51.

Given:

11. static class A {

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. new B().process();

19. }

What is the result?

A. B

B. The code runs with no output.

C. Compilation fails because of an error in line 12.

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

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

52.Given:

1. public class Threads5 {

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

3. new Thread(new Runnable() {

4. public void run() {

5. System.out.print("bar");

6. }}).start();

7. }

8. }

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes normally and prints "bar".

D. The code executes normally, but nothing prints.

53. Given:

1. public class TestOne implements Runnable {

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

3. Thread t = new Thread(new TestOne());

4. t.start();

5. System.out.print("Started");

6. t.join();

7. System.out.print("Complete");

8. }

9. public void run() {

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

11. System.out.print(i);

12. }

13. }

14. }

What can be a result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes and prints "StartedComplete".

D. The code executes and prints "StartedComplete0123".

E. The code executes and prints "Started0123Complete".

54. Click the Exhibit button.

<br/>

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What is the output if the main() method is run?

A. 4

B. 5

C. 8

D. 9

E. Compilation fails.

F. An exception is thrown at runtime.

G. It is impossible to determine for certain.

55.

Given:

1. public class TestFive {

2. private int x;

3. public void foo() {

4. int current = x;

5. x = current + 1;

6. }

7. public void go() {

8. for(int i = 0; i < 5; i++) {

9. new Thread() {

10. public void run() {

11. foo();

12. System.out.print(x + ", ");

13. } }.start();

14. } }

Which two changes, taken together, would guarantee the output: 1, 2, 3, 4, 5, ? (Choose two.)

A. move the line 12 print statement into the foo() method

B. change line 7 to public synchronized void go() {

C. change the variable declaration on line 2 to private volatile int x;

D. wrap the code inside the foo() method with a synchronized( this ) block

E. wrap the for loop code inside the go() method with a synchronized block synchronized(this) { //

for loop code here }

56.

Given:

1. public class Threads2 implements Runnable { <br/>

2. <br/>

3. public void run() { <br/>

4. System.out.println("run."); <br/>

5. throw new RuntimeException("Problem"); <br/>

6. } <br/>

7. public static void main(String[] args) { <br/>

8. Thread t = new Thread(new Threads2()); <br/>

9. t.start(); <br/>

10. System.out.println("End of method."); <br/>

11. } <br/>

12. }<br/>

Which two can be results? (Choose two.) <br/>

A. java.lang.RuntimeException: Problem

B. run.

java.lang.RuntimeException: Problem

C. End of method.

java.lang.RuntimeException: Problem

D. End of method.

run.

java.lang.RuntimeException: Problem

E. run.

java.lang.RuntimeException: Problem

End of method.

57. DRAG DROP

<br/>

<img src='./scjp/57.png'></img><br/>

Click the Task button.

58. DRAG DROP

<br/>

<img src='./scjp/58.png'></img><br/>

Click the Task button.

59. DRAG DROP

Click the Task button.

<br/>

<img src='./scjp/59.png'></img><br/>

60. DRAG DROP

Click the Task button.

<br/>

<img src='./scjp/60.png'></img><br/>

61. Given:

1. public class TestString1 {

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

3. String str = "420";

4. str += 42;

5. System.out.print(str);

6. }

7. }

What is the output?

A. 42

B. 420

C. 462

D. 42042

E. Compilation fails.

F. An exception is thrown at runtime.

62.

Given:

12. Date date = new Date();

13. df.setLocale(Locale.ITALY);

14. String s = df.format(date);

The variable df is an object of type DateFormat that has been initialized in line 11. What is the

result if this code is run on December 14, 2000?

A. The value of s is 14-dic-2000.

B. The value of s isDec 14, 2000.

C. An exception is thrown at runtime.

D. Compilation fails because of an error in line 13.

63.

Given:

1. public class KungFu {

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

3. Integer x = 400;

4. Integer y = x;

5. x++;

6. StringBuilder sb1 = new StringBuilder("123");

7. StringBuilder sb2 = sb1;

8. sb1.append("5");

9. System.out.println((x==y) + " " + (sb1==sb2));

10. }

11. }

What is the result?

A. true true

B. false true

C. true false

D. false false

E. Compilation fails.

F. An exception is thrown at runtime.

64.

Given that the current directory is empty, and that the user has read and write privileges to the

current directory, and the following:

1. import java.io.\*;

2. public class Maker {

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

4. File dir = new File("dir");

5. File f = new File(dir, "f");

6. }

7. }

Which statement is true?

