On occasion, it may be necessary to force the compiler to store a floating constant in `float` or `long double` format. To indicate that only single precision is desired, put the letter `F` (or `f`) at the end of the constant (for example, `57.0F`). To indicate that a constant should be stored in `long double` format, put the letter `L` (or `l`) at the end (`57.0L`).

C99 C99 has a provision for writing floating constants in hexadecimal. Such a constant begins with `0x` or `0X` (like a hexadecimal integer constant). This feature is rarely used.

Q&A

Reading and Writing Floating-Point Numbers

As we've discussed, the conversion specifications `%e`, `%f`, and `%g` are used for reading and writing single-precision floating-point numbers. Values of types `double` and `long double` require slightly different conversions:

- When *reading* a value of type `double`, put the letter `l` in front of `e`, `f`, or `g`:

```
double d;

scanf("%lf", &d);
```

Q&A *Note:* Use `l` only in a `scanf` format string, not a `printf` string. In a `printf` format string, the `e`, `f`, and `g` conversions can be used to write either `float` or `double` values. (C99 legalizes the use of `%le`, `%lf`, and `%lg` in calls of `printf`, although the `l` has no effect.)

C99

- When reading or writing a value of type `long double`, put the letter `L` in front of `e`, `f`, or `g`:

```
long double ld;

scanf("%Lf", &ld);
printf("%Lf", ld);
```

7.3 Character Types

Q&A The only remaining basic type is `char`, the character type. The values of type `char` can vary from one computer to another, because different machines may have different underlying character sets.

Character Sets

ASCII character set ➤*Appendix E*

Today's most popular character set is ***ASCII*** (American Standard Code for Information Interchange), a 7-bit code capable of representing 128 characters. In ASCII, the digits 0 to 9 are represented by the codes 0110000–0111001, and the uppercase letters A to Z are represented by 1000001–1011010. ASCII is often extended