

List Implementations			
	add( $i, x$ ) remove( $x$ )	get( $i$ )	set( $i, x$ )
ArrayStack	$\mathcal{O}(1 + n - i)^A$	$\mathcal{O}(1)$	
ArrayDeque <sup>A</sup>	$\mathcal{O}(1 + \min i, n - i)^A$	$\mathcal{O}(1)$	
DualArrayDeque <sup>A</sup>	$\mathcal{O}(1 + \min i, n - i)^A$	$\mathcal{O}(1)$	
RootishArrayList	$\mathcal{O}(1 + n - i)^A$	$\mathcal{O}(1)$	
SLList	$\mathcal{O}(1 + i)$	$\mathcal{O}(1 + i)$	
DLList	$\mathcal{O}(1 + \min i, n - i)$	$\mathcal{O}(1 + \min i, n - i)$	
SEList	$\mathcal{O}\left(\frac{1+\min\{i,n-i\}}{b}\right)^A$	$\mathcal{O}\left(\frac{1+\min\{i,n-i\}}{b}\right)^A$	
SkipList	$\mathcal{O}(\log(n))^E$	$\mathcal{O}(\log(n))^E$	

Sorted Sets	
	Anything
SkipList <sup>r</sup>	$\mathcal{O}(\log(n))$
Treap <sup>r</sup>	$\mathcal{O}(\log(n))$
ScapegoatTree	$\mathcal{O}(\log(n))$
2-4 Tree	$\mathcal{O}(\log(n))$
RB Tree	$\mathcal{O}(\log(n))$

USet Implementations		
	add( $x$ ) remove( $i$ )	find( $x$ )
ChainedHashTable	$\mathcal{O}(1)^{A,E}$	$\mathcal{O}(1)^E$
LinearHashTable	$\mathcal{O}(1)^{A,E}$	$\mathcal{O}(1)^E$

Priority Queue Implementations			
	findMin	deleteMin()	merge()
BinaryHeap <sup>A</sup>	$\mathcal{O}(1)$	$\mathcal{O}(\log(n))$	N/A
MeldableHeap <sup>R</sup>	$\mathcal{O}(1)$	$\mathcal{O}(\log(n))$	$\mathcal{O}(\log(n))$

Sorting Algorithms				
	Time Complexity			Space Complexity
	Best	Average	Worst	Worst
Quicksort	$\Omega(n \log(n))$	$\Theta(n \log(n))$	$\mathcal{O}(n^2)$	$\mathcal{O}(\log(n))$
Mergesort	$\Omega(n \log(n))$	$\Theta(n \log(n))$	$\mathcal{O}(n \log(n))$	$\mathcal{O}(1)$
Heapsort	$\Omega(n \log(n))$	$\Theta(n \log(n))$	$\mathcal{O}(n \log(n))$	$\mathcal{O}(1)$
Insertion Sort	$\Omega(n)$	$\Theta(n^2)$	$\mathcal{O}(n^2)$	$\mathcal{O}(1)$
Selection Sort	$\Omega(n^2)$	$\Theta(n^2)$	$\mathcal{O}(n^2)$	$\mathcal{O}(1)$
Radix Sort	$\Omega(nk)$	$\Theta(nk)$	$\mathcal{O}(nk)$	$\mathcal{O}(n + k)$

$A$  denotes an amortized runtime

$R$  denotes a randomized runtime

$E$  denotes an expected runtime