QUICK REVIEW

1. A list is a set of elements of the same type.

2. The length of a list is the number of elements in the list.

3. A one-dimensional array is a convenient place to store and process lists.

4. The sequential search algorithm searches a list for a given item, starting with the first element in the list. It continues to compare the search item with the other elements in the list until either the item is found or the list has no more elements left to be compared with the search item.

5. On average, the sequential search searches half of the list.

6. The sequential search is good only for very short lists.

7. To sort a list, say list, of n elements, the bubble sort algorithm works as follows:

> In a series of n - 1 iterations, the successive elements, list[index] and list[index + 1] , of list are compared. If list[index] is greater than list[index + 1] , then the elements list[index] and list[index + 1] are interchanged.

8. Binary search is much faster than the sequential search.

9. Binary search requires that the list elements are in order—that is, the list must be sorted.

10. For a list of length 1024, to determine whether an item is in the list, the binary search algorithm requires no more than 22 key comparisons.