Oracle_RealExamQuestions.Com_1Z0-851_v2011-11-09_265q_By-Bomas

Exam A

QUESTION 1

Given:

```
public abstract class Shape {
    private int x;
    private int y;

    public abstract void draw();

    public void setAnchor(int x, int y) {
        this.x = x;
        this.y = y;
    }
}
```

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 */}
}
```

Correct Answer: BE

QUESTION 2

Given

```
11. public interface Status {
12.    /* insert code here */ int MY_VALUE = 10;
13. }
```

Which three are valid on line 12? (Choose three.)

A. final
B. static
C. native
D. public
E. private
F. abstract
G. protected

Correct Answer: ABD

QUESTION 3
Given:

```
public interface A {
   String DEFAULT_GREETING = "Hello World";
   public void method1();
}
```

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 {}

Correct Answer: A

QUESTION 4
Which statement is true about the classes and interfaces in the exhibit?

```
01. public interface A {
02.   public void doSomething(String thing);
03. }

01. public class AImpl implements A {
02.    public void doSomething(String msg) {}
03. }

01. public class B {
02.   public A doit(){
03.        //more code here
04.    }
05.    public String execute(){
06        //more code here
07    }
08. }

01. public class C extends B {
02.   public AImpl doit(){
03.        //more code here
04.    }
05.
06.    public Object execute() {
07.        //more code here
08.    }
09. }
```

A. Compilation will succeed for all classes and interfaces.
B. Compilation of class C will fail because of an error in line 2.
C. Compilation of class C will fail because of an error in line 6.
D. Compilation of class AImpl will fail because of an error in line 2.

Correct Answer: C

QUESTION 5
Click the Exhibit button.

```
1.  public class GoTest {
2.     public static void main(String[] args) {
3.         Sente a = new Sente(); a.go();
4.         Goban b = new Goban(); b.go();
5.          Stone c = new Stone(); c.go();
6.      }
7.  }
8.
9.  class Sente implements Go {
10.     public void go(){
11.         System.out.println("go in Sente");
12.     }
13. }
14.
15. class Goban extends Sente {
16.     public void go(){
17.         System.out.println("go in Goban");
18.     }
19.
20. }
21. class Stone extends Goban implements Go{
22. }
23.
24. interface Go { public void go(); }
```

What is the result?

A. go in Goban go in Sente go in Sente
B. go in Sente go in Sente go in Goban
C. go in Sente go in Goban go in Goban
D. go in Goban go in Goban go in Sente
E. Compilation fails because of an error in line 17.

Correct Answer: C

QUESTION 6
Click the Exhibit button.

```
10. interface Foo{
11.     int bar();
12. }
13.
14. public class Beta {
15.
16.     class A implements Foo {
17.         public int bar(){ return 1; }
18.     }
19.
20.     public int fubar(Foo foo){ return foo.bar(); }
21.
22.     public void testFoo(){
23.
24.         class A implements Foo{
25.             public int bar(){return 2;}
26.         }
27.
28.         System.out.println(fubar(new A()));
29.     }
30.
31.     public static void main(String[] args) {
32.         new Beta().testFoo();
33.     }
34. }
```

Which three statements are true? (Choose three.)

A. Compilation fails.
B. The code compiles and the output is 2.
C. If lines 16, 17 and 18 were removed, compilation would fail.
D. If lines 24, 25 and 26 were removed, compilation would fail.
E. If lines 16, 17 and 18 were removed, the code would compile and the output would be 2.
F. If lines 24, 25 and 26 were removed, the code would compile and the output would be 1.

Correct Answer: BEF

QUESTION 7
Given:

```
interface DeclareStuff {
    public static final int EASY = 3;

    void doStuff(int t);
}

public class TestDeclare implements DeclareStuff {
    public static void main(String[] args) {
        int x = 5;
        new TestDeclare().doStuff(++x);
    }

    void doStuff(int s) {
        s += EASY + ++s;
        System.out.println("s " + s);
    }
}
```

What is the result?

A. s 14
B. s 16
C. s 10
D. Compilation fails.
E. An exception is thrown at runtime.

Correct Answer: D

QUESTION 8
Given:

```
interface Fish {
}

class Perch implements Fish {
}

class Walleye extends Perch {
}

class Bluegill {
}

public class Fisherman {
    public static void main(String[] args) {
        Fish f = new Walleye();
        Walleye w = new Walleye();
        Bluegill b = new Bluegill();
        if (f instanceof Perch)
```

```
            System.out.print("f-p ");
        if (w instanceof Fish)
            System.out.print("w-f ");
        if (b instanceof Fish)
            System.out.print("b-f ");
    }
}
```

What is the result?

A. w-f
B. f-p w-f
C. w-f b-f
D. f-p w-f b-f
E. Compilation fails.
F. An exception is thrown at runtime.

Correct Answer: B

QUESTION 9
Given:

```
public interface A111 {
    String s = "yo";

    public void method1();
}

interface B {
}

interface C extends A111, B {
    public void method1();

    public void method1(int x);
}
```

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.

Correct Answer: A

QUESTION 10
Given:

```
01. interface TestA { String toString(); }
02.
03. public class Test {
04.    public static void main(String[] args) {
05.        System.out.println(new TestA() {
06.            public String toString() { return "test"; }
07.        });
08.    }
09. }
```

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 5.
F. Compilation fails because of an error in line 6.

Correct Answer: A

QUESTION 11
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;`

Correct Answer: B

QUESTION 12
Given:

```
01. interface Animal { void makeNoise(); }
02. class Horse implements Animal {
03.    Long weight = 1200L;
04.    public void makeNoise() { System.out.println("whinny"); }
05. }
06.
07. public class Icelandic extends Horse {
08.    public void makeNoise() { System.out.println("vinny"); }
09.    public static void main(String[] args) {
10.        Icelandic i1 = new Icelandic();
11.        Icelandic i2 = new Icelandic();
12.        Icelandic i3 = new Icelandic();
13.        i3 = i1; i1 = i2; i2 = null; i3 = i1;
14.    }
15. }
```

When line 14 is reached, how many objects are eligible for the garbage collector?

A. 0
B. 1
C. 2
D. 3
E. 4
F. 6

Correct Answer: E

QUESTION 13
Given:

```
interface Jumper { public void jump(); }

class Animal {}

class Dog extends Animal {
    Tail tail;
}

class Beagle extends Dog implements Jumper{
    public void jump() {}
}

class Cat implements Jumper{
    public void jump() {}
}
```

Which three are true? (Choose three.)

A. Cat is-a Animal
B. Cat is-a Jumper
C. Dog is-a Animal
D. Dog is-a Jumper
E. Cat has-a Animal
F. Beagle has-a Tail
G. Beagle has-a Jumper

Correct Answer: BCF

QUESTION 14
Given:

