

***Starting Out With Visual Basic 8th edition Gaddis
Solutions Manual***

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Answers to Review Questions

Chapter 1

Fill-in-the-Blank

1. Central Processing Unit (CPU)
2. Disk drive, external disk drive, or USB drive
3. Operating systems, applications
4. Instructions
5. Programming
6. Machine language
7. Key words
8. Variable
9. Operators
10. Remark or comment
11. Syntax
12. Input
13. Output
14. Algorithm
15. Flowchart
16. Pseudocode
17. Property
18. *VIEW*
19. Auto Hide
20. *Toolbox*
21. *Solution Explorer*
22. *Properties*
23. Docked

- 24. Dock
- 25. *WINDOW*
- 26. Standard toolbar
- 27. *Designer*
- 28. *Toolbox*
- 29. *HELP*
- 30. ToolTip

Short Answer

- 1. Main memory (RAM) is usually a volatile type of memory, used only for temporary storage. When the computer is turned off, the contents of main memory are erased. Secondary storage is a type of memory that can hold data for long periods of time – even when there is no power to the computer. Frequently used programs are stored in secondary memory, and loaded into main memory as needed.
- 2. An operating system is a set of programs that manages the computer's hardware devices and controls their processes. Application software refers to programs that make the computer useful to the user. These programs solve specific problems, or perform general operations that satisfy the needs of the user. Word processing, spreadsheet, and database packages are all examples of application software.
- 3. An object is an item in a program that contains data and has the ability to perform operations.
- 4. A control is a specific type of object that usually appears in a program's graphical user interface.
- 5. Event-driven programs respond to events. An event is an action that takes place, such as the clicking of a button with the mouse. When an event occurs, the application responds by executing a special type of method known as an event handler.
- 6. A Label control is used to display text information. The user cannot enter a value into a Label control, or change the value it displays. The user can, however, enter information into a TextBox control. It is appropriate to use a Label control when displaying data that the user cannot change. It is appropriate to use a TextBox control when the user must enter data.
- 7. Creating the GUI elements that make up the application's user interface, setting the properties of the GUI elements, and writing programming language statements that respond to events and perform other operations.
- 8. A form is a window, onto which other controls may be placed.
- 9. Control names must start with a letter. The remaining characters may be letters, digits, or underscore characters only. You cannot use spaces, special symbols, or punctuation characters in a control name.

10. Words that have a special meaning in a programming language. Keywords may only be used for their intended purpose.
11. Comments, or remarks, are notes that explain the purpose of statements or sections of code. Although comments, or remarks, are part of an application's code, they are ignored by the compiler. They are intended for the programmer or others who might read the application's code.
12. Rules that must be followed when constructing a method. Syntax dictates how keywords, operators, and programmer-defined names may be used.
13. A syntax error is the incorrect use of a programming language element, such as a keyword, operator, or programmer-defined name.
14. A logic error is a mistake that does not prevent an application from executing. It causes the application to produce incorrect results.
15. Operators perform operations on one or more operands. An operand is usually a piece of data, such as a number. Examples of operators include +, -, *, and /.
16. A flowchart is a diagram that graphically depicts the flow of a method. It uses boxes and other symbols to represent each step.
17. Pseudocode is a cross between human language and a programming language. Although the computer can't understand pseudocode, programmers often find it helpful to plan an algorithm in a language that's almost a programming language but still very readable by humans.
18. VB will assign the default name `Label1` to the first Label control and `TextBox1` to the first TextBox control.
19. The Text property
20. When Auto Hide is turned on, a window is displayed only as a tab along one of the edges of the Visual Studio window. This feature gives you more room to view your application's forms and code.
 - To set a window to Auto Hide, right-click its caption bar and select Auto Hide.
 - To remove the Auto Hide feature from a window, click its tab to display it; then right-click its caption bar and deselect Auto Hide.
 - Alternatively, you can click the little pushpin icon on the window's caption bar to turn Auto Hide on and off.
21. The *Toolbox* window contains buttons and icons that let you build rich visual interfaces in Windows desktop applications.
22. The standard toolbar contains buttons that execute frequently used commands. All commands executed by the toolbar may also be executed from a menu, but the standard toolbar gives you quicker access to them.
23. A ToolTip is a small rectangular box that pops up when you hover the mouse over a button on the toolbar or in the *Toolbox* window for a few seconds. The pop up message contains a short description of the button's purpose.

24. If you do not see the *Solution Explorer* window, click *VIEW* on the menu bar, and select *Solution Explorer* from the list. You can also press *Ctrl + Alt + L* on the keyboard.
25. If you do not see the *Properties* window, click *VIEW* on the menu bar, and select *Properties* from the list. You can also press *F4* on the keyboard.
26.
 - 1 – The *Toolbox* window
 - 2 – The *Designer* window
 - 3 – The *Solution Explorer* window
 - 4 – The *Properties* window

What Do You Think?

1.
 - a. `txtUserName` is legal.
 - b. `2001sales` is illegal because it starts with a number.
 - c. `lblUserAge` is illegal because it has a space.
 - d. `txtName/Address` is illegal because it contains the `/` character.
 - e. `btnCalcSubtotal` is legal.
2.
 - a. a button
 - b. a label
 - c. a text box
3.
 - a. `lblLastName`
 - b. `btnCalcInterestRate`
 - c. `lblOrderTotal`
 - d. `btnClear`
4.
 - a. `txtPriceEach` is a text box for entering an item's price.
 - b. `txtQuantity` is a text box for entering the quantity of an item being purchased.
 - c. `txtTaxRate` is a text box for entering the tax rate.
 - d. `btnCalcSale` is a button that calculates the total of a sale when clicked with the mouse.
 - e. `lblSubTotal` is a label that displays a sale's subtotal.
 - f. `lblTotal` is a label that displays a sale's total.