

	insertion			successful search			unsuccessful search			deletion		
	worst	best	avg	worst	best	avg	worst	best	avg	worst	best	avg
unsorted array	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(n)$	$\Theta(1)$	$\Theta(n)$	$\Theta(n)$	$\Theta(n)$	$\Theta(n)$	$\Theta(1)?$ $\Theta(n)?$	$\Theta(1)?$ $\Theta(n)?$	$\Theta(1)?$ $\Theta(n)?$
sorted array	$\Theta(n)$	$\Theta(n)$	$\Theta(n)$	$\Theta(\log n)$	$\Theta(1)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(n)$	$\Theta(n)$	$\Theta(n)$
unsorted linked list	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(n)$	$\Theta(1)$	$\Theta(n)$	$\Theta(n)$	$\Theta(n)$	$\Theta(n)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$
sorted linked list	$\Theta(n)$	$\Theta(1)$	$\Theta(n)$	$\Theta(n)$	$\Theta(1)$	$\Theta(n)$	$\Theta(n)$	$\Theta(1)$	$\Theta(n)$	???	???	$\Theta(1)?$ $\Theta(n)?$
hash table w/ separate chaining (w/ simple uniform hashing)	$\Theta(n)$	$\Theta(1)$	$\Theta(1+\alpha)$	$\Theta(1+\alpha)?$ $\Theta(n)$	$\Theta(1)$	$\Theta(1+\alpha)$	$\Theta(1+\alpha)?$ $\Theta(n)$	$\Theta(1)$	$\Theta(1+\alpha)$	???	???	???
<del>hash table w/ separate chaining (w/o simple uniform hashing)</del>	<del><math>\Theta(1)</math></del>	<del><math>\Theta(1)</math></del>	<del><math>\rightarrow \Theta(1)</math></del>	<del><math>\Theta(n)</math></del>	<del><math>\Theta(1)</math></del>	<del>???</del>	<del><math>\Theta(n)</math></del>	<del><math>\Theta(1)</math></del>	<del>???</del>			
hash table w/ linear probing (w/ simple uniform hashing)	$\Theta(n)$	$\Theta(1)$	$\Theta(1 + 1/(1-\alpha)^2)$	$\Theta(n)$	$\Theta(1)$	$\Theta(1 + 1/(1-\alpha))$	$\Theta(n)$	$\Theta(1)$	$\Theta(1 + 1/(1-\alpha)^2)$			
hash table w/ quadratic probing (w/ simple uniform hashing)												
hash table w/ double hashing (w/ <b>uniform</b> hashing)	$\Theta(n)$	$\Theta(1)$	$\Theta(1/(1-\alpha))$	$\Theta(n)$	$\Theta(1)$	$\Theta(1/\alpha * \ln(1/(1-\alpha)))$	$\Theta(n)$	$\Theta(1)$	$\Theta(1/(1-\alpha))$			
red-black, AVL, 234 - tree	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(1)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$			
splay tree												
	worst	best	avg	memory (avg)	memory (worst)							
selection	$\Theta(n^2)$	$\Theta(n^2)$	$\Theta(n^2)$	$\Theta(1)$								
insertion	$\Theta(n^2)$	$\Theta(n)$	$\Theta(n^2)$	$\Theta(1)$								
heapsort	$\Theta(n \log n)$	$\Theta(n)?$ $\Theta(n \log n)$	$\Theta(n \log n)$	$\Theta(1)$								
quicksort	$\Theta(n^2)$	$\Theta(n \log n)$	$\Theta(n \log n)$	$\Theta(\log n)$	$\Theta(n)$	in-place implementation: <a href="https://en.wikipedia.org/wiki/Quicksort#S">https://en.wikipedia.org/wiki/Quicksort#S</a>						
mergesort	$\Theta(n \log n)$	$\Theta(n \log n)$	$\Theta(n \log n)$	$\Theta(n)$								
bucket sort	$O(n^2)$	$\Omega(n+k)$	$\Theta(n+k)$	$O(n)$	<a href="http://bigocheatsheet.com/">http://bigocheatsheet.com/</a>							
(radix sort)	$O(nk)$	$\Omega(nk)$	$\Theta(nk)$	$O(n+k)$								