

Chapter 2 Introduction to Java Applications

Section 2.2 Your First Program in Java: Printing a Line of Text

2.2 Q1: End-of-line comments that should be ignored by the compiler are denoted using

- a. Two forward slashes (//).
- b. Three forward slashes (///).
- c. A slash and a star (/*).
- d. A slash and two stars (/**).
- e. **ANS:** a. Two forward slashes (//).

2.2 Q2: Which of the following is *not* a valid Java identifier?

- a. my Value
- b. \$_AAA1
- c. width
- d. m_x

ANS: a. my Value (Identifiers may not contain blanks).

2.2 Q3: Which of the following *cannot* cause a syntax error to be reported by the Java compiler?

- a. Mismatched { }
- b. Missing */ in a comment that begins with /*
- c. Missing ;
- d. An extra blank line.

ANS: d. Extra blank lines.

2.2 Q4: Which of the following does *not* contain a syntax error?

- a. System.out.println('Hello world!');
- b. System.out.println("Hello
world!");
- c. System.out.println("Hello world!");
- d. System.out.println(Hello world!);

ANS: c. System.out.println("Hello world!");

Compiling and Executing Your First Java Application

2.2 Q5: Which command compiles the Java source code file `Welcome.java`?

- a. cd Welcome.java
- b. javac Welcome.java
- c. java Welcome.java
- d. compile Welcome.java

ANS: b. javac Welcome.java

2.2 Q6: Which command executes the Java class file `Welcome.class`?

- a. javac Welcome.class
- b. java Welcome.class
- c. java Welcome
- d. run Welcome.class

ANS: c. java Welcome

Section 2.3 Modifying Your First Java Program

Displaying a Single Line of Text with Multiple Statements

2.3 Q1: Which is the output of the following statements?

```
System.out.print( "Hello ");  
System.out.println( "World" );
```

- a. Hello World
- b. HelloWorld
- c. Hello
World
- d. World
Hello

ANS: a. Hello World

Displaying Multiple Lines of Text with a Single Statement

2.3 Q2: Which of the following is the *escape character*?

- a. *
- b. \
- c. \n
- d. "

ANS: b. \

2.3 Q3: Which of the following statements will print a single line containing

"hello there"?

- a. System.out.println("hello");
System.out.println(" there");
- b. System.out.println("hello" , " there");
- c. System.out.println("hello");
System.out.print(" there");
- d. System.out.print("hello");
System.out.println(" there");

ANS: d. System.out.print("hello");
System.out.println(" there");

2.3 Q4: Which of the following escape sequences represents a *carriage return*?

- a. \n.
- b. \r.
- c. \cr.
- d. \c.

ANS: b. \r.

2.3 Q5: Which of the following statements would display the phrase Java is fun?

- a. System.out.println("hellois fun\rJava ");
- b. System.out.println('Java is fun');
- c. System.out.println("\"Java is fun\"");
- d. System.out.println(Java is fun);

ANS: a. System.out.println("hellois fun\rJava ");

Section 2.4 Displaying Text with `printf`

2.4 Q1: When method `printf` requires multiple arguments, the arguments are separated with _____.

- a. colons (:).
- b. semicolons (;).
- c. commas (,).
- d. periods (.)

ANS: c. commas (,).

2.4 Q2: Which of the following statement displays `Hello World`?

- a. `System.out.printf( "%2s", "Hello " "World" );`
- b. `System.out.printf( "%s %s", "Hello", "World" );`
- c. `System.out.printf( "%s%s", "Hello, World" );`
- d. `System.out.printf( "s% s%", "Hello", "World" );`

ANS: b. `System.out.printf( "%s %s", "Hello", "World" );`

Section 2.5 Another Application: Adding Integers

2.5 Q1: All `import` declarations *must* be placed

- a. inside the class declaration's body.
- b. before the class declaration.
- c. after the class declaration.
- d. all of the above will work.

ANS: b. before the class declaration.

2.5 Q2: Which of the following is a variable declaration statement?

- a. `int total;`
- b. `import java.util.Scanner;`
- c. `public static void main( String args[] )`
- d. `// first string entered by user`

ANS: a. `int total;`

2.5 Q3: A(n) _____ enables a program to read data from the user.

- a. `printf`.
- b. `import` declaration.
- c. `Scanner`.
- d. `main`.

ANS: c. `Scanner`.

2.5 Q4: Which of the following is *not* a Java primitive type?

- a. `char`
- b. `byte`
- c. `real`
- d. `double`

ANS: c. `real`

2.5 Q5: The format specifier _____ is a placeholder for an `int` value?

- a. `%a`
- b. `%d`
- c. `%int`
- d. `%s`

ANS: b. `%d`

Section 2.6 Memory Concepts

2.6 Q1: Which of the following statements does *not* alter a memory location?

- a. `int a;`
- b. `number = 12;`
- c. `y = y + 2;`
- d. `width = Integer.parseInt(input);`

ANS: a. `int a;`

Section 2.7 Arithmetic

2.7 Q1: What is the value of `result` after the following Java statements execute?

```
int a, b, c, d, result;  
a = 4;  
b = 12;  
c = 37;  
d = 51;  
result = d % a * c + a % b + a;
```

- a. 119
- b. 51
- c. 127
- d. 59

ANS: a. 119

2.7 Q2: Which of the following is *not* an arithmetic operator?

- a. `+`
- b. `-`
- c. `.`
- d. `%`

ANS: c. `.`

Section 2.8 Decision Making: Equality and Relational Operators

2.8 Q1: What will be output after the following Java statements have been executed?

```
int a, b, c, d;  
a = 4;
```

```

b = 12;
c = 37;
d = 51;

if ( a < b )
    System.out.println( "a < b" );

if ( a > b )
    System.out.println( "a > b" );

if ( d <= c )
    System.out.println( "d <= c" );

if ( c != d )
    System.out.println( "c != d" );

```

- a. a < b
c != d
- b. a < b
d <= c
c != d
- c. a > b
c != d
- d. a < b
c < d
a != b

ANS: a. a < b
c != d

2.8 Q2: Which of the following is *not* a compilation error?

- a. Neglecting to initialize a local variable in a method before it is used.
- b. Placing a semicolon at the end of the first line of an `if` statement.
- c. Omitting the left and right parenthesis for the condition of an `if` statement.
- d. All are compilation errors.

ANS: b. Placing a semicolon at the end of the first line of an `if` statement.

2.8 Q3: Each of the following is a relational or equality operator except:

- a. <=
- b. !=
- c. ==
- d. >

ANS: b. !=