01

Give:

11. public static Iterator reverse(List list) {

12. Collections.reverse(list);

13. return list.iterator();

14. }

15. public static void main(String[] args) {

16. List list = new ArrayList();

17. list.add(” 1”); list.add(”2”); list.add(”3”);

18. for (Object obj: reverse(list))

19. System.out.print(obj + “,”);20. }

‘What is the result?

A. 3,2, 1,

B. 1, 2, 3,

C. Compilation fails.

D. The code runs with no output.

E. An exception is thrown at runtime.

02

Given:

1. public class TestSeven extends Thread {

2. private static int x;

3. public synchronized void doThings() {

4. int current = x;

5. current++;

6. x = current;

7. }

8. public void run() {

9. doThings();

10. }

1 1.}

Which is true?

A. Compilation fails.

B. An exception is thrown at runtime.

C. Synchronizing the run() method would make the class thread-safe.

D. The data in variable “x” are protected from concurrent access

problems.

E. Declaring the doThings() method as static would make the class

thread-safe.

F. Wrapping the statements within doThings() in a synchronized(new

Object()) { } block would make the class thread-safe.

03

Given:

• d is a valid, non-null Date object

• df is a valid, non-null DateFormat object set to the

current locale

What outputs the current locales country name and the appropriate

version of d’s date?

A. Locale loc = Locale.getLocale();

System.out.println(loc.getDisplayCountry()

+ “ “+ df.format(d));

B. Locale loc = Locale.getDefault();

System.out.println(loc.getDisplayCountry()

+ “ “ + df.format(d));

C. Locale bc = Locale.getLocale();

System.out.println(loc.getDisplayCountry()

+ “ “+ df.setDateFormat(d));

D. Locale loc = Locale.getDefault();

System.out.println(loc.getDispbayCountry()

+ “ “+ df.setDateFormat(d));

04

41. Given:

10. class One {

11. public One foo() { return this; }

12. }

13. class Two extends One {

14. public One foo() { return this; }

15. }

16. class Three extends Two {

17. // insert method here

18. }

Which two methods, inserted individually, correctly complete the Threeclass? (Choose two.)

A. public void foo() { }

B. public int foo() { return 3; }

C. public Two foo() { return this; }

D. public One foo() { return this; }

E. public Object foo() { return this; }

05

Given:

10. interface A { public int getValue() }

11. class B implements A {

12. public int getValue() { return 1; }

13. }14. class C extends B {

15. // insert code here

16. }

Which three code fragments, inserted individually at line 15, make use

of polymorphism? (Choose three.)

A. public void add(C c) { c.getValue(); }

B. public void add(B b) { b.getValue(); }

C. public void add(A a) { a.getValue(); }

D. public void add(A a, B b) { a.getValue(); }

E. public void add(C c1, C c2) { c1.getValue(); }

06

Given:

10. public class Foo implements java.io.Serializable {

11. private int x;

12. public int getX() { return x; }

12.publicFoo(int x){this.x=x; }

13. private void writeObject( ObjectOutputStream s)

14. throws IOException {

15. // insert code here

16. }

17. }

Which code fragment, inserted at line 15, will allow Foo objects to be

correctly serialized and deserialized?

A. s.writeInt(x);

B. s.serialize(x);

C. s.writeObject(x);

D. s.defaultWriteObject();

07

Given:

public class NamedCounter {

private final String name;

private int count;

public NamedCounter(String name) { this.name = name; }

public String getName() { return name; }

public void increment() { coount++; }

public int getCount() { return count; }

public void reset() { count = 0; }

}

Which three changes should be made to adapt this class to be used

safely by multiple threads? (Choose three.)

A. declare reset() using the synchronized keyword

B. declare getName() using the synchronized keyword

C. declare getCount() using the synchronized keyword

D. declare the constructor using the synchronized keyword

E. declare increment() using the synchronized keyword

08

Click the Exhibit button.

