Summary Tables

These are all the tables summarizing the comparisons between different data structures and algorithms covered in this course.

Access and Modification Characteristics

	get/set	**add/remove**
Arrays	*O(1)*	*O(1 + min(i,n-i))*
LinkedList	*O(1 + min(i,n-i))*	*O(1)**
Skiplist	*O(log n)*	*O(log n)*

*given a pointer to the location, else traversal is necessary

Binary Search Tree Implementations

	find()	**add()**	**remove()**
BST	*O(n)*	*O(n)*	*O(n)*
RBST / Treaps	*O(log n)* [expected]	*O(log n)* [expected]	*O(log n)* [expected]
Scapegoat Trees	*O(log n)* [amortized]	*O(log n)* [amortized]	*O(log n)* [amortized]
2-4 / RedBlack Trees	*O(log n)* [worst case]	*O(log n)* [worst case]	*O(log n)* [worst case]

Sorted Set Implementations

Runtime

Skiplists	*O(log n)* [expected]
Treaps	*O(log n)* [expected]
Scapegoat Trees	*O(log n)* [amortized]
2-4 / RedBlack Trees	*O(log n)* [worst case]