

1. Which of the following refers to a collection of programs that a computer executes?

- A. source code
- B. instructions
- C. assembler
- D. software Answer

Section Ref 1.1 Computer Programs
Title Which (term) refers to a collection of programs?
Difficulty Easy
id testbank-bjlo-2-ch01-1

2. Computers are machines that _____.

- A. design computer programs
- B. execute programs Answer
- C. are imprecise and slow
- D. carry out a very narrow range of tasks

Section Ref 1.1 Computer Programs
Title What kind of machines are computers?
Difficulty Easy
id testbank-bjlo-2-ch01-2

3. Computer programming is _____.

- A. the act of designing and implementing a computer program Answer
- B. the storage of data in the form of words and pictures
- C. the collection of peripheral devices connected to a computer
- D. the speed with which a computer operates

Section Ref 1.1 Computer Programs
Title What is computer programming?
Difficulty Easy
id testbank-bjlo-2-ch01-3

4. Consider the following statements regarding computers:

- I. Computers can execute a large number of instructions in a fraction of a second.
- II. Computer application areas mainly target the research and scientific communities.
- III. The physical components of a computer constitute its hardware.
- IV. Unlike humans, a computer never gets bored or exhausted when performing repetitive tasks.

Which of the statements are correct?

- A. I, III, and IV only Answer
- B. I and III only
- C. III only
- D. I, II, and III only

Section Ref 1.1 Computer Programs
Title Which statement(s) regarding computers is (are) correct?
Difficulty Easy
id testbank-bjlo-2-ch01-4

5. Consider the following statements about computer programs:

- I. Computer programs can be written by someone who has a basic knowledge of operating a computer.
- II. Computer programs can complete complex tasks quickly.
- III. Large and complex computer programs are generally written by a group of programmers.
- IV. Computer programs are composed of extremely primitive operations.

Which of the statements are correct?

- A. I, II, III and IV
- B. I and IV
- C. II and III only
- D. II, III, and IV only Answer

Section Ref	1.1 Computer Programs
Title	Which statement(s) regarding computer programs is (are) correct?
Difficulty	Easy
id	testbank-bjlo-2-ch01-5

6. Writing a computer game in Java that has graphics, motion, and sound effects _____.

- A. cannot be done in the Java programming language
- B. is simple because of the power of Java
- C. requires a team of skilled programmers Answer
- D. is more mundane than most programs

Section Ref	1.1 Computer Programs
Title	What is required to write a computer game in Java?
Difficulty	easy
id	testbank-bjlo-2-ch01-6

7. The Central Processing Unit is primarily responsible for _____.

- A. interconnecting computers that are separated by distance
- B. ensuring data persists when electrical power is turned off
- C. performing program control and data processing Answer
- D. enabling a human user to interact with the computer

Section Ref	1.2 The Anatomy of a Computer
Title	What is the function of a CPU?
Difficulty	Easy
id	testbank-bjlo-2-ch01-7

8. A single silicon chip made from potentially millions of transistors is called _____.

- A. an Optical Disk (such as a DVD)
- B. secondary Storage
- C. a Hard Disk
- D. a Central Processing Unit (CPU) Answer

Section Ref	1.2 The Anatomy of a Computer
Title	What is a chip with transistors called?
Difficulty	Easy
id	testbank-bjlo-2-ch01-8

9. An example of an output device that interfaces between computers and humans is _____.

- A. a speaker Answer
- B. a mouse
- C. a microphone
- D. a keyboard

Section Ref 1.2 The Anatomy of a Computer
Title What is an example of an output device that interfaces between humans and computers?
Difficulty Easy
id testbank-bjlo-2-ch01-9

10. An example of an input device that interfaces between computers and humans is _____.

- A. a monitor
- B. a microphone Answer
- C. a printer
- D. a speaker

Section Ref 1.2 The Anatomy of a Computer
Title What is an example of an input device that interfaces between humans and computers?
Difficulty Easy
id testbank-bjlo-2-ch01-10

11. Programs that are not running are usually stored _____.

- A. in secondary storage Answer
- B. on a backup device that is in a different physical location from the computer
- C. on the computer monitor
- D. in the CPU's memory

Section Ref 1.2 The Anatomy of a Computer
Title Where are programs usually stored when they are not running?
Difficulty Easy
id testbank-bjlo-2-ch01-11

12. When a program begins to run, _____.

- A. it is moved from the CPU's memory to hard disk
- B. it is moved from DVD to hard disk
- C. it is moved to the CPU's memory Answer
- D. it must be connected to a computer network

Section Ref 1.2 The Anatomy of a Computer
Title What happens when a program begins to run?
Difficulty Easy
id testbank-bjlo-2-ch01-12

13. Which of the following typically provides data persistence without electricity?

- I. The CPU's memory
- II. The hard disk
- III. Secondary storage

- A. I, II, and III
- B. I and III only
- C. I and II only

D. II and III only Answer

Section Ref 1.2 The Anatomy of a Computer
Title Which storage type provides data persistence without electricity?
Difficulty Easy
id testbank-bjlo-2-ch01-13

14. In order for the ENIAC computer to be re-programmed, _____.

- A. vacuum tubes needed to be replaced
- B. wires needed to be plugged into a different wiring configuration Answer
- C. the programmer needed to load the program from cards
- D. the programmer needed to download the new code over the computer network

Section Ref 1.2 The Anatomy of a Computer
Title What is true about the ENIAC being re-programmed?
Difficulty easy
id testbank-bjlo-2-ch01-14

15. Consider a scenario in which you develop a Java program on a computer that has a Pentium processor. What step should you take to run the same Java program on a computer that has a different processor?

