

6.13. Summary

- A sequential search is $O(n)$ for ordered and unordered lists.
- A binary search of an ordered list is $O(\log n)$ in the worst case.
- Hash tables can provide constant time searching.
- A bubble sort, a selection sort, and an insertion sort are $O(n^2)$ algorithms.
- A shell sort improves on the insertion sort by sorting incremental sublists. It falls between $O(n)$ and $O(n^2)$.
- A merge sort is $O(n \log n)$, but requires additional space for the merging process.
- A quick sort is $O(n \log n)$, but may degrade to $O(n^2)$ if the split points are not near the middle of the list. It does not require additional space.

You have attempted 1 of 1 activities on this page

user not logged in

(TheQuickSort.html)

(KeyTerms.html)