11. class Person {

12. String name = “No name’;

13. public Person(String nm) { name = nm; }

14. }

15.

16. class Employee extends Person {

17. String emplD = “0000”;

18. public Employee(String id) { empID = id; }

19. }20.

21. public class EmployeeTest {

22. public static void main(String[] args) {

23. Employee e = new Employee(”4321”);

24. System.out.println(e.empID);

25. }

26. }

What is the result?

A. 4321

B. 0000

C. An exception is thrown at runtime.

D. Compilation fails because of an error in line 18.

09

Click the Exhibit button.

11. class Person {

12. String name = “No name’;

13. public Person(String nm) { name = nm; }

14. }

15.

16. class Employee extends Person {

17. String emplD = “0000”;

18. public Employee(String id) { empID = id; }

19. }20.

21. public class EmployeeTest {

22. public static void main(String[] args) {

23. Employee e = new Employee(”4321”);

24. System.out.println(e.empID);

25. }

26. }

What is the result?

A. 4321

B. 0000

C. An exception is thrown at runtime.

D. Compilation fails because of an error in line 18.

10

Given:

11. public String makinStrings() {

12. String s = “Fred”;

13. s = s + “47”;

14. s = s.substring(2, 5);

15. s = s.toUpperCase();

16. return s.toString();

17. }

How many String objects will be created when this method is invoked?

A. 1

B. 2

C. 3

D. 4

E. 5

F. 6

11

Click the Exhibit button.

1. public class A {

2.

3. private int counter = 0;

4.

5. public static int getInstanceCount() {

6. return counter;

7. }

8.

9. public A() {

10. counter++;

11. }

12.

13. }

Given this code from Class B:

25.A a1 =new A();26. A a2 =new A();

27. A a3 =new A();

28. System.out.printIn(A.getInstanceCount() );

What is the result?

A. Compilation of class A fails.

B. Line 28 prints the value 3 to System.out.

C. Line 28 prints the value 1 to System.out.

D. A runtime error occurs when line 25 executes.

E. Compilation fails because of an error on line 28.

12

Given:

11. abstract class Vehicle { public int speed() { return 0; } }

12. class Car extends Vehicle { public int speed() { return 60; } }

13. class RaceCar extends Car { public int speed() { return 150; }}

......

21. RaceCar racer = new RaceCar();

22. Car car = new RaceCar();

23. Vehicle vehicle = new RaceCar();

24. System.out.println(racer.speed() + “, ‘ + car.speed()

25. + “, “+ vehicle.speed());

What is the result?

A. 0, 0,0

B. 150, 60, 0

C. Compilation fails.

D. 150, 150, 150

E. An exception is thrown at runtime.

13

Given:

55. int []x= {1, 2,3,4, 5};

56.int y[] =x;

57. System.out.println(y[2]);

Which is true?

A. Line 57 will print the value 2.

B. Line 57 will print the value 3.

C. Compilation will fail because of an error in line 55.

D. Compilation will fail because of an error in line 56.

14

Given this method in a class:

21. public String toString() {

22. StringBuffer buffer = new StringBuffer();

23. buffer.append(’<’);

24. buffer.append(this.name);

25. buffer.append(’>’);

26. return buffer.toString();

27. }

Which is true?

A. This code is NOT thread-safe.

B. The programmer can replace StringBuffer with StringBuilder with no

other changes.

C. This code will perform well and converting the code to use

StringBuilder will not enhance the performance.

D. This code will perform poorly. For better performance, the codeshould be rewritten:

return “<“+ this.name + “>”;

15

Given:

35. String #name = “Jane Doe”;

36.int$age=24;37. Double\_height = 123.5;

38. double~temp = 37.5;

Which two are true? (Choose two.)

A. Line 35 will not compile.

B. Line 36 will not compile.

C. Line 37 will not compile.

D. Line 38 will not compile.

16

Click the Exhibit button.

