

Chapter 3

Short answer

- 12. `cout << setw(8) << fixed << showpoint << setprecision(2) << divSales;`
- 13. `cout << setw(12) << fixed << setprecision(4) << totalAge;`
- 14. `cout << setw(12) << left << showpoint << setprecision(8) << population;`

Chapter 4

Short answer

- 1. In an if/else if statement, the conditions are tested until one is found to be true. The conditionally executed statement(s) are executed and the program exits the if/else if statement. In a series of if statements, all of the if statements execute and test their conditions because they are not connected.
- 2. The trailing else provides code that is executed when none of the conditions in the if/else if statement are true.
- 4. Yes. The if statement can test any value that yields a Boolean value (true or false) or a numeric value. When testing a numeric expression, a nonzero numeric value is considered true, and the value 0 is considered false.
- 6. It takes two expressions as operands and creates a single expression that is true when either of the subexpressions are true.
- 8. Indentation and spacing are for the human readers of a program, not the compiler. By indenting the conditionally executed statement you are causing it to stand out visually. This is so you can tell at a glance what part of the program the if statement executes.

Fill in the blank

- 11. false, true
- 13. true
- 14. braces { }
- 16. default
- 27. integer
- 29. break
- 30. a) 1 b) 0 c) 0 d) 1

Algo Workbench

- 31.

```
If (y==0) {  
    x=100; }
```
- 32.

```
If (y==10) {  
    x=0; }  
else {  
    x=1; }
```

```
33. If (sales <= 10000) {  
    Commission = .10; }  
Else if (sales > 10000 || sales < 15000) {  
    Commission = .15; }  
Else {  
    Commission = .20; }  
37. if (grade >= 0 && grade <= 100){  
    cout << "The number is valid."; }  
39. if(str1>str2) {  
    cout << str1 << endl; }  
else{  
    cout << str2 << endl; }
```