- A. Load the program in a browser on the computer that has a different processor.
- B. The compiled Java machine language instructions can be run on any processor that has a Java Virtual Machine. Answer
- C. You cannot run the program on a computer with a different processor because high-level programming languages are machine dependent.
- D. Develop the same program again on the computer that has a different processor and recompile the program.

Section Ref 1.3 The Java Programming Language
Title What step should you take to run a program in a high-level language on a (different) processor?
Difficulty Medium
id testbank-bjlo-2-ch01-15

16. High-level programming languages _____.

- A. are made up primarily of ones and zeros
- B. are independent of the underlying hardware Answer
- C. use syntax that is close to the underlying hardware's instruction set
- D. are not standardized

Section Ref 1.3 The Java Programming Language
Title What are the characteristics of high-level programming languages?
Difficulty Easy
id testbank-bjlo-2-ch01-16

17. Which one of the following translates high-level descriptions into machine code?

- A. assembler
- B. compiler Answer
- C. editor
- D. linker

Section Ref 1.3 The Java Programming Language
Title Which translates high-level descriptions into machine code?
Difficulty Easy
id testbank-bjlo-2-ch01-17

18. Computer scientists have devised _____ that allow programmers to describe tasks in words that are closer to the syntax of the problems being solved.

- A. compilers
- B. embedded systems
- C. high-level programming languages Answer
- D. machine instructions

Section Ref 1.3 The Java Programming Language
Title What are the tools used to describe and solve high-level problems?
Difficulty Easy
id testbank-bjlo-2-ch01-18

19. Small applications written in the Java programming language that can be located anywhere on the Internet are called _____.

- A. applets Answer
- B. compilers
- C. embedded systems
- D. virtual machines

Section Ref 1.3 The Java Programming Language
Title What are small applications written in Java called?
Difficulty Easy
id testbank-bjlo-2-ch01-19

20. What is one of the benefits of using a high-level programming language like Java?

- A. Problems solved in a high-level language are independent of the underlying computer hardware. Answer
- B. Statements in the high-level language are just like English.
- C. Its syntax is very similar to the hardware instruction set.
- D. No tools other than a text editor are required for programming.

Section Ref 1.3 The Java Programming Language
Title What are the benefits of using high-level languages?
Difficulty Easy
id testbank-bjlo-2-ch01-20

21. Because Java was designed for the Internet, which two of its attributes make it suitable for beginning programmers?

- A. Efficiency and security
- B. Safety and portability Answer
- C. Safety and security
- D. Efficiency and portability

Section Ref 1.3 The Java Programming Language
Title What are two important Java attributes?
Difficulty Easy
id testbank-bjlo-2-ch01-21

22. In order to run Java programs on a computer, the computer needs to have software called a(n) _____.

- A. assembler
- B. virtual machine Answer
- C. windows
- D. debugger

Section Ref 1.3 The Java Programming Language
Title Software needed to run Java on a computer
Difficulty Medium
id testbank-bjlo-2-ch01-22

23. In order to translate a Java program to a class file, the computer needs to have software called a(n) _____.

- A. assembler
- B. virtual machine
- C. compiler Answer
- D. debugger

Section Ref 1.3 The Java Programming Language
Title Software needed to translate Java source code
Difficulty Medium
id testbank-bjlo-2-ch01-23

24. A Java virtual machine is _____.

- A. firmware
- B. hardware
- C. applet
- D. software Answer

Section Ref 1.3 The Java Programming Language
Title A Java virtual machine is ____
Difficulty Medium
id testbank-bjlo-2-ch01-24

25. The language developed by Sun Microsystems that became the Java programming language was originally designed to be simple, secure, and _____.

- A. environmentally friendly, or "green"
- B. usable for many different processor types Answer
- C. available over the Internet
- D. easy to program on a phone

Section Ref 1.3 The Java Programming Language
Title The Java programming language was designed to be ____?
Difficulty easy
id testbank-bjlo-2-ch01-25

26. The term applet refers to _____.

- A. a Java program that runs as a C++ program
- B. any Java program
- C. a Java program that runs within a web browser Answer
- D. a Java program that runs within an Integrated Development Environment (IDE)

Section Ref 1.3 The Java Programming Language
Title What is an "applet"?
Difficulty easy
id testbank-bjlo-2-ch01-26

27. Programmers have embraced Java over its closest rival, C++, mainly because _____.

- A. it is easier to use Answer
- B. it is easier to debug
- C. it is cheaper to use

D. most computers only understand Java

Section Ref	1.3 The Java Programming Language
Title	Why have programmers embraced Java?
Difficulty	easy
id	testbank-bjlo-2-ch01-27

28. How does Java achieve portability?

- A. Java programs are compiled to instructions for a virtual machine. Answer
- B. Java programs must be re-compiled on each platform where they are to run.
- C. Java programs are interpreted.
- D. Java programs are compiled to instructions in the C++ programming language.