11. public class Bootchy {

12. int bootch;

13. String snootch;14.

15. public Bootchy() {

16. this(”snootchy”);

17. System.out.print(”first “);

18. }

19.

20. public Bootchy(String snootch) {

21. this(420, “snootchy”);

22. System.out.print(”second “);

23. }

24.

25. public Bootchy(int bootch, String snootch) {

26. this.bootch = bootch;

27. this.snootch = snootch;

28. System.out.print(”third “);

29. }

30.

31. public static void main(String[] args) {

32. Bootchy b = new Bootchy();

33. System.out.print(b.snootch +“ “ + b.bootch);

34. }

35. }

What is the result?

A. snootchy 420 third second first

B. snootchy 420 first second third

C. first second third snootchy 420

D. third second first siiootchy 420

E. third first second snootchy 420

F. first second first third snootchy 420

17

Given a valid DateFormat object named df, and

16. Date d = new Date(0L);

17. String ds = “December 15, 2004”;

18. // insert code here

What updates d’s value with the date represented by ds?

A. 18. d = df.parse(ds);

B. 18. d = df.getDate(ds);

C. 18. try {

19. d = df.parse(ds);

20. } catch(ParseException e) { };D. 18. try {

19. d = df.getDate(ds);

20. } catch(ParseException e) { };

18

Given:

1. public interface A {

2. String DEFAULT\_GREETING = “Hello World”;

3. public void method1();

4. }

A programmer wants to create an interface called B that has A as its

parent. Which interface declaration is correct?

A. public interface B extends A { }

B. public interface B implements A {}

C. public interface B instanceOf A {}

D. public interface B inheritsFrom A { }

19

Given:

11. public abstract class Shape {

12. private int x;

13. private int y;

14. public abstract void draw();

15. public void setAnchor(int x, int y) {

16. this.x = x;17. this.y = y;

18. }

19. }

Which two classes use the Shape class correctly? (Choose two.)

A. public class Circle implements Shape {

private int radius;

}

B. public abstract class Circle extends Shape {

private int radius;

}

C. public class Circle extends Shape {

private int radius;

public void draw();

}

D. public abstract class Circle implements Shape {

private int radius;

public void draw();

}

E. public class Circle extends Shape {

private int radius;

public void draw() {/\* code here \*/}

}

F. public abstract class Circle implements Shape {

private int radius;

public void draw() { / code here \*/ }

}

20

Given:

1. class ClassA {

2. public int numberOfinstances;

3. protected ClassA(int numberOfinstances) {

4. this.numberOflnstances = numberOfinstances;

5. }

6. }

7. public class ExtendedA extends ClassA {

8. private ExtendedA(int numberOfinstances) {

9. super(numberOflnstances);

10. }

11. public static void main(String[] args) {

12. ExtendedA ext = new ExtendedA(420);

13. System.out.print(ext.numberOflnstances);

14. }

15. }

Which is true?

A. 420 is the output.

B. An exception is thrown at runtime.

C. All constructors must be declared public.

D. Constructors CANNOT use the private modifier.

E. Constructors CANNOT use the protected modifier.

21

Which two are true? (Choose two.)

A. An encapsulated, public class promotes re-use.

B. Classes that share the same interface are always tightly

encapsulated.

C. An encapsulated class allows subclasses to overload methods, but

does NOT allow overriding methods.

D. An encapsulated class allows a programmer to change an

implementation without affecting outside code.

22

Given:

11. public static void main(String[] args) {

12. try {

13. args=null;

14. args[0] = “test”;

15. System.out.println(args[0]);

16. } catch (Exception ex) {

17. System.out.println(”Exception”);

18. } catch (NullPointerException npe) {

19. System.out.println(”NullPointerException”);

20. }

21. }

What is the result?

A. test

B. Exception

C. Compilation fails.

D. NullPointerException

23

Click the Exhibit button.

1. class Computation extends Thread {

2.

3. private int num;4. private boolean isComplete;

5. private int result;

6.

