10.2-3 Recall that in the presence of equal elements, the RANDOMIZED-
PARTITION procedure partitions the subarray $A[p \ldots r]$ into two nonempty
subarrays $A[p \ldots q]$ and $A[q + 1 \ldots r]$ such that each element in $A[p \ldots q]$ is
less than or equal to every element in $A[q + 1 \ldots r]$. If equal elements are
present, does the RANDOMIZED-SELECT procedure work correctly?

10.3-7 Describe an $O(n)$-time algorithm that, given a set $S$ of $n$ distinct
numbers and a positive integer $k \leq n$, determines the $k$ numbers in $S$ that
are closest to the median of $S$.

11-1 For each of the four types of lists: (a) unsorted, singly linked, (b)
sorted, singly linked, (c) unsorted, doubly linked, (d) sorted, doubly linked,
what is the asymptotic worst-case running time for each dynamic-set op-
eration: (i) SEARCH($L,k$), (ii) INSERT($L,x$), (iii) DELETE($L,x$), (iv)
SUCCESSOR($L,x$), (v) PREDECESSOR($L,x$), (vi) MINIMUM($L$), (vii)
MAXIMUM($L$).

12.2-3 Argue that the expected time for a successful search with chaining
is the same whether new elements are inserted at the front or at the end of
a list. (Hint: Show that the expected successful search time is the same for
any two orderings of any list.)

12.3-1 Suppose we wish to search a linked list of length $n$, where each element
contains a key $k$ along with a hash value $h(k)$. Each key is a long character
string. How might we take advantage of the hash values when searching the
list for an element with a given key?