Section Ref	1.3 The Java Programming Language
Title	How does Java achieve portability?
Difficulty	medium
id	testbank-bjlo-2-ch01-28

29. A Java Virtual Machine is _____.

- A. a theoretical machine to help understand the computational complexity of algorithms
- B. a kind of computer hardware that is embedded into the CPUs of all computers using Java
- C. a library package that extends the capability of the Java programming language
- D. a program that simulates a real CPU Answer

Section Ref	1.3 The Java Programming Language
Title	What is a Java Virtual Machine?
Difficulty	easy
id	testbank-bjlo-2-ch01-29

30. The Java programming language is itself relatively simple, but also contains a vast set of _____.

- A. cross-platform scripting languages
- B. syntactical variations
- C. library packages Answer
- D. program templates

Section Ref	1.3 The Java Programming Language
Title	Java also contains a vast set of _____?
Difficulty	easy
id	testbank-bjlo-2-ch01-30

31. A Java class with the name `Printer` has to be saved using the source file name:

- A. `Printer.txt`
- B. `printer.txt`
- C. `Printer.java` Answer
- D. `printer.java`

Section Ref	1.4 Becoming Familiar with Your Programming Environment
Title	Java source file names
Difficulty	Medium
id	testbank-bjlo-2-ch01-31

32. An integrated development environment (IDE) bundles tools for programming into a unified application. What kinds of tools are usually included?

- A. a web browser

- B. source files and class files
- C. an editor and a compiler Answer
- D. presentation tools

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title What kinds of tools are included in an IDE?
Difficulty Easy
id testbank-bjlo-2-ch01-32

33. What is the difference between an editor and a compiler?

- A. An editor allows program files to be written and stored; a compiler converts program files into an executable program. Answer
- B. An editor converts program files into an executable program; a compiler allows program files to be written and stored.
- C. An editor allows program files to be written and stored; a compiler produces an indexed database of terms and keywords.
- D. An editor allows program files to be written and stored; a compiler produces an organized list of files.

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title What is the difference between an editor and a compiler?
Difficulty Easy
id testbank-bjlo-2-ch01-33

34. Suppose you examine a simple Java program and the first line is `public class HelloPrinter`. Is this the same thing in Java as the line `public class helloprinter`?

- A. No, because `helloprinter` is misspelled, the Java compiler will reject it.
- B. Yes, because these Java symbols both have the same letters, they are considered to be the same
- C. No, because Java is case-sensitive, these are considered to be completely distinct. Answer
- D. Yes, because all Java symbols must have exactly twelve characters.

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title Are these lines of code the same?
Difficulty Easy
id testbank-bjlo-2-ch01-34

35. Consider the following statements about folders and your integrated development environment (IDE):

- I. Hierarchical folders help to organize a project.
- II. Folders are a way to visualize the layout of a file system.
- III. Folders make it impossible to lose or accidentally delete a file.

Which statements are correct?

- A. I only
- B. III only
- C. I and II only Answer
- D. I, II, and III

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title How is your integrated development environment organized?
Difficulty Easy
id testbank-bjlo-2-ch01-35

36. The source code for a Java program is stored in a file _____.

- A. that ends with a `.class` suffix
- B. that can have any valid file name
- C. that has no suffix
- D. that ends with a `.java` suffix Answer

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title Where is Java source code stored?
Difficulty easy
id testbank-bjlo-2-ch01-36

37. A Java "class" file _____.

- A. contains instructions for the Java virtual machine Answer
- B. contains Java source code
- C. is the translation of the Java source code into C++
- D. is an internal file created by the Integrated Development Environment (IDE)

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title What is a Java "class" file?
Difficulty easy
id testbank-bjlo-2-ch01-37

38. Which of the following statements regarding backup strategies for Java files are true?

- I. You should back up your projects often to prevent loss of valuable work.
- II. You should check your backups only in case of loss of data.
- III. You should pay attention to the backup direction.

- A. I and II only
- B. I, II, and III
- C. II and III only
- D. I and III only Answer

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title Which statement regarding backup strategies for Java files is correct?
Difficulty Medium
id testbank-bjlo-2-ch01-38

39. Which pointers about backing up your Java projects are important?

- I. Check your backups once in a while.
- II. Rely on the Java programming language's built-in back up system.
- III. Back up often.

- A. I, II, and III
- B. I and II only
- C. II and III only
- D. I and III only Answer

Section Ref 1.4 Becoming Familiar with Your Programming Environment
Title Which pointers are important for backing up Java projects?
Difficulty easy
id testbank-bjlo-2-ch01-39

40. Every Java program consists of one or more _____.

- A. classes Answer
- B. strings
- C. `System.out.println` statements
- D. values (arguments)

Section Ref 1.5 Analyzing Your First Program
Title What does every program consist of?
Difficulty Easy
id testbank-bjlo-2-ch01-40

41. Characters that are grouped together between double quotes (quotation marks) in Java are called _____.

- A. syntax
- B. strings Answer
- C. reserved words
- D. symbols

Section Ref 1.5 Analyzing Your First Program
Title What is the term for characters grouped together and enclosed in quotes?
Difficulty Easy
id testbank-bjlo-2-ch01-41

42. Every statement in Java must be terminated with _____.

- A. the semi-colon character ; Answer
- B. `System.out.println()`
- C. a carriage return
- D. an escape sequence

Section Ref 1.5 Analyzing Your First Program
Title What does every statement end with?
Difficulty Easy
id testbank-bjlo-2-ch01-42

43. These two lines of code do not produce the same output. Why?

```
System.out.println(7 + 3);
System.out.println("7 + 3");
```

- A. The lack of escape characters causes the expressions to be treated differently.
- B. In fact, the two statements do produce the same output.
- C. The quotes cause the second expression to be treated as a string. Answer
- D. Arithmetic calculations cannot take place within the `println` method call.