7. public Computation(int num) { this.num = num; }

8.

9. public synchronized void run() {

10. result = num \* 2;

11. isComplete = true;

12. notify();

13. }

14.

15. public synchronized int getResult() {

16. while (!isComplete) {

17. try {

18. wait();

19. } catch (InterruptedException e) { }

20. }

21. return result;

22. }

23.

24. public static void main(String[] args) {

25. Computation[] computations = new Computation [4];

26. for (int i = 0; i < computations.length; i++) {

27. computations[i] = new Computation(i);

28. computations[i] .start();

29. }

30. for (Computation c : computations)

31. System.out.print(c.getResult() +“ “);

32. }

33. }

What is the result?

A. The code will deadlock.

B. The code may run with no output.

C. An exception is thrown at runtime.

D. The code may run with output “0 6”.

E. The code may run with output “2 0 6 4’.

F. The code may ruin with output “0 2 4 6”.

24

Given:

10. class One {

11. void foo() {}

12. }

13. class Two extends One {

14. //insert method here

15. }

Which three methods, inserted individually at line 14, will correctly

complete class Two? (Choose three.)

A. int foo() { /\* more code here \*/ }

B. void foo() { /\* more code here \*/ }

C. public void foo() { /\* more code here \*/ }

D. private void foo() { /\* more code here \*/ }

E. protected void foo() { /\* more code here \*/ }

25

Given:

11. public class Ball {

12. public enum Color { RED, GREEN, BLUE };

13. public void foo() {

14. // insert code here

15. { System.out.println(c); }

16. }

17. }

Which code inserted at line 14 causes the foo method to print RED,

GREEN, and BLUE?

A. for( Color c : Color.values())

B. for( Color c = RED; c <= BLUE; c++)

C. for( Color c; c.hasNext() ; c.next())

D. for( Color c = Color[0]; c <= Color[2]; c++)E. for( Color c = Color.RED; c <= Color.BLUE; c++)

26

Given:

10. public class Fabric

11. public enum Color {

12. RED(0xff0000), GREEN(0x00ff00), BLUE(0x0000ff);

13. private final int rgb;

14. Color( int rgb) { this.rgb = rgb; }

15. public int getRGB() { return rgb; }

16. };

17. public static void main( String[] argv) {

18. // insert code here

19. }

20. }

Which two code fragments, inserted independently at line 18, allow the

Fabric class to compile? (Choose two.)

A. Color skyColor = BLUE;

B. Color treeColor = Color.GREEN;

C. Color purple = new Color( 0xff00ff);

D. if( RED.getRGB() < BLUE.getRGB() ) {}

E. Color purple = Color.BLUE + Color.RED;

F. if( Color.RED.ordinal() < Color.BLUE.ordinal() ) {}

27

Given:

11.classA {

12. public void process() { System.out.print(”A,”); } }

13. class B extends A {

14. public void process() throws IOException {

15. super.process();

16. System.out.print(”B,”);

17. throw new IOException();

18. } }

19. public static void main(String[] args) {

20. try { new B().process(); }

21. catch (IOException e) { System.out.println(”Exception”); } }

What is the result?

A. Exception

B. A,B,Exception

C. Compilation fails because of an error in line 20.

D. Compilation fails because of an error in line 14.

E. A NullPointerException is thrown at runtime.

28

Given:

11. String test = “This is a test”;

12. String[] tokens = test.split(”\s”);

13. System.out.println(tokens.length);

What is the result?

A. 0

B. 1

C. 4

D. Compilation fails.

E. An exception is thrown at runtime.

29

Click the Exhibit button.

1. import java.util.\*;

2.

