Key Terms

argument 116 assignment operator block-level variable casting 124 class-level variable 113 constant 106 data type 107 declaration 107 exception 134 explicit conversion format 127 format specifier 127 identifier 107 implicit conversion 123 intrinsic constant 111 lifetime 113 local variable 113

MessageBox 136 module-level variable 113 named constant 107 namespace-level variable 113 nested Try/Catch block 139 Option Explicit 121 Option Strict 121 order of precedence 119 overloading 138 scope 113 Show method 136 signature 138 string literal 110 strongly typed 122 Try/Catch block 134 variable 106

Review Questions

- 1. Name and give the purpose of five data types available in Visual Basic.
- 2. What does declaring a variable mean?
- 3. What effect does the location of a declaration statement have on the variable it declares?
- 4. Explain the difference between a constant and a variable.
- 5. What is the purpose of the Integer.Parse method? the Decimal.Parse method?
- Explain the order of precedence of operators for calculations.
- 7. What statement(s) can be used to declare a variable?
- Explain how to make an interest rate stored in RateDecimal display in RateTextBox as a percentage with three decimal digits.
- 9. What are implicit conversions? explicit conversions? When would each be used?
- 10. When should you use Try/Catch blocks? Why?
- 11. What is a message box and when should you use one?
- 12. Explain why the MessageBox. Show method has multiple signatures.
- 13. Why must you use module-level variables if you want to accumulate a running total of transactions?

Programming Exercises

3.1 Create a project that calculates the total of fat, carbohydrate, and protein calories. Allow the user to enter (in text boxes) the grams of fat, the grams of carbohydrates, and the grams of protein. Each gram of fat is nine calories; a gram of protein or carbohydrate is four calories.

Display the total calories for the current food item in a text box. Use two other text boxes to display an accumulated sum of the calories and a count of the items entered.