases
BINARY SEARCH - DAC	$\log(n)$ avg and worst
QUICK SORT - DAC	$O(n*\log n)$ avg and best; $O(n^2)$ worst
FRACTIONAL KNAPSACK - GREEDY METHOD APPROACH	$O(n*\log(n))$
0-1 KNAPSACK PROBLEM - DYNAMIC PROGRAMMING	$O(n*W)$
DIJKSTRA'S - SINGLE SOURCE SHORTEST PATH - GREEDY METHOD APPROACH	$O(V^2)$ can be reduced to $O(E*\log(V))$
BELLMAN FORD - SINGLE SOURCE SHORTEST PATH - DYNAMIC PROGRAMMING	$O(V*E)$
FLYOD WARSHALL'S - ALL PAIR SHORTEST PATH	$O(V^3)$
LCS - LONGEST COMMON SUBSEQUENCE - DYNAMIC PROGRAMMING	$O(m*n)$ worst
N QUEEN - BACKTRACKING	$O(n!)$
SUM OF SUBSET PROBLEM - BACKTRACKING	$O(2^n)$
RABIN KARP - STRING MATCHING ALGORITHM	$O(n+m)$ average and best-case; $O(n*m)$ worst-case
KMP - PATTERN SEARCHING ALGORITHM	$O(m+n)$ both worst and best; which is linear time complexity
TSP - DYNAMIC PROG	$O(N^2 * 2^n)$
MULTISTAGE GRAPH - DYNAMIC PROG	$O(V+E)$
GRAPH COLOURING - BACKTRACKING	$O(m^v)$
NAÏVE STRING MATCHING	$O(n*m)$