3. public class NameList {

4. private List names = new ArrayList();

5. public synchronized void add(String name) { names.add(name); }

6. public synchronized void printAll() {

7. for (int i = 0; i <names.size(); i++) {

8. System.out.print(names.get(i) +“ “);

9. }

10. }

11. public static void main(String[] args) {

12. final NameList sl = new NameList();

13.for(int i=0;i<2;i++) {

14. new Thread() {

15. public void ruin() {

16. sl.add(”A”);

17. sl.add(”B”);

18. sl.add(”C”);

19. sl.printAll();

20. }

21. }.start();

22. }

23. }

24. }

Which two statements are true if this class is compiled and run?

(Choose two.)

A. An exception may be thrown at runtime.

B. The code may run with no output, without exiting.

C. The code may run with no output, exiting normally.D. The code may rum with output “A B A B C C “, then exit.

E. The code may rum with output “A B C A B C A B C “, then exit.

F. The code may ruin with output “A A A B C A B C C “, then exit.

G. The code may ruin with output “A B C A A B C A B C “, then exit.

30

Assume that country is set for each class.

Given:

10. public class Money {

11. private String country, name;

12. public getCountry() { return country; }

13.}

and:

24. class Yen extends Money {

25. public String getCountry() { return super.country; }

26. }

27.

28. class Euro extends Money {

29. public String getCountry(String timeZone) {

30. return super.getCountry();

31. }

32. }

Which two are correct? (Choose two.)

A. Yen returns correct values.

B. Euro returns correct values.

C. An exception is thrown at runtime.

D. Yen and Euro both return correct values.

E. Compilation fails because of an error at line 25.

F. Compilation fails because of an error at line 30.

31

Click the Exhibit button:

1. public class Threads 1 {

2. intx=0;

3. public class Runner implements Runnable {

4. public void run() {

5. int current = 0;

6. for(int=i=0;i<4;i++){

7. current = x;

8. System.out.print(current + “, “);

9. x = current + 2;

10. }

11. }

12. }

13.

14. public static void main(String[] args) {

15. new Threads1().go();

16. }

17.

18. public void go() {

19. Runnable r1 = new Runner();20. new Thread(r1).start();

21. new Thread(r1 ).start();

22. }

23. }

Which two are possible results? (Choose two.)

A. 0, 2, 4, 4, 6, 8, 10, 6,

B. 0, 2, 4, 6, 8, 10, 2, 4,

C. 0, 2, 4, 6, 8, 10, 12, 14,

D. 0, 0, 2, 2, 4, 4, 6, 6, 8, 8, 10, 10, 12, 12, 14, 14,

E. 0, 2, 4, 6, 8, 10, 12, 14, 0, 2, 4, 6, 8, 10, 12, 14,

32

Given:

10. class Line {

11. public class Point { public int x,y; }

12. public Point getPoint() { return new Point(); }

13. }

14. class Triangle {

15. public Triangle() {

16. // insert code here

17. }18. }

Which code, inserted at line 16, correctly retrieves a local instance of a

Point object?

A. Point p = Line.getPoint();

B. Line.Point p = Line.getPoint();

C. Point p = (new Line()).getPoint();

D. Line.Point p = (new Line()).getPoint();

33

Given:

11. static void test() throws Error {

12. if (true) throw new AssertionError();

13. System.out.print(”test “);

14. }

15. public static void main(String[] args) {

16. try { test(); }

17. catch (Exception ex) { System.out.print(”exception “); }

18. System.out.print(”elld “);

19. }What is the result?

A. end

B. Compilation fails.

C. exception end

D. exception test end

E. A Throwable is thrown by main.

F. An Exception is thrown by main.

34

Given:

11. static classA {

12. void process() throws Exception { throw new Exception(); }

13. }

14. static class B extends A {

15. void process() { System.out.println(”B “); }

16. }

17. public static void main(String[] args) {

18.A a=new B();

19. a.process();

20.}

What is the result?

A. B

B. The code runs with no output.

C. An exception is thrown at runtime.

D. Compilation fails because of an error in line 15.

E. Compilation fails because of an error in line 18.

F. Compilation fails because of an error in line 19.

35

Given:

1. class SuperClass {

2. public A getA() {

3. return new A();

4. }

5. }

6. class SubClass extends SuperClass {7. public B getA() {

8. return new B();

9. }

10. }

Which is true?

