Exercises 9.4

For Exercises 1-11, assume that the following declarations have been made:

```
vector<int> number,
            v(10,20),
            w(10);
int num;
```

Assume also that, for exercises that involve input, the following values are entered:

```
99 33 44 88 22 11 55 66 77 -1
```

Describe the contents of the given vector after the statements are executed.

3.
```
for (;;) {
   cin >> num;
   if (num < 0) break;
   number.push_back(num);
}
```

For Exercises 5-11, assume that the loop in Exercise 3 has been executed.

10.
```
vector<int>::iterator iter = number.begin();
while (*iter > 25) {
   number.erase(iter);
   iter++;
}
```

11.
```
for (vector<int>::iterator iter = number.begin();
                           iter != number.end();
                           iter++)
     w.push_back(*iter+1);
```

Exercises 11.1

2. Write an algorithm or code segment for searching a circular linked list for a given item.

3. Proceed as in Exercise 2, but assume that the list is ordered so that the elements are in ascending order.

4. Write an algorithm or code segment for locating the nth successor of an item in a circular linked list (the nth item that follows the given item in the list).

6. The *shuffle-merge* operation on two lists was defined in Exercise 9 of Section 6.4. Write an algorithm to shuffle-merge two circular-linked lists. The items in the lists are to be copied to produce the new circular-linked lists; the original lists are not to be destroyed.

7. Proceed as in Exercise 6, but do not copy the items. Just change links in the two lists (thus destroying the original lists) to produce the merged list.