A. Compilation fails.

B. Nothing is added to the file system.

C. Only a new file is created on the file system.

D. Only a new directory is created on the file system.

E. Both a new file and a new directory are created on the file system.

65.

Given:

12. String csv = "Sue,5,true,3";

13. Scanner scanner = new Scanner( csv );

14. scanner.useDelimiter(",");

15. int age = scanner.nextInt();

What is the result?

A. Compilation fails.

B. After line 15, the value of age is 5.

C. After line 15, the value of age is 3.

D. An exception is thrown at runtime.

66. Given that t1 is a reference to a live thread, which is true?

A. The Thread.sleep() method can take t1 as an argument.

B. The Object.notify() method can take t1 as an argument.

C. The Thread.yield() method can take t1 as an argument.

D. The Thread.setPriority() method can take t1 as an argument.

E. The Object.notify() method arbitrarily chooses which thread to notify.

67.

Given that Triangle implements Runnable, and:

31. void go() throws Exception {

32. Thread t = new Thread(new Triangle());

33. t.start();

34. for(int x = 1; x < 100000; x++) {

35. //insert code here

36. if(x%100 == 0) System.out.print("g");

37. } }

38. public void run() {

39. try {

40. for(int x = 1; x < 100000; x++) {

41. // insert the same code here

42. if(x%100 == 0) System.out.print("t");

43. }

44. } catch (Exception e) { }

45. }

Which two statements, inserted independently at both lines 35 and 41, tend to allow both threads

to temporarily pause and allow the other thread to execute? (Choose two.)

A. Thread.wait();

B. Thread.join();

C. Thread.yield();

D. Thread.sleep(1);

E. Thread.notify();

68.

Given:

1. public class Threads3 implements Runnable {

2. public void run() {

3. System.out.print("running");

4. }

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

6. Thread t = new Thread(new Threads3());

7. t.run();

8. t.run();

9. t.start();

10. }

11. }

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes and prints "running".

D. The code executes and prints "runningrunning".

E. The code executes and prints "runningrunningrunning".

69.

Given:

1. public class Threads5 {

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

3. new Thread(new Runnable() {

4. public void run() {

5. System.out.print("bar");

6. }}).start();

7. }

8. }

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. The code executes normally and prints "bar".

D. The code executes normally, but nothing prints.

70. Given:

11. public class PingPong implements Runnable {

12. synchronized void hit(long n) {

13. for(int i = 1; i < 3; i++)

14. System.out.print(n + "-" + i + " ");

15. }

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

17. new Thread(new PingPong()).start();

18. new Thread(new PingPong()).start();

19. }

20. public void run() {

21. hit(Thread.currentThread().getId());

22. }

23. }

Which two statements are true? (Choose two.)

A. The output could be 8-1 7-2 8-2 7-1

B. The output could be 7-1 7-2 8-1 6-1

C. The output could be 8-1 7-1 7-2 8-2

D. The output could be 8-1 8-2 7-1 7-2

71. Given:

10. interface A { void x(); }

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

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.

72. Given:

11. class Mammal { }

12.

13. class Raccoon extends Mammal {

14. Mammal m = new Mammal();

15. }

16.

17. class BabyRaccoon extends Mammal { }

Which four statements are true? (Choose four.)

A. Raccoon is-a Mammal.

B. Raccoon has-a Mammal.

C. BabyRaccoon is-a Mammal.

D. BabyRaccoon is-a Raccoon.

E. BabyRaccoon has-a Mammal.

F. BabyRaccoon is-a BabyRaccoon.

73. Given:

10: public class Hello {

11: String title;

12: int value;

13: public Hello() {

14: title += " World";

15: }

16: public Hello(int value) {

17: this.value = value;

18: title = "Hello";

19: Hello();

20: }

21: } and:

30: Hello c = new Hello(5);

31: System.out.println(c.title);

What is the result?

A. Hello

B. Hello World

C. Compilation fails.

D. Hello World 5

E. The code runs with no output.

F. An exception is thrown at runtime.

74. Given:

1. class ClassA {

2. public int numberOfInstances;

3. protected ClassA(int numberOfInstances) {

4. this.numberOfInstances = numberOfInstances;

5. }

6. }

7. public class ExtendedA extends ClassA {

8. private ExtendedA(int numberOfInstances) {

9. super(numberOfInstances);

10. }

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

12. ExtendedA ext = new ExtendedA(420);

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

14. }

15. }

Which statement 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.

75.

Given:

1. public class Target {

2. private int i = 0;

3. public int addOne(){

4. return ++i;

5. }

6. } And:

1. public class Client {

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

3. System.out.println(new Target().addOne());

4. }

5. }

Which change can you make to Target without affecting Client?

