CHAPTER 9

VALUE-RETURNING FUNCTIONS

The answers for the Value-Returning Functions section are located at the end of the section.

1. Write a C++ statement that assigns the square root of the number 9 to a `double` variable named `sqRtAnswer`.

2. Write a C++ statement that assigns a random integer from 100 through 199 to an `int` variable named `randAnswer`.

3. Write the code for the `resetTotals` function. The function should assign the number 0.0 to the following four `double` variables: `totalNorthSales`, `totalSouthSales`, `totalEastSales`, and `totalWestSales`. It then should return the letter Y to indicate that the totals were reset. Then write the code to call the function, assigning its return value to a `char` variable named `resetComplete`.

4. Write the code for a function named `calcSalesTax`. The function receives two `double` variables *by value*. Use the following names for the parameters: `sales` and `taxRate`. The function should calculate and return the sales tax. Then write the code to call the function, passing it the variables `salesAmt` and `rate`. Assign the function's return value to a `double` variable named `tax`.

5. Write the code for the `calcSum` function, which receives two integers *by value*. The procedure should add the first integer to the second integer and then return the result as an integer. Use the following names for the parameters: `num1` and `num2`. Then write the code to call the function. Pass the `firstNum` and `secondNum` variables. Assign the function's return value to the `sum` variable.

6. Write the code for a function named `getNetIncome`. The function receives two `double` variables *by value*. Use the following names for the parameters: `revenue` and `expenses`. The function should calculate and return the net income. Then write the code to call the function. Pass the `storeRev` and `storeExp` variables. Assign the function's return value to the `netIncome` variable.

ANSWERS FOR THE VALUE-RETURNING FUNCTIONS SECTION

1.
```
sqRtAnswer = sqrt(9);
```

2.
```
randAnswer = 100 + rand() % (199 - 100 + 1);
```

3.
```
char resetTotals()
{
     totalNorthSales = 0.0;
     totalSouthSales = 0.0;
     totalEastSales = 0.0;
     totalWestSales = 0.0;
     return 'Y';
}  //end of resetTotals function
resetComplete = resetTotals();
```

4.
```
double calcSalesTax(double sales, double taxRate)
{
     return sales * taxRate;
}  //end of calcSalesTax
tax = calcSalesTax(salesAmt, rate);
```

5.
```
int calcSum(int num1, int num2)
{
     return num1 + num2;
}  //end of calcSum
sum = calcSum(firstNum, secondNum);
```

6.
```
double getNetIncome(double revenue, double expenses)
{
     double net = 0.0;
     net = revenue - expenses;
     return net;
}  //end of getNetIncome function
netIncome = getNetIncome(storeRev, storeExp);
```