

Vector

Big-O

Insertion (top or middle): $O(n)$

Insertion (bottom): $O(1)$

Deletion (top or middle): $O(n)$

Deletion (bottom): $O(1)$

Accessing an item: $O(1)$

Finding an item: $O(n)$

List

Big-O

Insertion (top, middle*, or bottom): $O(1)$

Deletion (top, middle*, or bottom): $O(1)$

Accessing an item (top or bottom): $O(1)$

Accessing an item (middle): $O(n)$

Finding an item: $O(n)$

*But to get to the middle, you may have to first iterate through X items, at cost $O(X)$

Set

Big-O

Insertion: $O(\log_2 n)$

Deletion: $O(\log_2 n)$

Finding an item: $O(\log_2 n)$

Unordered Set

Big-O

Insertion: $O(1)$

Deletion: $O(1)$

Finding an item: $O(1)$

Map

Big-O

Insertion: $O(\log_2 n)$

Deletion: $O(\log_2 n)$

Finding an item: $O(\log_2 n)$

Unordered Map

Insertion: $O(1)$

Deletion: $O(1)$

Finding an item: $O(1)$

Queue/Stack

Insertion: $O(1)$

Popping: $O(1)$

Examine top/front: $O(1)$