```
09. interface Foo { int bar(); }
10.
11. public class Sprite {
12.    public int fubar( Foo foo ) { return foo.bar(); }
13.    public void testFoo() {
14.        fubar(
15.          //insert code here 15
16.        );
17.    }
18. }
```

Which code, inserted at line 15, allows the class Sprite to compile?

A. `Foo { public int bar() { return 1; }`
B. `new Foo { public int bar() { return 1; }`
C. `new Foo() { public int bar() { return 1; }`
D. `new class Foo { public int bar() { return 1; }`

Correct Answer: C

QUESTION 15
Given:

```
interface DoStuff2 {
    float getRange(int low, int high);
}
```

```
interface DoMore {
    float getAvg(int a, int b, int c);
}

abstract class DoAbstract implements DoStuff2, DoMore {
}

06. class DoStuff implements DoStuff2 {
07.    public float getRange(int x, int y) {
08.        return 3.14f;
09.    }
10. }
11.
12. interface DoAll extends DoMore {
13.    float getAvg(int a, int b, int c, int d);
14. }
```

What is the result?

A. The file will compile without error.
B. Compilation fails. Only line 7 contains an error.
C. Compilation fails. Only line 12 contains an error.
D. Compilation fails. Only line 13 contains an error.
E. Compilation fails. Only lines 7 and 12 contain errors.
F. Compilation fails. Only lines 7 and 13 contain errors.
G. Compilation fails. Lines 7, 12, and 13 contain errors.

Correct Answer: A

QUESTION 16
Given:

```
01. interface A { public void aMethod(); }
02. interface B { public void bMethod(); }
03. interface C extends A,B { public void cMethod(); }
04. class D implements B {
05. public void bMethod(){}
06. }
07. class E extends D implements C {
08. public void aMethod(){}
09. public void bMethod(){}
10. public void cMethod(){}
11. }
```

What is the result?

A. Compilation fails because of an error in line 3.
B. Compilation fails because of an error in line 7.
C. Compilation fails because of an error in line 9.
D. If you define `D e = new E()`, then e.bMethod() invokes the version of bMethod() defined in Line 5.
E. If you define `D e = (D)(new E())`, then e.bMethod() invokes the version of bMethod() defined in Line 5.
F. If you define `D e = (D)(new E())`, then e.bMethod() invokes the version of bMethod() defined in Line 9.

Correct Answer: F

QUESTION 17
Given:

```
interface Data { public void load(); }
```

```
abstract class Info { public abstract void load(); }
```

Which class correctly uses the Data interface and Info class?

```
A. public class Employee extends Info implements Data {
        public void load() { /*do something*/ }
   }
B. public class Employee implements Info extends Data {
        public void load() { /*do something*/ }
   }
C. public class Employee extends Info implements Data {
        public void load(){ /*do something*/ }
        public void Info.load(){ /*do something*/ }
   }
D. public class Employee implements Info extends Data {
        public void Data.load(){ /*do something*/ }
        public void load(){ /*do something*/ }
   }
E. public class Employee implements Info extends Data {
        public void load(){ /*do something*/ }
        public void Info.load(){ /*do something*/ }
   }
F. public class Employee extends Info implements Data{
        public void Data.load() { /*do something*/ }
        public void Info.load() { /*do something*/ }
   }
```

Correct Answer: A

QUESTION 18
Which two classes correctly implement both the `java.lang.Runnable` and the `java.lang.Cloneable` interfaces? (Choose two.)

```
A. public class Session implements Runnable, Cloneable {
        public void run();
        public Object clone();
   }
B. public class Session extends Runnable, Cloneable {
        public void run() { /* do something */ }
        public Object clone() { /* make a copy */ }
   }
C. public class Session implements Runnable, Cloneable {
        public void run() { /* do something */ }
        public Object clone() { /* make a copy */ }
   }
D. public abstract class Session
   implements Runnable, Cloneable {
        public void run() { /* do something */ }
        public Object clone() { /*make a copy */ }
   }
E. public class Session implements Runnable, implements Cloneable {
        public void run() { /* do something */ }
        public Object clone() { /* make a copy */ }
   }
```

Correct Answer: CD

QUESTION 19
Given:

```
public interface A { public void m1(); }
```

```
class B implements A { }
class C implements A { public void m1() { } }
class D implements A { public void m1(int x) { } }
abstract class E implements A { }
abstract class F implements A { public void m1() { } }
abstract class G implements A { public void m1(int x) { } }
```

What is the result?

A. Compilation succeeds.
B. Exactly one class does NOT compile.
C. Exactly two classes do NOT compile.
D. Exactly four classes do NOT compile.
E. Exactly three classes do NOT compile.

Correct Answer: C

QUESTION 20
Given classes defined in two different files:

```
package util;

public class BitUtils {
    public static void process(byte[] b) { /* more code here */ }
}
```

```
1. package app;
2.
3. public class SomeApp {
4.     public static void main(String[] args) {
5.         byte[] bytes = new byte[256];
6.         // insert code here
7.     }
8. }
```

What is required at line 6 in class SomeApp to use the process method of BitUtils?

A. `process(bytes);`
B. `BitUtils.process(bytes);`
C. `util.BitUtils.process(bytes);`
D. SomeApp cannot use methods in BitUtils.
E. `import util.BitUtils.*;`
`process(bytes);`

Correct Answer: C

QUESTION 21
Given:

```
public class A{
  public void method1() {
        try {
            B b = new B();
            b.method2();
            //more code here
        } catch (TestException te){
            throw new RuntimeException(te);
        }
   }
}
```

```
public class B{
```

```
02.    public void method2() throws TestException {
03.        //more code here
04    }
05. }
```

```
01. class TestException extends Exception {
02. }
```

```
31. public void method() {
32.    A a = new A();
33.    a.method1();
34. }
```

Which statement is true if a TestException is thrown on line 3 of class B?

A. Line 33 must be called within a try block.
B. The exception thrown by method1 in class A is not required to be caught.
C. The method declared on line 31 must be declared to throw a RuntimeException.
D. On line 5 of class A, the call to method2 of class B does not need to be placed in a try/catch block.

Correct Answer: B

QUESTION 22
Given:

```
static void test() {
    try {
        String x = null;
        System.out.print(x.toString() + " ");
    }
    finally { System.out.print("finally "); }
}

public static void main(String[] args) {
    try { test(); }
    catch (Exception ex) { System.out.print("exception "); }
}
```

What is the result?

A. null
B. finally
C. null finally
D. Compilation fails.
E. finally exception

Correct Answer: E

QUESTION 23
Given:

```
static void test() throws Error {
    if (true) throw new AssertionError();
    System.out.print("test ");
}

public static void main(String[] args) {
    try { test(); }
    catch (Exception ex) { System.out.print("exception "); }
    System.out.print("end ");
}
```

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.

Correct Answer: E

QUESTION 24
Given:

