**Exercises 1.5**

9. What are some of the ways in which student programs differ from real-world software?

10. Name three kinds of programming errors and give examples of each. When during program development is each likely to be detected?

12. Find some other examples of "software horror stories" and write brief reports for each, describing the error and what harm or adversity resulted from it.

**Chapter 1 Programming Problems**

4. The following function performs a linear search of a list $l$ of length $ll$ for the item $it$, returning 0 or 1 depending on whether it is not found. Many principles of good programming are violated. Describe some of these and rewrite the function in an acceptable format.

```
int LS(int l[], int ll, int it)
/* Search l for it */
{
int i=0, f=0; A:if (l[i]==it)
goto B; if (i=ll) goto
C;/*ADD 1 to i*/i++;goto A;
B:f=1;C:return f;
}
```

**Exercises 2.4**

16. Describe the output produced by the following statements

```
int * foo, * goo;

foo = new int;
*foo = 1;
cout << (*foo) << endl;
goo = new int;
*goo = 3;
cout << (*foo) << (*goo) << endl;
*foo=*goo+3;
cout << (*foo) << (*goo) << endl;
foo = goo;
*goo = 5;
cout << (*foo) << (*goo) << endl;
*foo = 7;
cout << (*foo) << (*goo) << endl;
goo = foo;
*foo = 9;
cout << (*foo) << (*goo) << endl;
```