**Chapter 1 Introduction to Programming and the Java Language**

1.1 Basic Computer Concepts

1.1.1 Hardware

1.1.2 Operating Systems

1.1.3 Application Software

1.1.4 Computer Networks and the Internet

1.2 Practice Activity: Displaying System Configuration

1.2.1 Displaying Windows Configuration Information

1.2.2 Displaying Mac OS Configuration Information

1.3 Data Representation

1.3.1 Binary Numbers

1.3.2 Using Hexadecimal Numbers to Represent Binary Numbers

1.3.3 Representing Characters with the Unicode Character Set

1.4 Programming Languages

1.4.1 High- and Low-Level Languages

1.4.2 An Introduction to Object-Oriented Programming

1.4.3 The Java Language

1.5 An Introduction to Programming

1.5.1 Programming Basics

1.5.2 Program Design with Pseudocode

1.5.3 Developing a Java Application

1.5.4 Programming Activity 1: Writing a First Java

Application

Debugging Techniques

Testing Techniques