

***Starting Out with Java Early Objects 6th edition
Gaddis Test Bank***

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Starting Out with Java Early Objects 6e (Gaddis)

Chapter 2 Java Fundamentals

TRUE/FALSE

1. Programming style includes techniques for consistently putting spaces and indentation in a program to help create visual cues.

ANS: T

2. Both character and string literals can be assigned to a **char** variable.

ANS: F

3. A variable's scope is the part of the program that has access to that variable.

ANS: T

4. Named constants are initialized with a value and that value cannot change during the execution of the program.

ANS: T

5. When you call one of the **Scanner** class's methods to read a primitive value, such as **nextInt** or **nextDouble**, and then call the **nextLine** method to read a string, an annoying and hard-to-find problem can occur.

ANS: T

6. A message dialog is a quick and simple way to ask the user to enter data.

ANS: F

7. The Java API provides a class named **Math** that contains numerous methods which are useful for performing complex mathematical operations.

ANS: T

8. Unlike a console program, a program that uses the **JOptionPane** does not automatically stop executing when the end of the **main** method is reached.

ANS: T

9. The **System.out.printf** method allows you to format output in a variety of ways.

ANS: T

10. If you use a **flag** in a format specifier, you must write the flag before the field width and the precision.

ANS: T

MULTIPLE CHOICE

1. Which of the following is a value that is written into the code of a program?
- a. a literal
 - b. an assignment statement
 - c. an operator
 - d. a variable

ANS: A

2. Which of the following is a named storage location in the computer's memory?
- a. a literal
 - b. an operator
 - c. a constant
 - d. a variable

ANS: D

3. Which of the following is not a valid Java comment?
- a. **/** Comment one */**
 - b. ***/ Comment two /***
 - c. **// Comment three**
 - d. **/* Comment four */**

ANS: B

4. A Java source file must be saved with the extension
- a. **.java**
 - b. **.javac**
 - c. **.src**
 - d. **.class**

ANS: A

5. Which of the following is not a rule that must be followed when naming identifiers?
- a. After the first character, you may use the letters a-z, A-Z, an underscore, a dollar sign, or the digits 0-9.
 - b. Identifiers can contain spaces.
 - c. Uppercase and lowercase characters are distinct.
 - d. The first character must be one of the letters a-z, A-Z, an underscore, or a dollar sign.

ANS: B

6. Character literals are enclosed in _____ and string literals are enclosed in _____.
- a. single quotes, double quotes
 - b. double quotes, single quotes

- c. single quotes, single quotes
- d. double quotes, double quotes

ANS: A

7. Variables are classified according to their
- a. names
 - b. values
 - c. locations
 - d. data types

ANS: D

8. What is the result of the following expression?

17 % 3 * 2 - 12 + 15

- a. **105**
- b. **12**
- c. **7**
- d. **8**

ANS: C

9. What is the result of the following expression?

10 + 5 * 3 - 20

- a. **-5**
- b. **-50**
- c. **5**
- d. **25**

ANS: C

10. In the following Java statement, what value is stored in the variable **name**?

String name = "John Doe";

- a. **"name"**
- b. the memory address where **"John Doe"** is located
- c. the memory address where **name** is located
- d. **John Doe**

ANS: B

11. What is the value of **z** after the following statements have been executed?

```
int x = 4, y = 33;  
double z;  
z = (double) (y / x);
```

- a. **8.25**
- b. **4**
- c. **0**
- d. **8.0**

ANS: D

12. What output will be displayed as a result of executing the following code?

```
int x = 5, y = 20;
x += 32;
y /= 4;
System.out.println("x = " + x + ", y = " + y);
```

- a. **x = 160, y = 80**
- b. **x = 32, y = 4**
- c. **x = 37, y = 5**
- d. **x = 9, y = 52**

ANS: C

13. Which of the following statements will correctly convert the data type, if **x** is a **float** and **y** is a **double**?