A. Compilation will succeed if A extends B.

B. Compilation will succeed if B extends A.

C. Compilation will always fail because of an error in line 7.

D. Compilation will always fail because of an error in line 8.

36

Given:

1. public class TestOne {

2. public static void main (String[] args) throws Exception {

3. Thread.sleep(3000);

4. System.out.println(”sleep”);

5. }

6. }

What is the result?A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes normally and prints “sleep”.

D. The code executes normally, but nothing is printed.

37

Which two code fragments will execute the method doStuff() in a

separate thread? (Choose two.)

A. new Thread() {

public void run() { doStuff(); }

}

B. new Thread() {

public void start() { doStuff(); }

}C. new Thread() {

public void start() { doStuff(); }

} .run();

D. new Thread() {

public void run() { doStuff(); }

} .start();

E. new Thread(new Runnable() {

public void run() { doStuff(); }

} ).run();

F. new Thread(new Runnable() {

public void run() { doStuff(); }

}).start();

38

Given:

10. public class ClassA {

11. public void count(int i) {

12. count(++i);

13. }

14. }And:

20. ClassA a = new ClassA();

21. a.count(3);

Which exception or error should be thrown by the virtual machine?

A. StackOverflowError

B. NullPointerException

C. NumberFormatException

D. IllegalArgumentException

E. ExceptionlnlnitializerError

39

Which two classes correctly implement both the java.lang.Runnable

and the java.lang.Clonable interfaces? (Choose two.)

A. public class Session

implements Runnable, Clonable {

public void run();

public Object clone();

}B. public class Session

extends Runnable, Clonable {

public void run() { / do something \*/ }

public Object clone() { / make a copy \*/ }

}

C. public class Session

implements Runnable, Clonable {

public void run() { / do something \*/ }

public Object clone() { /\* make a copy \*/ }

}

D. public abstract class Session

implements Runnable, Clonable {

public void run() { / do something \*/ }

public Object clone() { /\*make a copy \*/ }

}

E. public class Session

implements Runnable, implements Clonable {

public void run() { / do something \*/ }

public Object clone() { / make a copy \*/ }

}

40

Which two code fragments correctly create and initialize a static array

of int elements? (Choose two.)

A. static final int[] a = { 100,200 };

B. static final int[] a;

static { a=new int[2]; a[0]=100; a[1]=200; }

C. static final int[] a = new int[2] { 100,200 };

D. static final int[] a;

static void init() { a = new int[3]; a[0]=100; a[1]=200; }

41

Which three will compile and rim without exception? (Choose three.)

A. private synchronized Object o;

B. void go() {

synchronized() { /\* code here \*/ }

}

C. public synchronized void go() { /\* code here \*/ }

D. private synchronized(this) void go() { /\* code here \*/ }

E. void go() {synchronized(Object.class) { /\* code here \*/ }

}

F. void go() {

Object o = new Object();

synchronized(o) { /\* code here \*/ }

}

42

147. Given:

1. public class Base {

2. public static final String FOO = “foo”;

3. public static void main(String[] args) {4. Base b = new Base();

5. Sub s = new Sub();

6. System.out.print(Base.FOO);

7. System.out.print(Sub.FOO);

8. System.out.print(b.FOO);

9. System.out.print(s.FOO);

10. System.out.print(((Base)s).FOO);

11. } }

12. class Sub extends Base {public static final String FOO=bar;}

What is the result?

A. foofoofoofoofoo

B. foobarfoobarbar

C. foobarfoofoofoo

D. foobarfoobarfoo

E. barbarbarbarbar

F. foofoofoobarbar

G. foofoofoobar

43

Given:

11. public static void parse(String str) {

12. try {

13. float f= Float.parseFloat(str);

14. } catch (NumberFormatException nfe) {

15. f= 0;

16. } finally {

17. System.out.println(f);

18. }

19. }

20. public static void main(String[] args) {

21. parse(”invalid”);

22. }

What is the result?

