

4.1 Introduction

Before writing a program to solve a problem, you should have a thorough understanding of the problem and a carefully planned approach to solving it. When writing a program, you also should understand the available building blocks and employ proven program-construction techniques. In this chapter and the next, we discuss these issues in presenting the theory and principles of structured programming. The concepts presented here are crucial in building classes and manipulating objects. We discuss Java's `if` statement in additional detail and introduce the `if...else` and `while` statements—all of these building blocks allow you to specify the logic required for methods to perform their tasks. We also introduce the compound assignment operator and the increment and decrement operators. Finally, we consider the portability of Java's primitive types.