- a. **x = float y;**
- b. **x = <float>y;**
- c. **x = (float)y;**
- d. **x = y;**

ANS: C

14. Which of the following statements is invalid?

- a. **double r = 9.4632E15;**
- b. **double r = 9.4632e15;**
- c. **double r = 2.9X106;**
- d. **double r = 326.75;**

ANS: C

15. To print "**Hello, world**" on the monitor, which of the following Java statements should be used?

- a. **System.out.println("Hello, world");**
- b. **System Print = "Hello, world";**
- c. **SystemOutPrintln('Hello, world');**
- d. **system.out.println>Hello, world);**

ANS: A

16. The **boolean** data type may contain which of the following range of values?

- a. **-128 to + 127**
- b. **true or false**
- c. **-2,147,483,648 to +2,147,483,647**
- d. **-32,768 to +32,767**

ANS: B

17. Variables of the **boolean** data type are useful for

- a. evaluating conditions that are either true or false
- b. working with small integers
- c. working with very large integers
- d. evaluating scientific notation

ANS: A

18. What would be displayed as a result of executing the following code?

```
int x = 578;  
System.out.print("There are " +  
x + 5 + "\n" +  
"hens in the hen house.");
```

- a. **There are 583
hens in the hen house.**
- b. **There are 5785
hens in the hen house.**
- c. **There are x5\nhens in the hen house.**
- d. **There are 5785 hens in the hen house.**

ANS: B

19. What would be displayed as a result of executing the following code?

```
final int x = 22, y = 4;  
y += x;  
System.out.println("x = " + x + ", y = " + y)
```

- a. **x = 22, y = 26**
- b. **x = 22, y = 4**
- c. **x = 22, y = 88**
- d. Nothing. There is an error in the code.

ANS: D

20. What would be displayed as a result of executing the following code?

```
int x = 15, y = 20, z = 32;  
x += 12;  
y /= 6;  
z -= 14;  
System.out.println("x = " + x +  
                    ", y = " + y +  
                    ", z = " + z);
```

- a. **x = 27, y = 3.333, z = 18**
- b. **x = 27, y = 2, z = 18**
- c. **x = 37, y = -14, z = 4**
- d. **x = 27, y = 3, z = 18**

ANS: D

21. What is the value of **z** after the following code is executed?

```
int x = 5, y = 28;  
float z;  
z = (float) (y / x);
```

- a. **5.6**
- b. **3.0**
- c. **5.0**
- d. **5.60**

ANS: C

22. Which of the following statements correctly creates a **Scanner** object for keyboard input?

- a. `Scanner kbd = new Scanner(System.keyboard);`
- b. `Scanner keyboard = new Scanner(System.in);`
- c. `Scanner keyboard(System.in);`
- d. `Keyboard scanner = new Keyboard(System.in);`

ANS: B

23. Which **Scanner** class method reads a **String**?

- a. `nextLine`
- b. `charAt`
- c. `nextString`
- d. `getLine`

ANS: A

24. Which statement tells the compiler where to find the **JOptionPane** class and makes it available to your program?

- a. `import javax.swing.JOptionPane;`
- b. `import Java.Swing.JOptionPane;`
- c. `import JOptionPane;`
- d. `import javax.JOptionPane;`

ANS: A

25. The _____ method is used to display a message dialog.

- a. `showMessageDialog`
- b. `messageDialog`
- c. `messageDialogShow`
- d. `showDialog`

ANS: A

26. The primitive data types only allow a(n) _____ to hold a single value.

- a. class
- b. literal
- c. object
- d. variable

ANS: D

27. A Java program must have at least one of the following:

- a. a comment
- b. a class definition
- c. a `System.out.println();` statement
- d. a variable declaration

ANS: B

28. A(n) _____ is a dialog box that prompts the user for input.

- a. input box

- b. user prompt
- c. adaptive dialog
- d. input dialog

ANS: D

29. The simplest way to use the **System.out.printf** method is
- a. with a format string and one format specifier
 - b. with only a format string and no additional arguments
 - c. with a format string and one or more format specifiers
 - d. with only one format specifier and no format string

ANS: B

30. If you want to use the **System.out.printf** method to print a string argument , use the _____ format specifier.
- a. **%d**
 - b. **%b**
 - c. **%f**
 - d. **%s**

ANS: D