```
01. class TestException extends Exception { }
02. class A {
03.    public String sayHello(String name) throws TestException {
04.        if(name == null) throw new TestException();
05       return "Hello " + name;
06.    }
07. }
08. public class TestA {
09.    public static void main(String[] args) {
10.        new A().sayHello("Aiko");
11.    }
12. }
```

Which statement is true?

A. Compilation succeeds.
B. Class A does not compile.
C. The method declared on line 9 cannot be modified to throw TestException.
D. TestA compiles if line 10 is enclosed in a try/catch block that catches TestException.

Correct Answer: D

QUESTION 25
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.

Correct Answer: A

QUESTION 26
Given:

```
11. class X { public void foo() { System.out.print("X "); } }
12.
13. public class SubB extends X {
14.    public void foo() throws RuntimeException {
15.        super.foo();
16.        if (true) throw new RuntimeException();
17.        System.out.print("B ");
18.    }
19.    public static void main(String[] args) {
20.        new SubB().foo();
21.    }
22. }
```

What is the result?

A. X, followed by an Exception.
B. No output, and an Exception is thrown.
C. Compilation fails due to an error on line 14.
D. Compilation fails due to an error on line 16.
E. Compilation fails due to an error on line 17.
F. X, followed by an Exception, followed by B.

Correct Answer: A

QUESTION 27
Given:

```
05. class A {
06.    void foo() throws Exception { throw new Exception(); }
07. }
08. class SubB2 extends A {
09.    void foo() { System.out.println("B "); }
10. }
11. class Tester {
12.    public static void main(String[] args) {
13.        A a = new SubB2();
14.        a.foo();
15.    }
16. }
```

What is the result?

A. B
B. B, followed by an Exception.
C. Compilation fails due to an error on line 9.
D. Compilation fails due to an error on line 14.
E. An Exception is thrown with no other output.

Correct Answer: D

QUESTION 28
Given:

```
import java.io.IOException;
class A {
   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.
20.     public static void main(String[] args) {
21.         try {
22.             new B().process();
23.         } catch (IOException e) {
24.             System.out.println("Exception");
25.         }
26.     }
27.}
```

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.

Correct Answer: D

QUESTION 29
Given:

```
class Pizza {
    java.util.ArrayList toppings;

    public final void addTopping(String topping) {
        toppings.add(topping);
    }
    public void removeTopping(String topping) {
        toppings.remove(topping);
    }
}

public class PepperoniPizza extends Pizza {
    public void addTopping(String topping) {
        System.out.println("Cannot add Toppings");
    }

    public static void main(String[] args) {
        Pizza pizza = new PepperoniPizza();
        pizza.addTopping("Mushrooms");
        pizza.removeTopping("Peperoni");
    }
}
```

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.

Correct Answer: A

QUESTION 30
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;

Correct Answer: D

QUESTION 31
Given:

```
01. public class Boxer1{
02.     Integer i;
03.     int x;
04.     public Boxer1(int y) {
05.         x = i+y;
06.         System.out.println(x);
07.     }
08.     public static void main(String[] args) {
09.         new Boxer1(new Integer(4));
10.     }
11. }
```

What is the result?

A. The value "4" is printed at the command line.
B. Compilation fails because of an error in line 5.
C. Compilation fails because of an error in line 9.
D. A NullPointerException occurs at runtime.
E. A NumberFormatException occurs at runtime.
F. An IllegalStateException occurs at runtime.

Correct Answer: D

QUESTION 32
Given:

```
public class BuildStuff {
    public static void main(String[] args) {
        Boolean test = new Boolean(true);
        Integer x = 343;
        Integer y = new BuildStuff().go(test, x);
        System.out.println(y);
    }
    int go(Boolean b, int i) {
        if(b) return (i/7);
        return (i/49);
    }
}
```

What is the result?

A. 7
B. 49
C. 343
D. Compilation fails.
E. An exception is thrown at runtime.

Correct Answer: B

QUESTION 33
Given:

```
11. public void testIfA() {
12.    if (testIfB("True")) {
13.        System.out.println("True");
14.    } else {
15.        System.out.println("Not true");
16.    }
17. }
18. public Boolean testIfB(String str) {
19.    return Boolean.valueOf(str);
20. }
```

What is the result when method testIfA is invoked?

A. True
B. Not true
C. An exception is thrown at runtime.
D. Compilation fails because of an error at line 12.
E. Compilation fails because of an error at line 19.

Correct Answer: A

QUESTION 34
Given:

```
09. class Line {
10.    public static class Point {}
11. }
12.
13. class Triangle {
14.    public Triangle(){
15.      // insert code here
16.    }
17. }
```

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 l = new Line();`
   `l.Point p = new l.Point();`

Correct Answer: B

QUESTION 35

Given:

```
package geometry;

public class Hypotenuse {
    public InnerTriangle it = new InnerTriangle();

    class InnerTriangle {
        public int base;
        public int height;
    }
}
```

Which statement is true about the class of an object that can reference the variable base?

A. It can be any class.
B. No class has access to base.
C. The class must belong to the geometry package.
D. The class must be a subclass of the class Hypotenuse.

Correct Answer: C

QUESTION 36
Given:

```
class Line {
    public class Point {
        public int x, y;
    }

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

class Triangle {
    public Triangle() {
        // insert code here
    }
}
```

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();`

Correct Answer: D

QUESTION 37
Given:

```
import java.io.*;

class Animal {
    Animal() {
        System.out.print("a");
    }
}

class Dog extends Animal implements Serializable {
    Dog() {
        System.out.print("d");
    }
}

public class Beagle extends Dog {
}
```

If an instance of class Beagle is created, then Serialized, then deSerialized, what is the result?

A. ad
B. ada
C. add
D. adad
E. Compilation fails.
F. An exception is thrown at runtime.

Correct Answer: B

QUESTION 38
Which code, inserted at line 14, will allow this class to correctly serialize and deserialize?

```
01. import java.io.*;
02. public class Foo implements Serializable {
03.    public int x, y;
04.    public Foo(int x, int y){
05.        this.x = x; this.y = y;
06.    }
07.
08.    private void writeObject(ObjectOutputStream s)
09.        throws IOException{
10.        s.writeInt(x); s.writeInt(y);
11.    }
12.
13.    private void readObject(ObjectInputStream s)
14.        throws IOException, ClassNotFoundException {
15.        //insert code here
16.    }
17. }
```

A. s.defaultReadObject();
B. this = s.defaultReadObject();
C. y = s.readInt(); x = s.readInt();
D. x = s.readInt(); y = s.readInt();

Correct Answer: D

QUESTION 39
Assuming that the serializeBanana() and the deserializeBanana() methods will correctly use Java serialization and given:

```
13. import java.io.*;
14. class Food implements Serializable {int good = 3;}
15. class Fruit extends Food {int juice = 5;}
16. public class Banana extends Fruit {
17.    int yellow = 4;
18.    public static void main(String [] args) {
19.        Banana b = new Banana(); Banana b2 = new Banana();
20.        b.serializeBanana(b); // assume correct serialization
21.        b2 = b.deserializeBanana(); // assume correct
22.        System.out.println("restore "+b2.yellow+ b2.juice+b2.good);
24.    }
25.    // more Banana methods go here
50. }
```

What is the result?

A. restore 400
B. restore 403
C. restore 453
D. Compilation fails.
E. An exception is thrown at runtime.

Correct Answer: C

QUESTION 40
Given:

```
04. public class Tahiti {
05.     Tahiti t;
06.
07.     public static void main(String[] args) {
08.         Tahiti t = new Tahiti();
09.         Tahiti t2 = t.go(t);
10.         t2 = null;
11.         // more code here
12.     }
13.
14.     Tahiti go(Tahiti t) {
15.         Tahiti t1 = new Tahiti();
16.         Tahiti t2 = new Tahiti();
17.         t1.t = t2;
18.         t2.t = t1;
19.         t.t = t2;
20.         return t1;
21.     }
22. }
```

When line 11 is reached, how many objects are eligible for garbage collection?

A. 0
B. 1
C. 2
D. 3
E. Compilation fails.

Correct Answer: A

QUESTION 41
Given:

```
11. public void genNumbers() {
12.         ArrayList numbers = new ArrayList();
13.         for (int i = 0; i < 10; i++) {
14.             int value = i * ((int) Math.random());
15.             Integer intObj = new Integer(value);
16.             numbers.add(intObj);
17.         }
18.         System.out.println(numbers);
19. }
```

Which line of code marks the earliest point that an object referenced by intObj becomes a candidate for garbage collection?

A. Line 16
B. Line 17

C. Line 18
D. Line 19
E. The object is NOT a candidate for garbage collection.

Correct Answer: D

QUESTION 42
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

Correct Answer: D

QUESTION 43
Given:

```
class Snoochy {
    Boochy booch;

    public Snoochy() { booch = new Boochy(this); }
}

class Boochy {
    Snoochy snooch;

    public Boochy(Snoochy s) { snooch = s; }
}
```

And the statements:

```
21. public static void main(String[] args) {
22.     Snoochy snoog = new Snoochy();
23.     snoog = null;
24.     // more code here
25. }
```

Which statement is true about the objects referenced by snoog, snooch, and booch immediately after line 23 executes?

A. None of these objects are eligible for garbage collection.
B. Only the object referenced by booch is eligible for garbage collection.

C. Only the object referenced by snoog is eligible for garbage collection.

D. Only the object referenced by snooch is eligible for garbage collection.

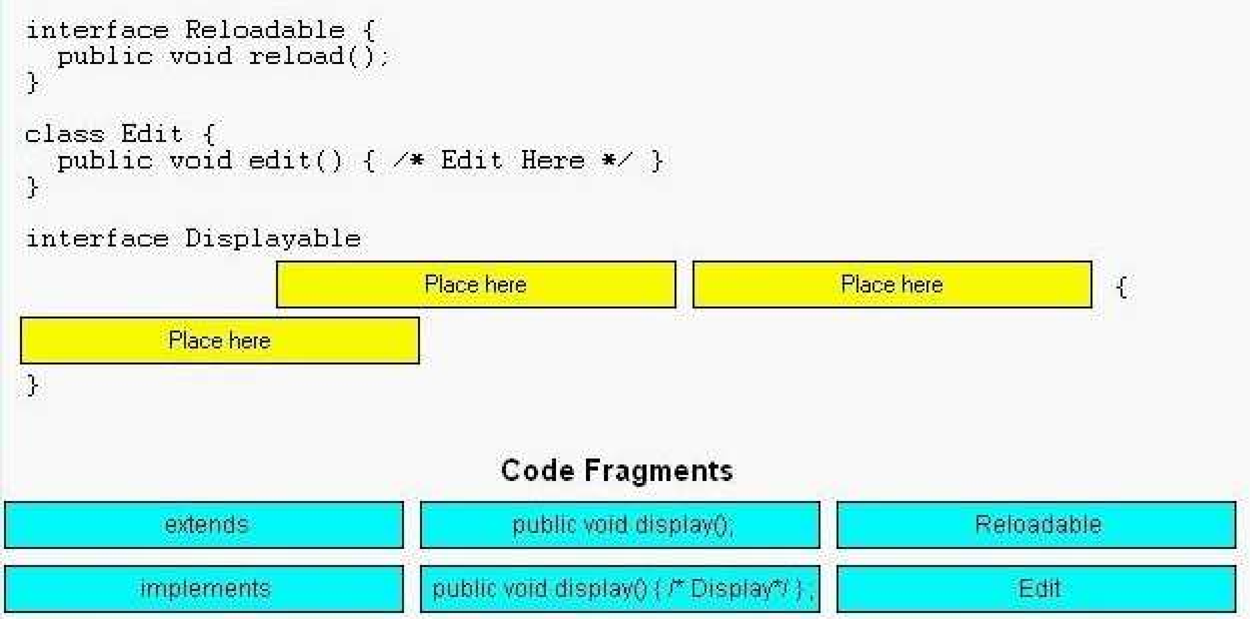
E. The objects referenced by snooch and booch are eligible for garbage collection.

Correct Answer: E

QUESTION 44

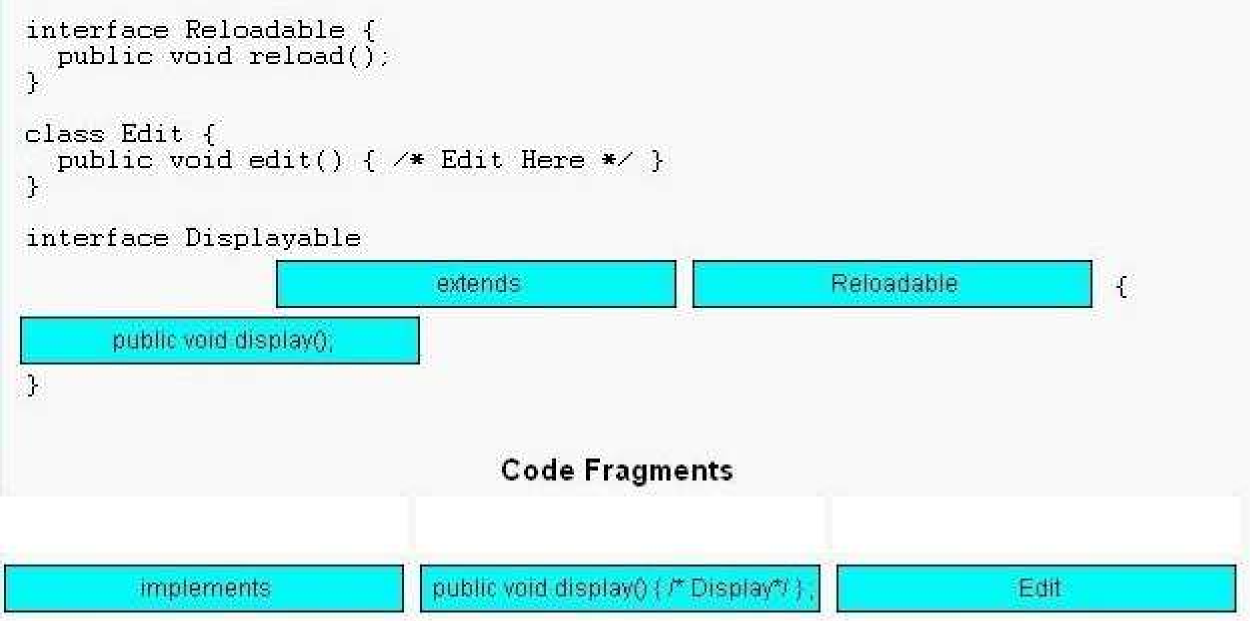
Place the code fragments in position to complete the Displayable interface.

Select and Place:



```
interface Reloadable {
  public void reload();
}

class Edit {
  public void edit() { /* Edit Here */ }
}

interface Displayable
```

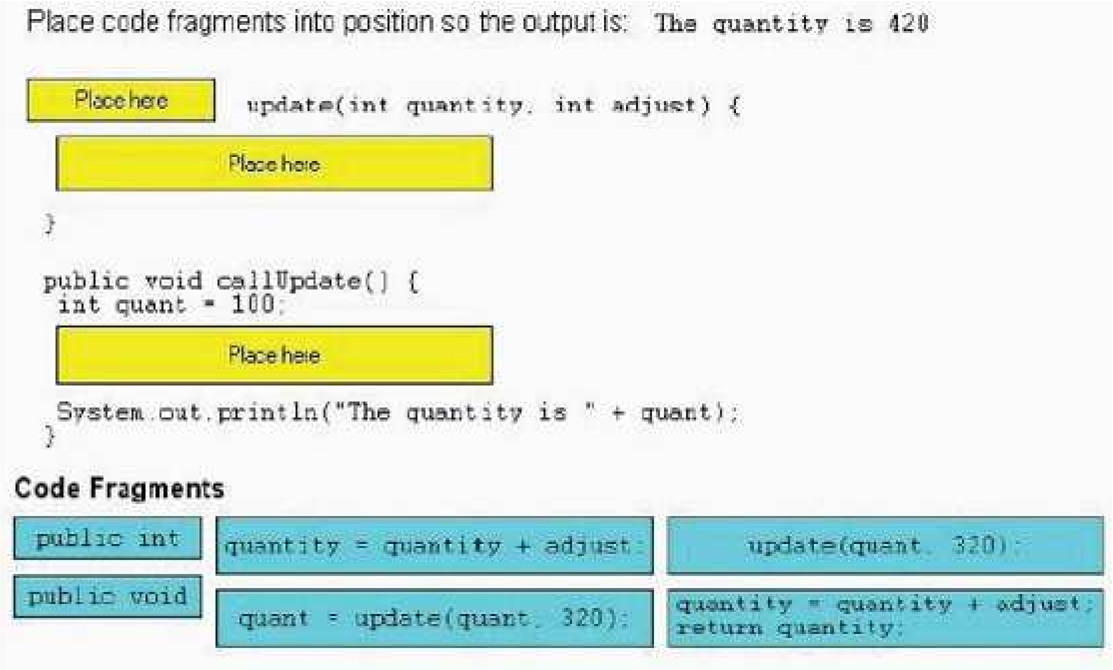
Correct Answer:



```
interface Reloadable {
  public void reload();
}

class Edit {
  public void edit() { /* Edit Here */ }
}

interface Displayable
```

QUESTION 45

Select and Place:



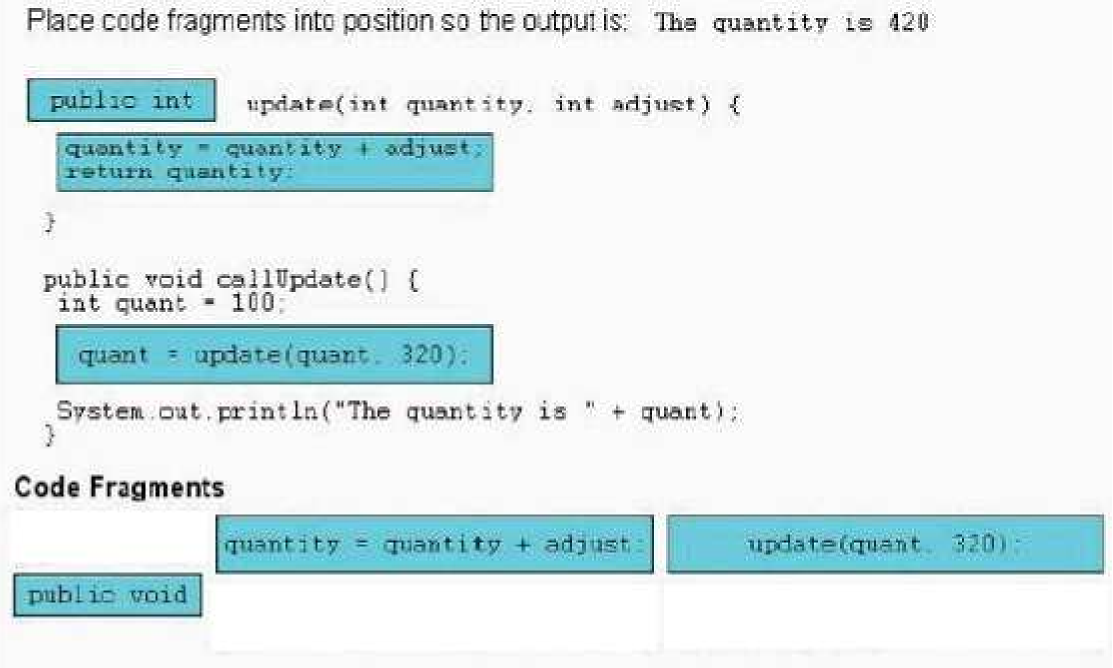
Place code fragments into position so the output is: `The quantity is 420`

```
Place here    update(int quantity, int adjust) {
  Place here
}

public void callUpdate() {
  int quant = 100;
  Place here
  System.out.println("The quantity is " + quant);
}
```

Code Fragments