Section Ref 1.5 Analyzing Your First Program
Title Why do the example lines of code behave the way they do?
Difficulty Easy
id testbank-bjlo-2-ch01-43

44. What is the output from this code snippet?

```
System.out.print("The sum is ");
System.out.println("7 + 3");
```

- A. The sum is 21
- B. The sum is 4
- C. The sum is 10
- D. The sum is 7 + 3 Answer

Section Ref	1.5 Analyzing Your First Program
Title	What is the output from this code?
Difficulty	Easy
id	testbank-bjlo-2-ch01-44

45. Which of the following symbols is used to terminate a Java program statement?

- A. colon
- B. single quote
- C. semicolon Answer
- D. period

Section Ref	1.5 Analyzing Your First Program
Title	Which symbol is used to terminate a Java program statement?
Difficulty	Easy
id	testbank-bjlo-2-ch01-45

46. Which of the following statements is valid with respect to the usage of a semicolon in Java?

- A. You cannot use a semicolon to terminate the `System.out.print` statement.
- B. A semicolon is used to terminate the `public class` statement.
- C. A semicolon is used to denote the end of a statement. Answer
- D. You cannot put a semicolon within double quotation marks.

Section Ref	1.5 Analyzing Your First Program
Title	Which statement is true about semicolon usage?
Difficulty	Medium
id	testbank-bjlo-2-ch01-46

47. Which of the following statements is true with respect to the `main` method in Java?

- A. A semicolon is required after the closing curly braces in the `main` method.
- B. Every Java application must have a `main` method. Answer
- C. The opening and closing parentheses after the method name `main` are optional.
- D. A semicolon is required after the statement `public static void main()`

Section Ref	1.5 Analyzing Your First Program
Title	Which statement is true about the main method?
Difficulty	Medium
id	testbank-bjlo-2-ch01-47

48. Which statement starts the declaration of a class in Java?

- A. `Java class`
- B. `public class Classname` Answer
- C. `System.out.println("Hello, World!");`
- D. `public static void main(String[] args)`

Section Ref	1.5 Analyzing Your First Program
Title	Which statement starts a class declaration in Java
Difficulty	Medium
id	testbank-bjlo-2-ch01-48

49. Which Java statement prints a blank line?

- A. `System.out.println();` Answer
- B. `System.out.print();`
- C. `public static void main(String[] args)`
- D. `System.out.Println();`

Section Ref 1.5 Analyzing Your First Program
Title Which statement prints a blank line
Difficulty Medium
id testbank-bjlo-2-ch01-49

50. Which Java statement does not contain an error?

- A. `System.out.print(;`
- B. `System.out.print()`
- C. `System.out.println();`
- D. `System.out.println();` Answer

Section Ref 1.5 Analyzing Your First Program
Title Which statement does not contain an error
Difficulty Medium
id testbank-bjlo-2-ch01-50

51. What is the output of the following code snippet?

```
System.out.print(4 + 4);  
System.out.print(12);
```

- A. 4412
- B. 4 + 412
- C. 20
- D. 812 Answer

Section Ref 1.5 Analyzing Your First Program
Title What is output of snippet (using print)?
Difficulty Medium
id testbank-bjlo-2-ch01-51

52. The Java statement `public static void main(String[] args)` declares a _____.

- A. class
- B. constant
- C. variable
- D. method Answer

Section Ref 1.5 Analyzing Your First Program
Title The statement "public static void main(String[] args)" declares what?
Difficulty Medium
id testbank-bjlo-2-ch01-52

53. Which of the following statements must you include in a Java class that can be executed by the virtual machine?

- A. `// Hello`
- B. `System.out.println();`
- C. `public static void main(String[] args)` Answer
- D. `return 0;`

Section Ref 1.5 Analyzing Your First Program
Title Which statements should you include in executable class?
Difficulty Easy
id testbank-bjlo-2-ch01-53

54. What is the output of the following code snippet?

```
System.out.print("Hello");
System.out.println("Good Day!");
```

- A. Hello
Good Day!
- B. Hello Good Day!
- C. HelloGood Day!

Answer

- D. HelloGoodDay!

Section Ref	1.5 Analyzing Your First Program
Title	What is output of snippet?
Difficulty	Medium
id	testbank-bjlo-2-ch01-54

55. Which one of the following code snippets compiles without errors and displays the output “Hello Good Day!” on the screen?

- A.

```
System.out.print("Hello ")
System.out.println("Good Day!");
```
- B.

```
System.out.print("Hello ");
System.out.println("Good Day!");
```
- C.

```
System.out.print("Hello");
System.out.println("Good Day!")
```
- D.

```
System.out.print("Hello ");
System.out.println("Good Day!");
```

Answer

Section Ref	1.5 Analyzing Your First Program
Title	Which snippet compiles without errors and displays “Hello Good Day!”?
Difficulty	Easy
id	testbank-bjlo-2-ch01-55

56. What is the output of the following code snippet?

```
public class PrintIt
{
    public static void main(String[] args)
    {
        System.out.println("4 * 4" + 12);
    }
}
```

- A. 4 * 412 Answer
- B. 4412
- C. 1612
- D. 28

Section Ref	1.5 Analyzing Your First Program
Title	What is output of snippet (with expressions)?
Difficulty	Hard
id	testbank-bjlo-2-ch01-56

57. Which statements are true?

- I. In Java, a file can contain at most one public class.
- II. The word **public** denotes that the class is usable by the "public".
- III. Every Java program must have a **main** method.