A. 0.0

B. Compilation fails.

C. A ParseException is thrown by the parse method at runtime.D. A NumberFormatException is thrown by the parse method at

runtime.

44

Given:

11. public class Test {

12. public static void main(String [] args) {

13. int x =5;

14. boolean b1 = true;

15. boolean b2 = false;

16.

17.if((x==4) && !b2)

18. System.out.print(”l “);

19. System.out.print(”2 “);

20. if ((b2 = true) && b1)21. System.out.print(”3 “);

22. }

23. }

What is the result?

A. 2

B. 3

C. 1 2

D. 2 3

E. 1 2 3

F. Compilation fails.

G. Au exceptional is thrown at runtime.

45

Given:

1. package test;

2.

3. class Target {

4. public String name = “hello”;

5. }

What can directly access and change the value of the variable name?

A. any class

B. only the Target class

C. any class in the test package

D. any class that extends Target

46

Given:

35. int x= 10;

36. do {

37. x--;

38. } while(x< 10);

How many times will line 37 be executed?

A. ten times

B. zero times

C. one to me times

D. more than ten times

47

46. Given:

10. class Line {

11. public static class Point { }

12. }

13.

14. class Triangle {

15. // insert code here

16. }

Which code, inserted at line 15, creates an instance of the Point class

defined in Line?

A. Point p = new Point();

B. Line.Point p = new Line.Point();

C. The Point class cannot be instatiated at line 15.

D. Line 1 = new Line() ; 1.Point p = new 1.Point();

48

Given:

1. class Pizza {

2. java.util.ArrayList toppings;

3. public final void addTopping(String topping) {

4. toppings.add(topping);5. }

6. }

7. public class PepperoniPizza extends Pizza {

8. public void addTopping(String topping) {

9. System.out.println(”Cannot add Toppings”);

10. }

11. public static void main(String[] args) {

12. Pizza pizza = new PepperoniPizza();

13. pizza.addTopping(”Mushrooms”);

14. }

15. }

What is the result?

A. Compilation fails.

B. Cannot add Toppings

C. The code runs with no output.

D. A NullPointerException is thrown in Line 4.

49

Click the Exhibit button.

1. public class Test {

2.

3. public static void main(String [] args) {

4. boolean assert = true;

5. if(assert) {

6. System.out.println(”assert is true”);

7. }

8. }

9.

10. }

Given:

javac -source 1.3 Test.java

What is the result?

A. Compilation fails.

B. Compilation succeeds with errors.

C. Compilation succeeds with warnings.

D. Compilation succeeds without warnings or errors.

50

Click the Exhibit button.

1. import java.io.\*;

2. public class Foo implements Serializable {

3. public int x, y;

4. public Foo( int x, int y) { this.x = x; this.y = y; }

5.

6. private void writeObject( ObjectOutputStream s)

7. throws IOException {

8. s.writeInt(x); s.writeInt(y)

9. }

10.

11. private void readObject( ObjectInputStream s)

12. throws IOException, ClassNotFoundException {

13.

14. // insert code here

15.

16. }

17. }

Which code, inserted at line 14, will allow this class to correctly

serialize and deserialize?

A. s.defaultReadObject();

B. this = s.defaultReadObject();

C. y = s.readInt(); x = s.readInt();

D. x = s.readInt(); y = s.readInt();

51

4. Given:

31. // some code here

32. try {

33. // some code here

34. } catch (SomeException se) {

35. // some code here

36. } finally {

37. // some code here

38. }

Under which three circumstances will the code on line 37 be executed?

(Choose three.)

A. The instance gets garbage collected.

B. The code on line 33 throws an exception.

C. The code on line 35 throws an exception.

D. The code on line 31 throws an exception.

E. The code on line 33 executes successfully.

52

Given:

10.int x=0;

11.int y 10;

12. do {

l3. y--;

14. ++x;

15. } while (x < 5);

16. System.out.print(x + “,“ + y);

What is the result?