A. Line 4 of class Target can be changed to return i++;

B. Line 2 of class Target can be changed to private int i = 1;

C. Line 3 of class Target can be changed to private int addOne(){

D. Line 2 of class Target can be changed to private Integer i = 0;

76.

Given:

1. public class Blip {

2. protected int blipvert(int x) { return 0; }

3. }

4. class Vert extends Blip {

5. // insert code here

6. }

Which five methods, inserted independently at line 5, will compile? (Choose five.)

A. public int blipvert(int x) { return 0; }

B. private int blipvert(int x) { return 0; }

C. private int blipvert(long x) { return 0; }

D. protected long blipvert(int x) { return 0; }

E. protected int blipvert(long x) { return 0; }

F. protected long blipvert(long x) { return 0; }

G. protected long blipvert(int x, int y) { return 0; }

77.

Given:

1. class Pizza { <br/>

2. java.util.ArrayList toppings; <br/>

3. public final void addTopping(String topping) { <br/>

4. toppings.add(topping); <br/>

5. } <br/>

6. } <br/>

7. public class PepperoniPizza extends Pizza { <br/>

8. public void addTopping(String topping) { <br/>

9. System.out.println("Cannot add Toppings"); <br/>

10. } <br/>

11. public static void main(String[] args) { <br/>

12. Pizza pizza = new PepperoniPizza(); <br/>

13. pizza.addTopping("Mushrooms"); <br/>

14. } <br/>

15. } <br/>

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What is the result? <br/>

A. Compilation fails.

B. Cannot add Toppings

C. The code runs with no output.

D. A NullPointerException is thrown in Line 4.

78.

Given:

11. class ClassA {}

12. class ClassB extends ClassA {}

13. class ClassC extends ClassA {} and:

21. ClassA p0 = new ClassA();

22. ClassB p1 = new ClassB();

23. ClassC p2 = new ClassC();

24. ClassA p3 = new ClassB();

25. ClassA p4 = new ClassC();

Which three are valid? (Choose three.)

A. p0 = p1;

B. p1 = p2;

C. p2 = p4;

D. p2 = (ClassC)p1;

E. p1 = (ClassB)p3;

F. p2 = (ClassC)p4;

79. Given two files, GrizzlyBear.java and Salmon.java:

1. package animals.mammals;

2.

3. public class GrizzlyBear extends Bear {

4. void hunt() {

5. Salmon s = findSalmon();

6. s.consume();

7. }

8. }

1. package animals.fish;

2.

3. public class Salmon extends Fish {

4. public void consume() { /\* do stuff \*/ }

5. }

If both classes are in the correct directories for their packages, and the Mammal class correctly

defines the findSalmon() method, which change allows this code to compile?

A. add import animals.mammals.\*; at line2 in Salmon.java

B. add import animals.fish.\*; at line2 in GrizzlyBear.java

C. add import animals.fish.Salmon.\*; at line2 in GrizzlyBear.java

D. add import animals.mammals.GrizzlyBear.\*; at line2 in Salmon.java

80. Given:

1. package com.company.application;

2.

3. public class MainClass {

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

5. }

And MainClass exists in the /apps/com/company/application directory. Assume the CLASSPATH

environment variable is set to "." (current directory). Which two java commands entered at the

command line will run MainClass? (Choose two.)

A. java MainClass if run from the /apps directory

B. java com.company.application.MainClass if run from the /apps directory

C. java -classpath /apps com.company.application.MainClass if run from any directory

D. java -classpath . MainClass if run from the /apps/com/company/application directory

E. java -classpath /apps/com/company/application:. MainClass if run from the /apps directory

F. java com.company.application.MainClass if run from the /apps/com/company/application

directory

81. Click the Exhibit button. Which three code fragments, added individually at line 29, produce the

output 100? (Choose three.)

<br/>

<img src='./scjp/81.png'></img><br/>

A. n = 100;

B. i.setX( 100 );

C. o.getY().setX( 100 );

D. i = new Inner(); i.setX( 100 );

E. o.setY( i ); i = new Inner(); i.setX( 100 );

F. i = new Inner(); i.setX( 100 ); o.setY( i );

82. A developer is creating a class Book, that needs to access class Paper. The Paper class is

deployed in a JAR named myLib.jar. Which three, taken independently, will allow the developer to

use the Paper class while compiling the Book class? (Choose three.)