```
public int
quantity = quantity + adjust;
update(quant, 320);
public void
quant = update(quant, 320);
quantity = quantity + adjust;
return quantity;
```

Correct Answer:



Place code fragments into position so the output is: `The quantity is 420`

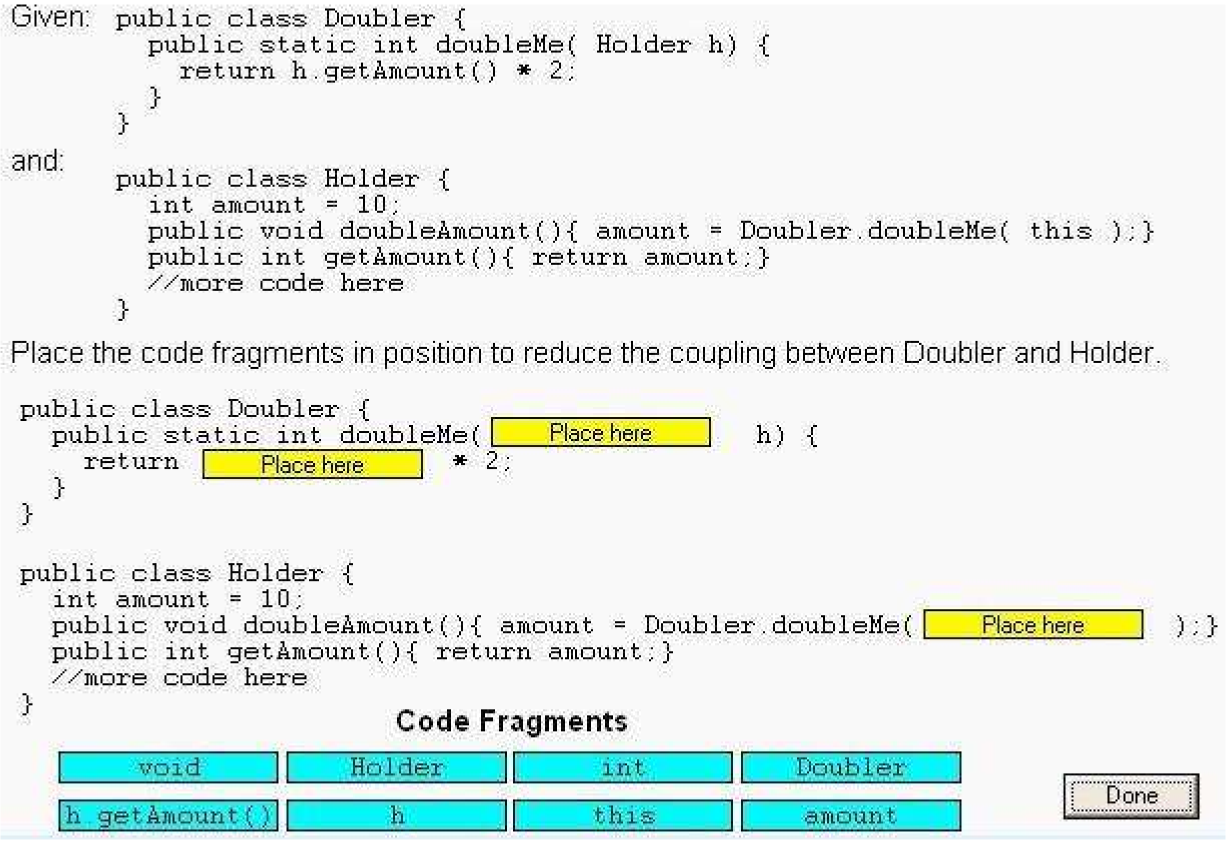
```
public int    update(int quantity, int adjust) {
  quantity = quantity + adjust;
  return quantity;
}

public void callUpdate() {
  int quant = 100;
  quant = update(quant, 320);
  System.out.println("The quantity is " + quant);
}
```

Code Fragments

```
quantity = quantity + adjust;
update(quant, 320);
public void
```

QUESTION 46

Select and Place:



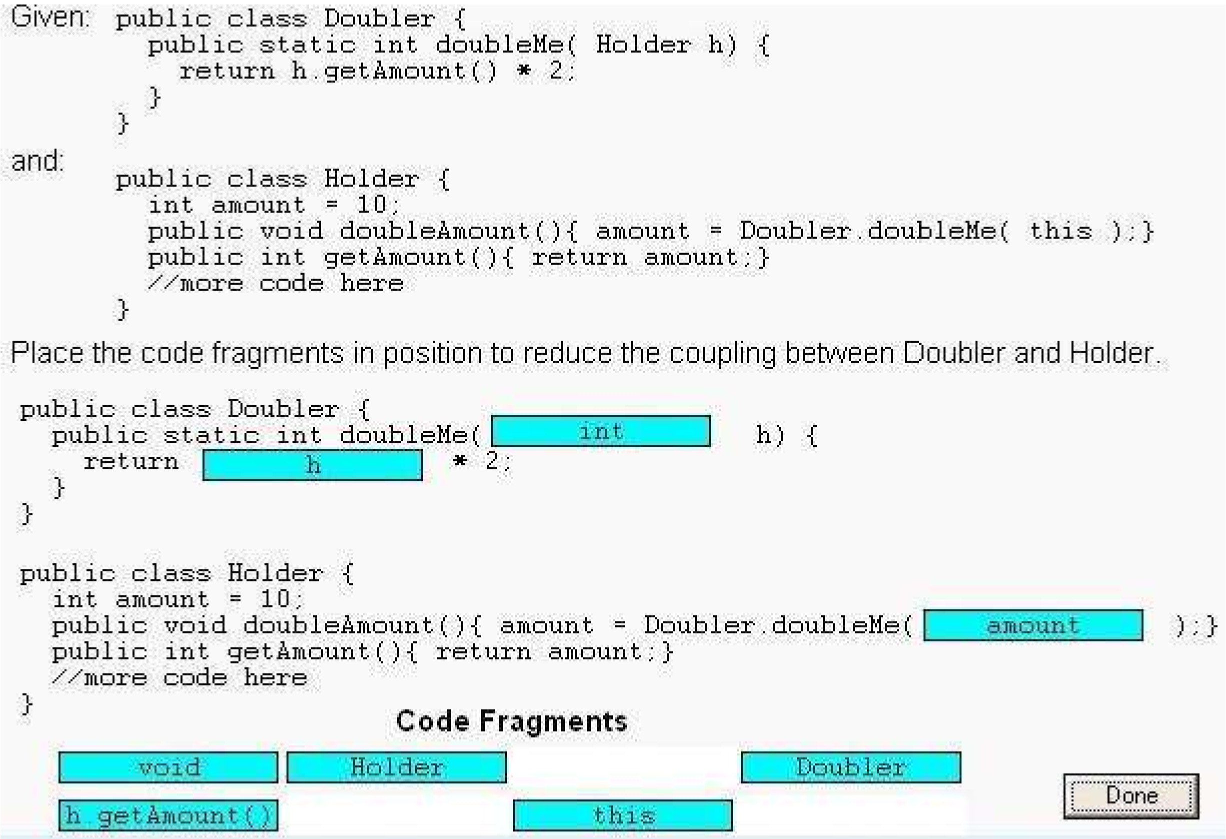
Given:
```
public class Doubler {
  public static int doubleMe( Holder h) {
    return h.getAmount() * 2;
  }
}
```

and:
```
public class Holder {
  int amount = 10;
  public void doubleAmount(){ amount = Doubler.doubleMe( this );}
  public int getAmount(){ return amount;}
  //more code here
}
```

Place the code fragments in position to reduce the coupling between Doubler and Holder.