- A. I, II, and III Answer
 B. I and III only
 C. I and II only
 D. II and III only

Section Ref 1.5 Analyzing Your First Program
Title Which statements about Java are true?
Difficulty medium
id testbank-bjlo-2-ch01-57

58. The technical term for the values that a method needs in order to carry out its task is an argument. When there is more than one argument needed by a method, they are _____.

- A. separated by semicolons
 B. separated by spaces
 C. separated by commas Answer
 D. merged into a single variable

Section Ref 1.5 Analyzing Your First Program
Title Where a method needs more than one argument, they are _____?
Difficulty easy
id testbank-bjlo-2-ch01-58

59. In Java, if you want the compiler to interpret what you type as program instructions, you must _____.

- A. write the instructions in all capital letters
 B. write correct Java statements separated by the semicolon Answer
 C. enclose those instructions within quotation marks
 D. start the line that you type with the symbols //

Section Ref 1.5 Analyzing Your First Program
Title How do you type program commands in Java?
Difficulty easy
id testbank-bjlo-2-ch01-59

60. What kind of error is it when your program has a syntax error?

- A. compile-time error Answer
 B. logic error
 C. exception
 D. run-time error

Section Ref 1.6 Errors
Title Which kind of error is a syntax error?
Difficulty Easy
id testbank-bjlo-2-ch01-60

61. When a compiler finds a syntax error in a program, what happens?

- A. The compiler requests input from the user before it will continue.
 B. The compiler stops immediately.

- C. The compiler continues and may report about other errors but does not produce a Java class file. Answer
- D. The compiler goes ahead and produces a Java class file, but leaves out the statement where there was an error.

Section Ref 1.6 Errors
Title What happens when the compiler finds a syntax error?
Difficulty Easy
id testbank-bjlo-2-ch01-61

62. What kind of error is created by the following code snippet?

```
System.outt.println("Hello");
```

- A. Logic error: the program will run until it comes to this statement
- B. Syntax error: the program will not compile Answer
- C. No error: the code is correct
- D. Exception: the statement will generate an exception

Section Ref 1.6 Errors
Title What kind of error is created by the code snippet?
Difficulty Easy
id testbank-bjlo-2-ch01-62

63. What kind of error is created by the following code snippet?

```
System.out.print("The sum of 8 and 12 is ");
System.out.println(8 * 12);
```

- A. Exception: the statement will generate an exception
- B. Syntax error: the code will not compile
- C. No error: the code is correct
- D. Logic error: the program does not produce the desired result Answer

Section Ref 1.6 Errors
Title What kind of error is created by the code snippet?
Difficulty Easy
id testbank-bjlo-2-ch01-63

64. What is a logic error?

- A. An error that occurs when a program is running because, for example, the wrong operator was used. Answer
- B. An error introduced by the compiler when it guesses at how to fix a syntax error.
- C. An error in a statement that does not conform to the syntax of the programming language.
- D. An error in the hardware from overheating.

Section Ref 1.6 Errors
Title What is the definition of a logic error?
Difficulty Easy
id testbank-bjlo-2-ch01-64

65. How do programmers find exceptions and run-time errors?

- A. Re-compiling using different symbols
- B. Using the compiler
- C. Testing by running the program with a variety of input values Answer
- D. Carefully reading over the program code

Section Ref 1.6 Errors

Title How do programmers find exceptions and run-time errors?
Difficulty Easy
id testbank-bjlo-2-ch01-65

66. The programmer, not the compiler, is responsible for testing a program to identify _____.

- A. run-time errors Answer
- B. undefined symbols
- C. syntax errors
- D. compile-time errors

Section Ref 1.6 Errors
Title Who is responsible for what (programmer vs. compiler)?
Difficulty Easy
id testbank-bjlo-2-ch01-66

67. Which one of the following errors represents a part of a program that is incorrect according to the rules of the programming language?

- A. run-time errors
- B. out-of-memory errors
- C. syntax errors Answer
- D. logic errors

Section Ref 1.6 Errors
Title Which kind of error violates rules of the programming language?
Difficulty Easy
id testbank-bjlo-2-ch01-67

68. Who or what is responsible for inspecting and testing the program to guard against logic errors?

- A. end-user
- B. Integrated Development Environment
- C. compiler
- D. programmer Answer

Section Ref 1.6 Errors
Title Who/what is responsible for ... guarding against logic errors?
Difficulty Easy
id testbank-bjlo-2-ch01-68

69. While developing a program, the programmer adds the discount amount to the total due instead of subtracting it. What type of an error is this?

- A. hardware error
- B. compile-time error
- C. logic error Answer
- D. syntax error

Section Ref 1.6 Errors
Title What type of error is (adding instead of subtracting)?
Difficulty Medium
id testbank-bjlo-2-ch01-69

70. In Java, the following statement _____.

```
System.out.print("hello");;
```

- A. seems like it should print out "hello" but doesn't
- B. asks the user to enter a value and stores it in the variable "hello"

- C. is a syntax error
D. is a legal statement Answer

Section Ref 1.6 Errors
Title What can you say about the given Java statement?
Difficulty medium
id testbank-bjlo-2-ch01-70

71. Sometimes errors throw the compiler off track because _____.

- A. the compiler must be trained by your programming style
B. it cannot tell which language you are writing without a network connection
C. the compiler does not understand quotation marks
D. the compiler does not give up when it finds the first error Answer

Section Ref 1.6 Errors
Title Why does the Java compiler sometimes get "off track"?
Difficulty easy
id testbank-bjlo-2-ch01-71