A. 5,6

B. 5,5

C. 6,5D. 6,6

53

Click the Exhibit button.

1. public class A {

2. public String doit(int x, int y) {

3. return “a”;

4. }

5.

6. public String doit(int... vals) {

7. return “b”;

8. }

9. }

Given:

25. A a=new A();

26. System.out.println(a.doit(4, 5));

What is the result?

A. Line 26 prints “a” to System.out.

B. Line 26 prints ‘b” to System.out.

C. An exception is thrown at line 26 at runtime.

D. Compilation of class A will fail due to an error in line 6.

54

Given:

12. public class Test {

13. public enum Dogs {collie, harrier};

14. public static void main(String [] args) {

15. Dogs myDog = Dogs.collie;

16. switch (myDog) {

17. case collie:

18. System.out.print(”collie “);

19. case harrier:

20. System.out.print(”harrier “);

21. }

22. }

23. }

What is the result?

A. collie

B. harrier

C. Compilation fails.

D. collie harrier

E. An exception is thrown at runtime.

55

Given:

10. interface Foo {}

11. class Alpha implements Foo { }

12. class Beta extends Alpha {}

13. class Delta extends Beta {

14. public static void main( String[] args) {

15. Beta x = new Beta();

16. // insert code here

17. }18. }

Which code, inserted at line 16, will cause a

java.lang.ClassCastException?

A. Alpha a = x;

B. Foo f= (Delta)x;

C. Foo f= (Alpha)x;

D. Beta b = (Beta)(Alpha)x;

56

Given:

10. class One {

11. public One() { System.out.print(1); }

12. }

13. class Two extends One {

14. public Two() { System.out.print(2); }

15. }

16. class Three extends Two {

17. public Three() { System.out.print(3); }

18. }

19. public class Numbers{

20. public static void main( String[] argv) { new Three(); }

21. }

What is the result when this code is executed?

A. 1

B. 3

C. 123

D. 321

E. The code rims with no output.

57

Given:

10. interface A { void x(); }

11. class B implements A { public void x() { } public voidy() { } }

12. class C extends B { public void x() {} }

And:

20. java.util.List<A> list = new java.util.ArrayList<A>();

21. list.add(new B());

22. list.add(new C());

23. for (A a:list) {

24. a.x();

25. a.y();;

26. }

What is the result?

A. The code runs with no output.

B. An exception is thrown at runtime.

C. Compilation fails because of an error in line 20.

D. Compilation fails because of an error in line 21.

E. Compilation fails because of an error in line 23.

F. Compilation fails because of an error in line 25.

58

Given:

foo and bar are public references available to many other threads. foo

refers to a Thread and bar is an Object. The thread foo is currently

executing bar.wait(). From another thread, which statement is the

most reliable way to ensue that foo will stop executing wait()?

A. foo.notify();

B. bar.notify();

C. foo.notifyAll();

D. Thread.notify();

E. bar.notiFYAll();

F. Object.notify();

59

Given:

11. String test = “Test A. Test B. Test C.”;

12. // insert code here

13. String[] result = test.split(regex);

Which regular expression inserted at line 12 will correctly split test into

“Test A,” “Test B,” and “Test C”?

A. String regex = “”;B. String regex = “ “;

C. String regex = “.\*“.

D. String regex = “\\s”

E. String regex = “\\.\\s\*”;

F. String regex = “\\w[ \.] +“;

60

Given:

1. class TestA {

2. public void start() { System.out.println(”TestA”); }

3. }

4. public class TestB extends TestA {

5. public void start() { System.out.println(”TestB”); }6. public static void main(String[] args) {

7. ((TestA)new TestB()).start();

8. }

9. }

What is the result?

A. TestA

B. TestB

C. Compilation fails.

D. An exception is thrown at runtime.