```
public class Doubler {
  public static int doubleMe( Place here   h) {
    return  Place here   * 2;
  }
}

public class Holder {
  int amount = 10;
  public void doubleAmount(){ amount = Doubler.doubleMe( Place here   );}
  public int getAmount(){ return amount;}
  //more code here
}
```

Correct Answer:



Given:
```
public class Doubler {
  public static int doubleMe( Holder h) {
    return h.getAmount() * 2;
  }
}
```

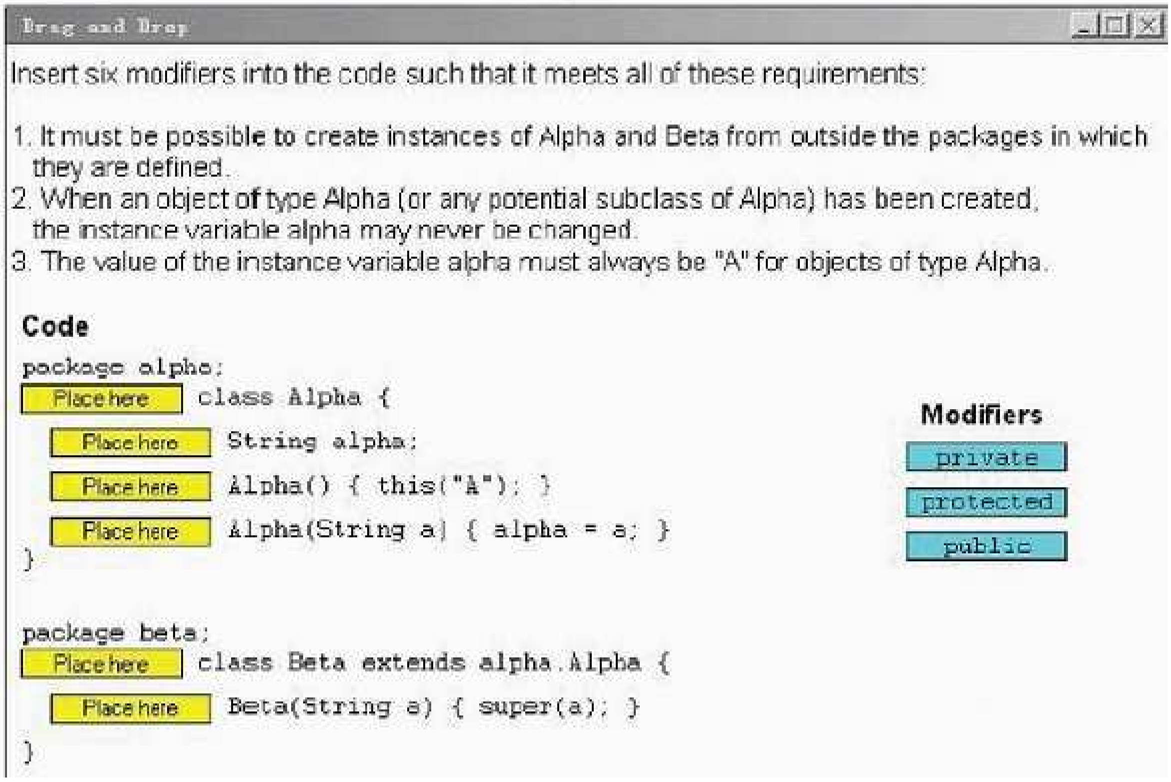
and:
```
public class Holder {
  int amount = 10;
  public void doubleAmount(){ amount = Doubler.doubleMe( this );}
  public int getAmount(){ return amount;}
  //more code here
}
```

Place the code fragments in position to reduce the coupling between Doubler and Holder.

```
public class Doubler {
  public static int doubleMe(  int   h) {
    return   h   * 2;
  }
}

public class Holder {
  int amount = 10;
  public void doubleAmount(){ amount = Doubler.doubleMe(  amount   );}
  public int getAmount(){ return amount;}
  //more code here
}
```

QUESTION 47

Select and Place:



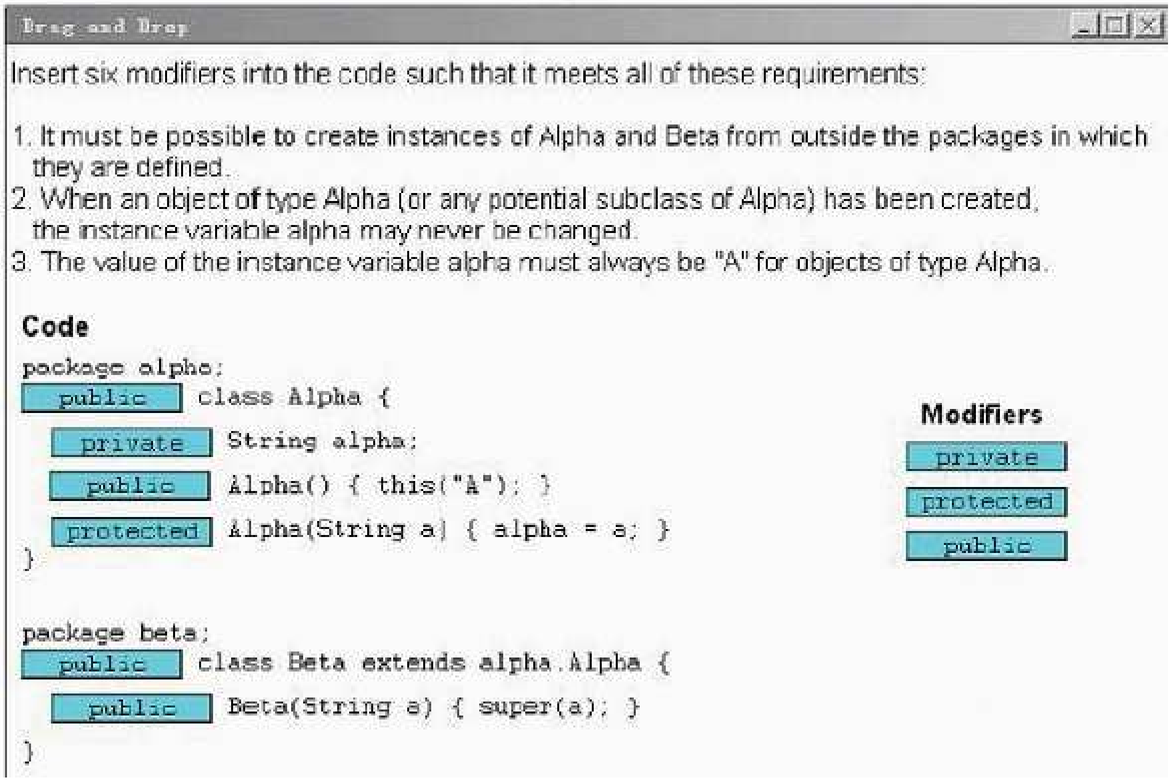
Insert six modifiers into the code such that it meets all of these requirements:

1. It must be possible to create instances of Alpha and Beta from outside the packages in which they are defined.
2. When an object of type Alpha (or any potential subclass of Alpha) has been created, the instance variable alpha may never be changed.
3. The value of the instance variable alpha must always be "A" for objects of type Alpha.

Code

```
package alpha;
Place here class Alpha {
    Place here String alpha;
    Place here Alpha() { this("A"); }
    Place here Alpha(String a) { alpha = a; }
}

package beta;
Place here class Beta extends alpha.Alpha {
    Place here Beta(String a) { super(a); }
}
```

Correct Answer:



Insert six modifiers into the code such that it meets all of these requirements:

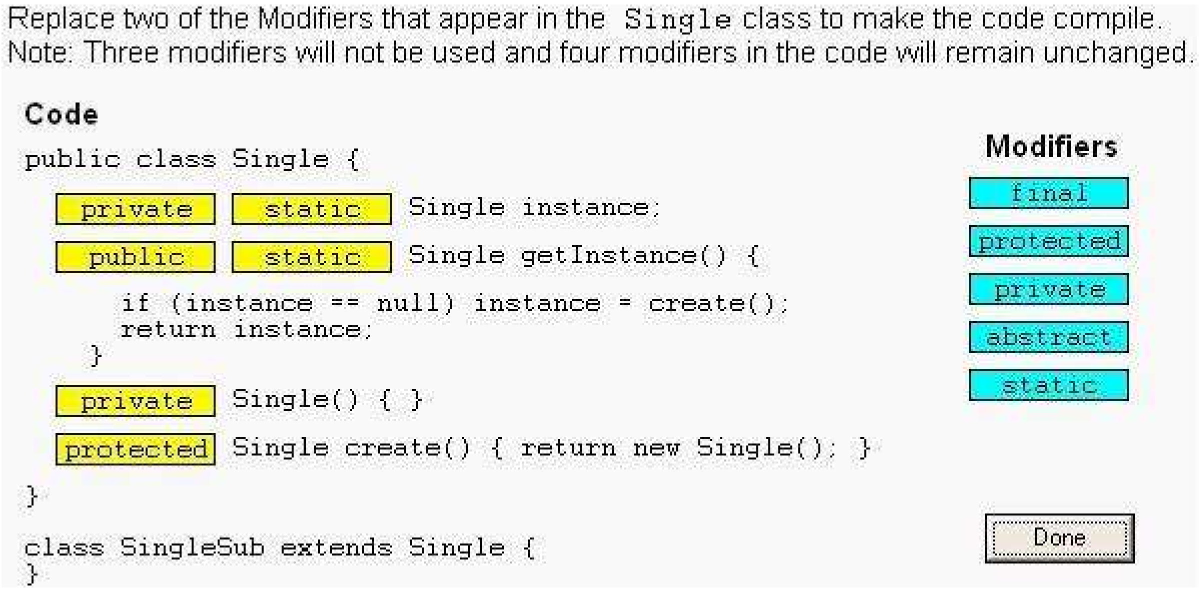
1. It must be possible to create instances of Alpha and Beta from outside the packages in which they are defined.
2. When an object of type Alpha (or any potential subclass of Alpha) has been created, the instance variable alpha may never be changed.
3. The value of the instance variable alpha must always be "A" for objects of type Alpha.

Code

```
package alpha;
public class Alpha {
    private String alpha;
    public Alpha() { this("A"); }
    protected Alpha(String a) { alpha = a; }
}

package beta;
public class Beta extends alpha.Alpha {
    public Beta(String a) { super(a); }
}
```

QUESTION 48

Select and Place:

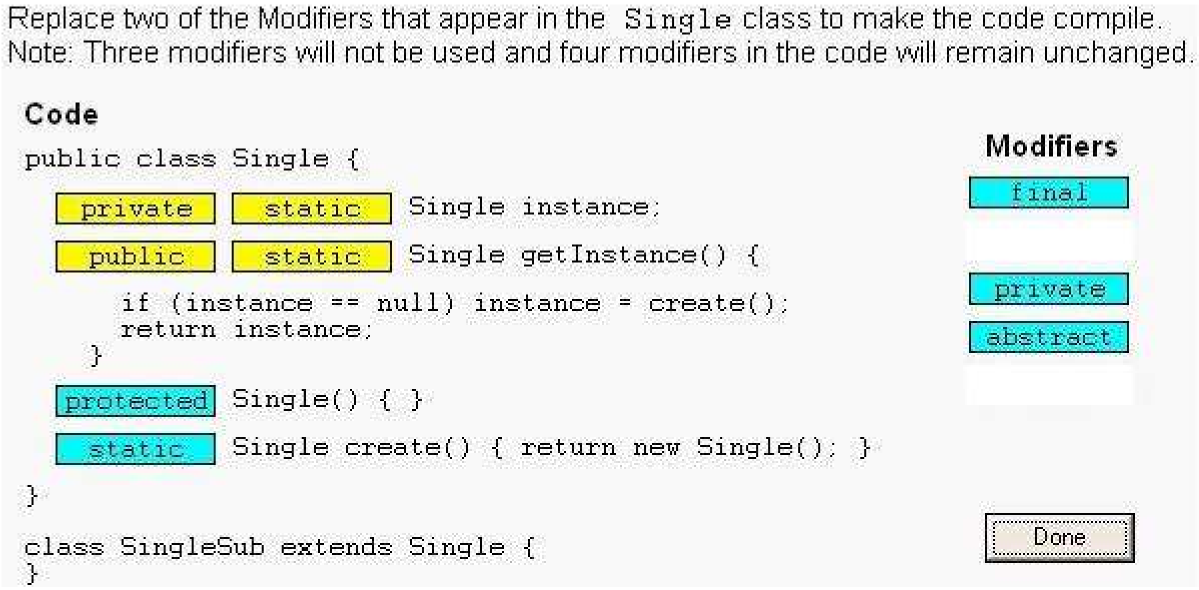


Replace two of the Modifiers that appear in the `Single` class to make the code compile.
Note: Three modifiers will not be used and four modifiers in the code will remain unchanged.

Code

```
public class Single {
   private  static  Single instance;
   public   static  Single getInstance() {
       if (instance == null) instance = create();
       return instance;
   }
   private  Single() { }
   protected Single create() { return new Single(); }
}
class SingleSub extends Single {
}
```

Correct Answer:



Replace two of the Modifiers that appear in the `Single` class to make the code compile.
Note: Three modifiers will not be used and four modifiers in the code will remain unchanged.

Code

```
public class Single {
   private  static  Single instance;
   public   static  Single getInstance() {
       if (instance == null) instance = create();
       return instance;
   }
   protected Single() { }
   static   Single create() { return new Single(); }
}
class SingleSub extends Single {
}
```