72. Some run-time errors are so severe that they generate _____.

- A. the loss of your source code file
B. an exception Answer
C. a syntax error
D. an email to your account

Section Ref 1.6 Errors
Title Severe run-time errors generate _____?
Difficulty easy
id testbank-bjlo-2-ch01-72

73. During program development, errors are _____.

- A. very rare
B. automatically tracked by the Integrated Development Environment (IDE)
C. unavoidable Answer
D. prevented by the Java virtual machine

Section Ref 1.6 Errors
Title What is true about errors during program development?
Difficulty easy
id testbank-bjlo-2-ch01-73

74. If you misspell a word in your Java program, which of the following statements are true?

- I. the program will not compile
II. the program may compile, but not run
III. the program may compile and run but still have a logic error

- A. I, II, and III Answer
B. I and III only
C. II and III only
D. I and II only

Section Ref 1.6 Errors
Title What might happen if you misspell a word in your Java program?
Difficulty medium

id

testbank-bjlo-2-ch01-74

75. A sequence of steps that is unambiguous, executable, and terminating is called _____.

- A. an algorithm Answer
- B. a logarithm
- C. a programming task
- D. pseudocode

Section Ref

1.7 Problem Solving: Algorithm Design

Title

What is the term for a set of steps that is unambiguous, executable, and terminating?

Difficulty

easy

id

testbank-bjlo-2-ch01-75

76. You have been asked to develop an algorithm to calculate the total cost of a purchase order that contains several T shirts. The cost of each T shirt and the tax rate is known. The standard shipping charge for the entire order is \$5.75, and the special delivery charge is \$23.65. In addition, there is no tax on the shipping cost. Which of the following is the correct pseudocode for the required algorithm?

- A. **For each T shirt on the purchase order**
 Order cost = order cost + T shirt cost
 Total purchase order cost = order cost + tax rate + 5.75
- B. **If standard shipping**
 Shipping cost = 5.75
 Else
 Shipping cost = 23.65
 For each T shirt on the purchase order
 Order cost = order cost + T shirt cost + shipping cost
 Total purchase order cost = order cost * tax rate
- C. **If special delivery**
 Shipping cost = 5.75
 Else
 Shipping cost = 23.65
 For each T shirt on the purchase order
 Order cost = order cost + T shirt cost
 Total purchase order cost = order cost * tax rate + shipping cost
- D. **For each T shirt on the purchase order**
 Order cost = order cost + T shirt cost
 If standard shipping
 Shipping cost = 5.75
 Else
 Shipping cost = 23.65
 Total purchase order cost = order cost + order cost * tax rate + shipping cost

Answer

Section Ref

1.7 Problem Solving: Algorithm Design

Title	Which is the correct pseudocode for algorithm to calculate total cost?
Difficulty	Medium
id	testbank-bjlo-2-ch01-76

77. What is the purpose of the following algorithm, written in pseudocode?

```

num = 0
Repeat the following steps 10 times
  Input var1
  If var1 > num
    Num = var1
Print num

```

- A. To search for a particular number among 10 numbers
- B. To find the smallest among 10 numbers
- C. To print out the 10 numbers
- D. To find the highest among 10 numbers Answer

Section Ref	1.7 Problem Solving: Algorithm Design
Title	What is the purpose of this algorithm?
Difficulty	Medium
id	testbank-bjlo-2-ch01-77

78. Consider a situation where you are buying books online. The bookseller charges \$19.95 as the price per book and \$4.95 as the handling cost for up to three books. For every book purchased in addition to three books, there is a handling charge of \$1.50. In addition, there is a 7 percent tax on the cost of the books but not on the `handlingCharges`. Assuming that `numBooks` represents the number of books you are purchasing, which of the following is the correct algorithm for calculating the total cost of your purchase?

- A. `Total charge for books = 19.95 * numBooks`
`Tax on the books = numBooks * .07`
`if (books < 3) then handlingCharges = 4.95`
`else handlingCharges = 4.95 + 1.50 * (numBooks - 3)`
`Total cost of order = total charge for books + tax + handlingCharges`
- B. `Total charge for books = 19.95 * numBooks`
`Tax on the books = total charge for books * .07`
`if (books = 3) then handlingCharges = 4.95`
`else handlingCharges = 1.50 * numBooks`
`Total cost of order = total charge for books + tax + handlingCharges`
- C. `Total charge for books = 19.95 * numBooks`
`Tax on the books = total charge for books * .07`
`if (books <= 3) then handlingCharges = 4.95`
`else handlingCharges = 4.95 + 1.50 * (numBooks - 3)`
`Total cost of order = total charge for books + tax + handlingCharges`

Answer

D. **Total charge for books = 19.95 * numBooks**
Tax on the books = numBooks * .7
if (books <= 3) then handlingCharges = 4.95
else handlingCharges = 1.50 * numBooks
Total cost of order = total charge for books + tax + handlingCharges

Section Ref 1.7 Problem Solving: Algorithm Design
Title Which is the correct algorithm for calculating total cost with tax/shipping?
Difficulty Hard
id testbank-bjlo-2-ch01-78

79. Imagine you are planning to buy a new cell phone. You are considering two cell phones. These cell phones have different purchase prices. Each mobile service provider charges a different rate for each minute that the cell phone is used. To determine which cell phone is the better buy, you need to develop an algorithm to calculate the total cost of purchasing and using each cell phone. What are all the inputs needed for this algorithm?