A. The JAR file is located at $JAVA\_HOME/jre/classes/myLib.jar.

B. The JAR file is located at $JAVA\_HOME/jre/lib/ext/myLib.jar..

C. The JAR file is located at /foo/myLib.jar and a classpath environment variable is set that

includes /foo/myLib.jar/Paper.class.

D. The JAR file is located at /foo/myLib.jar and a classpath environment variable is set that

includes /foo/myLib.jar.

E. The JAR file is located at /foo/myLib.jar and the Book class is compiled using javac -cp

/foo/myLib.jar/Paper Book.java.

F. The JAR file is located at /foo/myLib.jar and the Book class is compiled using javac -d

/foo/myLib.jar Book.java

G. The JAR file is located at /foo/myLib.jar and the Book class is compiled using javac -classpath

/foo/myLib.jar Book.java

83. Given:

11. interface DeclareStuff {

12. public static final int EASY = 3;

13. void doStuff(int t); }

14. public class TestDeclare implements DeclareStuff {

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

16. int x = 5;

17. new TestDeclare().doStuff(++x);

18. }

19. void doStuff(int s) {

20. s += EASY + ++s;

21. System.out.println("s " + s);

22. }

23. }

What is the result?

A. s 14

B. s 16

C. s 10

D. Compilation fails.

E. An exception is thrown at runtime.

84. Given:

11. public class Commander {

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

13. String myProp = /\* insert code here \*/

14. System.out.println(myProp);

15. }

16. }

and the command line: java -Dprop.custom=gobstopper Commander Which two, placed on line

13, will produce the output gobstopper? (Choose two.)

A. System.load("prop.custom");

B. System.getenv("prop.custom");

C. System.property("prop.custom");

D. System.getProperty("prop.custom");

E. System.getProperties().getProperty("prop.custom");

85. Given:

3. public class Spock {

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

5. Long tail = 2000L;

6. Long distance = 1999L;

7. Long story = 1000L;

8. if((tail > distance) ^ ((story \* 2) == tail))

9. System.out.print("1");

10. if((distance + 1 != tail) ^ ((story \* 2) == distance))

11. System.out.print("2");

12. }

13. }

What is the result?

A. 1

B. 2

C. 12

D. Compilation fails.

E. No output is produced.

F. An exception is thrown at runtime.

86. Given:

1. public class GC {

2. private Object o;

3. private void doSomethingElse(Object obj) { o = obj; }

4. public void doSomething() {

5. Object o = new Object();

6. doSomethingElse(o);

7. o = new Object();

8. doSomethingElse(null);

9. o = null;

10. }

11. }

When the doSomething method is called, after which line does the Object created in line 5

become available for garbage collection?

A. Line 5

B. Line 6

C. Line 7

D. Line 8

E. Line 9

F. Line 10

87. Click the Exhibit button. What is the result?

<br/>

<img src='./scjp/87.png'></img><br/>

A. go in Goban

go in Sente

B. go in Sente

go in Goban

C. go in Sente

go in Goban

D. go in Goban

go in Sente

E. Compilation fails because of an error in line 17.

88.

Given:

1. public class Plant {

2. private String name;

3. public Plant(String name) { this.name = name; }

4. public String getName() { return name; }

5. }

1. public class Tree extends Plant {

2. public void growFruit() { }

3. public void dropLeaves() { }

4. }

Which statement is true?

A. The code will compile without changes.

B. The code will compile if public Tree() { Plant(); } is added to the Tree class.

C. The code will compile if public Plant() { Tree(); } is added to the Plant class.

D. The code will compile if public Plant() { this("fern"); } is added to the Plant class.

E. The code will compile if public Plant() { Plant("fern"); } is added to the Plant class.

89.

Click the Exhibit button.

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.

90.

Given:

11. public enum Title {

12. MR("Mr."), MRS("Mrs."), MS("Ms.");

13. private final String title;

14. private Title(String t) { title = t; }

15. public String format(String last, String first) {

16. return title + " " + first + " " + last;

17. }

18. }

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

20. System.out.println(Title.MR.format("Doe", "John"));

21. }

What is the result?

A. Mr. John Doe

B. An exception is thrown at runtime.

C. Compilation fails because of an error in line 12.

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

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

91.

Given:

11. public interface A111 {

12. String s = "yo";

13. public void method1();

14. }

17. interface B { }

20. interface C extends A111, B {

21. public void method1();

22. public void method1(int x);

23. }

What is the result?

A. Compilation succeeds.

B. Compilation fails due to multiple errors.

C. Compilation fails due to an error only on line 20.

D. Compilation fails due to an error only on line 21.

E. Compilation fails due to an error only on line 22.

F. Compilation fails due to an error only on line 12.

92. Given:

1. interface TestA { String toString(); }

2. public class Test {

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

4. System.out.println(new TestA() {

5. public String toString() { return "test"; }

6. });

7. }

8. }

What is the result?

