160.02 centimeters tall. That means nothing to an American, but it means that you're three whole inches taller in France. If you were 5'10" (70 inches), the program would produce the following:

```
Enter your height in inches:70
You are 186.69 centimeters tall.
```

Now, you're 186.69 centimeters tall — or 6'1½" tall! They'll swoon!

And now, the confession:

The purpose of this discussion is not to tell you how to cheat when you're programming a computer, nor is there any value in deceiving the French. For the most part, people who run programs want accurate results. However, it does show you the following:

```
height_in_cm = atoi(height_in_inches)*2.54*1.05;
```

The variable *height_in_cm* is equal to the result of three mathematical operations: First, an integer is produced based on the value of the string variable height_in_inches. That's multiplied by 2.54, and the result is multiplied again by 1.05.

Having a long mathematical formula is perfectly okay in C. You can add, multiply, divide, and whatnot all the time. To ensure that you always get the result you want, however, you must pay special attention to something called the order of precedence. That's the topic of a section later in this chapter.

✔ An equation in C can have more than two items. In fact, it can have a whole chorus line of items in it. The items must all be on the right, after the equal sign.

✔ To increase the height value by .05 (five-hundredths, or 5 percent), the number must be multiplied by 1.05. If you just multiply it by .05, you decrease it by 95 percent. Instead, you want to increase it by 5 percent, so you multiply it by 105 percent, or 1.05. I stumbled on this knowledge accidentally, by the way.

The Delicate Art of Incrementation (Or, "Just Add One to It")

The mathematical concept of "just add 1 to it" is called *incrementation*. You move something up a notch by incrementing it — for example, shifting from first to second, racking up another point in Gackle Blaster, or increasing your compensation by a dollar an hour. These are examples of incrementation.