Chapter 7. FUNCTIONS—C++'S PROGRAMMING MODULES

In this chapter you learn

- Function Review
- Function Arguments and Passing by Value
- Functions and Arrays
- Functions and Two-Dimensional Arrays
- Functions and C-Style Strings
- Functions and Structures
- Recursion
- Pointers to Functions
- Summary
- Review Questions
- Programming Exercises

Fun is where you find it. Look closely, and you can find it in functions. C++ comes with a large library of useful functions (the standard ANSI C library plus several C++ classes), but real programming pleasure comes with writing your own. In this and the next chapter you'll examine how to define functions, convey information to them, and retrieve information from them. After reviewing how functions work, this chapter concentrates on how to use functions in conjunction with arrays, strings, and structures. Finally, it touches on recursion and pointers to functions. If you've paid your C dues, you'll find much of this chapter familiar. But don't be lulled into a false sense of expertise. C++ has made several additions to what C functions can do, and the next chapter deals primarily with those. Meanwhile, let's attend to the fundamentals.

Function Review

First, let's review what you've already seen about functions. To use a C++ function, you must do the following: