

# 8 Classes and Objects: A Deeper Look

## Objectives

In this chapter you'll:

- See additional details of creating class declarations.
- Use the `throw` statement to indicate that a problem has occurred.
- Use keyword `this` in a constructor to call another constructor in the same class.
- Use `static` variables and methods.
- Import `static` members of a class.
- Use the `enum` type to create sets of constants with unique identifiers.
- Declare `enum` constants with parameters.
- Use `BigDecimal` for precise monetary calculations.

## Outline

1. 8.1 Introduction
2. 8.2 Time Class Case Study
3. 8.3 Controlling Access to Members
4. 8.4 Referring to the Current Object's Members with the `this` Reference

5. 8.5 Time Class Case Study: Overloaded Constructors
6. 8.6 Default and No-Argument Constructors
7. 8.7 Notes on *Set* and *Get* Methods
8. 8.8 Composition
9. 8.9 enum Types
10. 8.10 Garbage Collection
11. 8.11 `static` Class Members
12. 8.12 `static` Import
13. 8.13 `final` Instance Variables
14. 8.14 Package Access
15. 8.15 Using `BigDecimal` for Precise Monetary Calculations
16. 8.16 (Optional) GUI and Graphics Case Study: Using Objects with Graphics
17. 8.17 Wrap-Up
  
1. Summary
2. Self-Review Exercises
3. Answers to Self-Review Exercises
4. Exercises
5. Making a Difference