

🤖 Time Complexities... 🤖

Algorithms	Best Case	Average Case	Worst Case
Binary Search	$O(1)$	$O(\log_2 n)$	$O(1)$
Sequential Search	$O(1)$	$O(n)$	$O(n)$
Quick Sort	$O(n \log n)$	$O(n^2)$	$O(n^2)$
Heap Sort	$O(n \log n)$	$O(n \log n)$	$O(n \log n)$
Merge Sort	$O(n \log n)$	$O(n \log n)$	$O(n \log n)$
Insertion Sort	$O(n)$	$O(n^2)$	$O(n)$
Bubble Sort	$O(n^2)$	$O(n^2)$	$O(n^2)$
Selection Sort	$O(n^2)$	$O(n^2)$	$O(n^2)$
Height of Complete Binary Tree	$O(\log n)$	-	-
Insertion in Heap	$O(\log n)$	-	-
Construct Heap	$O(n \log n)$	-	-
Delete form Heap	$O(\log_2 n)$	-	-
Huffman Coding	$O(n \log n)$	-	-
Prim's (matrix)	$O(n^2)$	-	-
Prim's (heap)	$O((E+V) \log V)$	-	-
Kruskal	$O(E \log E)$	-	-
BFS, DFS	$O(V+E)$	-	-
All pair Shortest	$O(V^3)$	-	-
Dijkstra	$O(V^2)$	-	-