- A. The cost of each cell phone and the number of minutes provided with each cell phone
- B. The cost of each cell phone, the rate per minute for each cell phone, and the number of minutes you would use the cell phone **Answer**
- C. The cost of each cell phone, the rate per minute for each cell phone, and the number of minutes provided with each cell phone
- D. The cost of each cell phone and the rate for each minute for each cell phone

Section Ref 1.7 Problem Solving: Algorithm Design
Title Which inputs do you need to calculate cost of purchasing/using cell phone?
Difficulty Medium
id testbank-bjlo-2-ch01-79

80. Which one of the following methodologies is a sequence of steps formulated in English for solving a problem?

- A. Pseudocode **Answer**
- B. Terminations
- C. Flowcharts
- D. Algorithms

Section Ref 1.7 Problem Solving: Algorithm Design
Title Which methodology is an informal description of steps for solving a problem?
Difficulty Easy
id testbank-bjlo-2-ch01-80

81. Imagine you are developing an algorithm to calculate the total cost of a purchase order that contains several items. The cost of each item and the tax rate is known. The standard shipping charge for the entire order is \$4.95, and the special delivery charge is \$19.95. In addition, there is no tax on the shipping cost. Which of the following is the correct pseudocode for the required algorithm?

- A. **If special delivery**
Shipping cost = 4.95
Else
Shipping cost = 19.95
For each item on the purchase order:
Order cost = order cost + item cost
Total purchase order cost = order cost * tax rate + shipping cost

B. If standard shipping

Shipping cost = 4.95

Else

Shipping cost = 19.95

For each item on the purchase order:

Order cost = order cost + item cost + shipping cost

Total purchase order cost = order cost * tax rate

C. For each item on the purchase order:

Order cost = order cost + item cost

If standard shipping

Shipping cost = 4.95

Else

Shipping cost = 19.95

Total purchase order cost = order cost + order cost * tax rate + shipping cost

Answer

D. For each item on the purchase order:

Order cost = order cost + item cost

Total purchase order cost = order cost + tax rate + 4.95

Section Ref	1.7 Problem Solving: Algorithm Design
Title	Which is the correct pseudocode for algorithm to calculate total cost?
Difficulty	Medium
id	testbank-bjlo-2-ch01-81

82. Evaluate the pseudocode below to calculate the payment (*pmt*) with the following test values:

The total number of hours worked (*workingHours*) = 50

The rate paid for hourly work (*rate*) = 10

Input *workingHours*

Input *rate*

pmt = *workingHours* * *rate*

If *working_hours* > 45

extraHours = *workingHours* - 45

extraPmt = *extraHours* * *rate* * 2

pmt = *pmt* + *extraPmt*

Output *pmt*

- A. 500
- B. 400
- C. 600 Answer
- D. 1,000

Section Ref	1.7 Problem Solving: Algorithm Design
Title	Evaluate this pseudocode with these test values.

Difficulty
id

Hard
testbank-bjlo-2-ch01-82

83. What is the purpose of the following algorithm?

```

someNum = 0
Repeat the following steps 50 times
  Input variable1
  if variable1 > someNum
    someNum = variable1
Print someNum

```

- A. To print out the 50 numbers
 - B. To find the smallest of 50 numbers
 - C. To search for a particular number among 50 numbers
 - D. To find the largest of 50 numbers
- Answer

Section Ref
Title
Difficulty
id

1.7 Problem Solving: Algorithm Design
What is the purpose of this algorithm?
Medium
testbank-bjlo-2-ch01-83

84. Consider a situation where you are buying videos online. The video seller charges \$21.50 as the price per video and \$6.75 as the handling cost for up to three videos. For every video purchased in addition to three videos, there is a handling charge of \$1.50. In addition, there is a 9 percent tax on the cost of the videos but not on the `handlingCharges`. Assuming that `numVideos` represents the number of videos you are purchasing, which of the following is the correct algorithm for calculating the total cost of your purchase?

- A. `Total charge for videos = 21.50 * numVideos`
`Tax on the videos = total charge for videos * .9`
`if (numVideos = 3) then handlingCharges = 6.75`
`else handlingCharges = 1.50 * numVideos`
`Total cost of order = total charge for videos + tax + handlingCharges`
- B. `Total charge for videos = 21.50 * numVideos`
`Tax on the videos = numVideos * .09`
`if (numVideos < 3) then handlingCharges = 6.75`
`else handlingCharges = 6.75 + 1.50 * (numVideos - 3)`
`Total cost of order = total charge for videos + tax + handlingCharges`
- C. `Total charge for videos = 21.50 * numVideos`
`Tax on the videos = total charge for videos * .09`
`if (numVideos <= 3) then handlingCharges = 6.75`
`else handlingCharges = 6.75 + 1.50 * (numVideos - 3)`
`Total cost of order = total charge for videos + tax + handlingCharges`

Answer

- D. `Total charge for videos = 21.50 * numVideos`
`Tax on the videos = numVideos * .9`

```

if (numVideos <= 3) then handlingCharges = 6.75
else handlingCharges = 1.50 * numVideos
Total cost of order = total charge for videos + tax + handlingCharges

```

Section Ref 1.7 Problem Solving: Algorithm Design
Title Which is the correct algorithm for calculating total cost with tax/shipping?
Difficulty Hard
id testbank-bjlo-2-ch01-84

85. Imagine you are planning to purchase a new cable TV dish. You are considering two cable TV dishes that have different purchase prices. Each channel service provider charges a different rate for each month that the cable TV dish is used. To determine which cable TV dish is the better buy, you need to develop an algorithm to calculate the total cost of purchasing and using each cable TV dish. What are all of the inputs that you need for this algorithm?