A. test

B. null

C. An exception is thrown at runtime.

D. Compilation fails because of an error in line 1.

E. Compilation fails because of an error in line 4.

F. Compilation fails because of an error in line 5.

93. Given:

11. class Alpha {

12. public void foo() { System.out.print("Afoo "); }

13. }

14. public class Beta extends Alpha {

15. public void foo() { System.out.print("Bfoo "); }

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

17. Alpha a = new Beta();

18. Beta b = (Beta)a;

19. a.foo();

20. b.foo();

21. }

22. }

What is the result?

A. Afoo Afoo

B. Afoo Bfoo

C. Bfoo Afoo

D. Bfoo Bfoo

E. Compilation fails.

F. An exception is thrown at runtime.

94. Given:

10. abstract public class Employee {

11. protected abstract double getSalesAmount();

12. public double getCommision() {

13. return getSalesAmount() \* 0.15;

14. }

15. }

16. class Sales extends Employee {

17. // insert method here

18. }

Which two methods, inserted independently at line 17, correctly complete the Sales class?

(Choose two.)

A. double getSalesAmount() { return 1230.45; }

B. public double getSalesAmount() { return 1230.45; }

C. private double getSalesAmount() { return 1230.45; }

D. protected double getSalesAmount() { return 1230.45; }

95. Click the Exhibit button. 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.

96.

Given:

3. import java.util.\*;

4. public class Mapit {

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

6. Set<Integer> set = new HashSet<Integer>();

7. Integer i1 = 45;

8. Integer i2 = 46;

9. set.add(i1);

10. set.add(i1);

11. set.add(i2); System.out.print(set.size() + " ");

12. set.remove(i1); System.out.print(set.size() + " ");

13. i2 = 47;

14. set.remove(i2); System.out.print(set.size() + " ");

15. }

16. }

What is the result?

A. 2 1 0

B. 2 1 1

C. 3 2 1

D. 3 2 2

E. Compilation fails.

F. An exception is thrown at runtime.

97. Given:

1. public class Score implements Comparable<Score> {

2. private int wins, losses;

3. public Score(int w, int l) { wins = w; losses = l; }

4. public int getWins() { return wins; }

5. public int getLosses() { return losses; }

6. public String toString() {

7. return "<" + wins + "," + losses + ">";

8. }

9. // insert code here

10. }

Which method will complete this class?

A. public int compareTo(Object o){/\*more code here\*/}

B. public int compareTo(Score other){/\*more code here\*/}

C. public int compare(Score s1,Score s2){/\*more code here\*/}

D. public int compare(Object o1,Object o2){/\*more code here\*/}

98. A programmer has an algorithm that requires a java.util.List that provides an efficient

implementation of add(0, object), but does NOT need to support quick random access. What

supports these requirements?

A. java.util.Queue

B. java.util.ArrayList

C. java.util.LinearList

D. java.util.LinkedList

99. Given:

12. import java.util.\*;

13. public class Explorer3 {

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

15. TreeSet<Integer> s = new TreeSet<Integer>();

16. TreeSet<Integer> subs = new TreeSet<Integer>();

17. for(int i = 606; i < 613; i++)

18. if(i%2 == 0) s.add(i);

19. subs = (TreeSet)s.subSet(608, true, 611, true);

20. subs.add(629);

21. System.out.println(s + " " + subs);

22. }

23. }

What is the result?

A. Compilation fails.

B. An exception is thrown at runtime.

C. [608, 610, 612, 629] [608, 610]

D. [608, 610, 612, 629] [608, 610, 629]

E. [606, 608, 610, 612, 629] [608, 610]

F. [606, 608, 610, 612, 629] [608, 610, 629]

100. Given:

11. // insert code here

12. private N min, max;

13. public N getMin() { return min; }

14. public N getMax() { return max; }

15. public void add(N added) {

16. if (min == null || added.doubleValue() < min.doubleValue())

17. min = added;

18. if (max == null || added.doubleValue() > max.doubleValue()) 19. max = added;

20. }

21. }

Which two, inserted at line 11, will allow the code to compile? (Choose two.)

A. public class MinMax<?> {

B. public class MinMax<? extends Number> {

C. public class MinMax<N extends Object> {

D. public class MinMax<N extends Number> {

E. public class MinMax<? extends Object> {

F. public class MinMax<N extends Integer> {