10-1   Comparisons among lists

For each of the four types of lists in the following table, what is the asymptotic worst-case running time for each dynamic-set operation listed?

	unsorted, singly linked	sorted, singly linked	unsorted, doubly linked	sorted, doubly linked
SEARCH(L, k)	$O(n)$	$O(n)$	$O(n)$	$O(n)$
INSERT(L, x)	$O(1)$	$O(n)$	$O(1)$	$O(n)$
DELETE(L, x)	$O(n)$	$O(n)$	$O(1)$	$\Theta(1)$
SUCCESSOR(L, x)	$O(1)$	$O(1)$	$O(1)$	$O(1)$
PREDECESSOR(L, x)	$O(n)$	$O(n)$	$O(1)$	$O(1)$
MINIMUM(L)	$O(n)$	$O(1)$	$\Theta(n)$	$O(1)$
MAXIMUM(L)	$O(n)$	$O(n)$	$O(n)$	$O(1)$