- A. The cost of each cable TV dish and the rate for each month for using each cable TV dish
- B. The cost of each cable TV dish, the rate per month for using each cable TV dish, and the number of months you would use the cable TV dish Answer
- C. The cost of each cable TV dish and the number of months you would use the cable TV dish
- D. The number of months you would use the cable TV dish and the rate per month for using each cable TV dish

Section Ref 1.7 Problem Solving: Algorithm Design
Title Which inputs do you need to calculate cost of purchasing/using cable dish?
Difficulty Medium
id testbank-bjlo-2-ch01-85

86. Evaluate the pseudocode below to calculate the payment (*pmt*) with the following test values:

The total number of hours worked (*workingHours*) = 60

The rate paid for hourly work (*rate*) = 15

Input *workingHours*

Input *rate*

pmt = *workingHours* * *rate*

If *workingHours* > 40 then

extraHours = *workingHours* - 40

extraPmt = *extraHours* * *rate* * 2

pmt = *pmt* + *extraPmt*

Output *pmt*

- A. 1,200
- B. 1,800
- C. 900
- D. 1,500 Answer

Section Ref 1.7 Problem Solving: Algorithm Design
Title Evaluate this pseudocode with these test values.
Difficulty Hard
id testbank-bjlo-2-ch01-86

87. Consider the following pseudocode. What does it produce?

Create a list of consecutive integers from two to n : (2, 3, 4, ..., n)

Initially, let p equal 2

Repeat following steps until p is greater than n

Strike from the list all multiples of p less than or equal to n

Find the first number remaining on the list greater than p

Replace p with this number.

- A. All factorial numbers up to n
- B. All Fibonacci numbers up to n
- C. All prime numbers up to n Answer
- D. All even numbers up to n

Section Ref	1.7 Problem Solving: Algorithm Design
Title	What does the algorithm produce?
Difficulty	Hard
id	testbank-bjlo-2-ch01-87

88. Consider the following pseudocode. What does it produce?

Set n to 1

Set p to 1

Repeat until n equals 20

 Multiply p by 2 and store result in p

 Add 1 to n

Print p

- A. The product of first 20 numbers
- B. Two raised to the power 20 Answer
- C. The product of first 20 even numbers
- D. Factorial of 20

Section Ref	1.7 Problem Solving: Algorithm Design
Title	What does the algorithm produce?
Difficulty	Medium
id	testbank-bjlo-2-ch01-88

89. Consider the following pseudocode, what does it produce?

Set n to 1

Set p to 0

Set s to 0

Repeat until n equals 10

 Calculate the square of n and store in s

 Add s to p

 Add 1 to n

Print p

- A. The product of first 10 numbers
- B. Two raised to the power 10
- C. Sum of square of numbers between 1 and 10 Answer
- D. The product of first 10 even numbers

Section Ref	1.7 Problem Solving: Algorithm Design
Title	What does the algorithm produce?
Difficulty	Medium
id	testbank-bjlo-2-ch01-89

90. Consider the following pseudocode, what does it produce?

```

Set n to 0
Set a to 0
Set b to 1
Set p to 1
Print p
Repeat until n equals 10
  Set p to a + b
  Set a to b
  Set b to p
  Add 1 to n
Print p

```

- A. 1 2 3 4 5 6 7 8 9 10 11
- B. 1 3 6 9 12 15 18 21 24 27 30
- C. 1 1 2 3 5 8 13 21 34 55 89 Answer
- D. 1 3 5 7 9 11 13 15 17 19 21

Section Ref	1.7 Problem Solving: Algorithm Design
Title	What does the algorithm produce?
Difficulty	Hard
id	testbank-bjlo-2-ch01-90

91. Consider the following pseudocode, what does it produce?

```

Set n to 1
Set p to 1
Repeat until n equals 6
  Multiply p by n and store result in p
  Add 1 to n
Print p

```

- A. 1 1 2 3 5 8
- B. 1 3 6 9 12 15
- C. 1 2 6 24 120 720 Answer
- D. 1 2 3 4 5 6

Section Ref	1.7 Problem Solving: Algorithm Design
Title	What does the algorithm produce?
Difficulty	Medium
id	testbank-bjlo-2-ch01-91

92. Which of these are true about writing algorithms in pseudocode?

- I. The exact wording is not important
- II. The sequence of steps should be ambiguous

III. The algorithm should terminate

- A. II and III only
- B. I and II only
- C. I and III only Answer
- D. I, II, and III

Section Ref 1.7 Problem Solving: Algorithm Design
Title What is true when writing pseudocode?
Difficulty easy
id testbank-bjlo-2-ch01-92

93. A pseudocode step is executable when _____.

- A. it is precise about where to go next
- B. it is guaranteed to terminate
- C. it can be carried out in practice Answer
- D. it is syntactically correct in a programming language like Java

Section Ref 1.7 Problem Solving: Algorithm Design
Title A pseudocode step is executable when _____?
Difficulty easy
id testbank-bjlo-2-ch01-93

94. The first step in describing an algorithm in pseudocode is _____.

- A. break the algorithm into smaller pieces
- B. write the steps out in Java code
- C. test the algorithm by working a problem
- D. determine the inputs and the outputs Answer

Section Ref 1.7 Problem Solving: Algorithm Design
Title What is the first step in describing an algorithm?
Difficulty easy
id testbank-bjlo-2-ch01-94