



## Exam A

### QUESTION 1

Given:

```
import java.util.*;

public class Quest {
    public static void main(String[] args) {
        String[] colors = {"blue", "red", "green", "yellow", "orange"};
        Arrays.sort(colors);
        int s2 = Arrays.binarySearch(colors, "orange");
        int s3 = Arrays.binarySearch(colors, "violet");
        System.out.println(s2 + " " + s3);
    }
}
```

What is the result?

- A. 2 -1
- B. 2 -4
- C. 2 -5
- D. 3 -1
- E. 3 -4
- F. 3 -5
- G. Compilation fails.
- H. An exception is thrown at runtime.

**Correct Answer: C**

### QUESTION 2

Given:

```
class Animal {
    public String noise() {
        return "peep";
    }
}

class Dog extends Animal {
    public String noise() {
        return "bark";
    }
}

class Cat extends Animal {
    public String noise() {
        return "meow";
    }
}

30. Animal animal = new Dog();
31. Cat cat = (Cat)animal;
32. System.out.println(cat.noise());
```

What is the result?

- A. peep
- B. bark
- C. meow
- D. Compilation fails.
- E. An exception is thrown at runtime.

**Correct Answer: E**

### QUESTION 3

Given:

```
class TestA {  
    public void start() { System.out.println("TestA"); }  
}  
  
public class TestB extends TestA {  
    public void start() { System.out.println("TestB"); }  
    public static void main(String[] args) {  
        ((TestA)new TestB()).start();  
    }  
}
```

What is the result?

- A. TestA
- B. TestB
- C. Compilation fails.
- D. An exception is thrown at runtime.

**Correct Answer: B**

### QUESTION 4

Given:

```
class Alpha {  
    public void foo() { System.out.print("Afoo "); }  
}  
public class Beta extends Alpha {  
    public void foo() { System.out.print("Bfoo "); }  
    public static void main(String[] args) {  
        Alpha a = new Beta();  
        Beta b = (Beta)a;  
        a.foo();  
        b.foo();  
    }  
}
```

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.

**Correct Answer: D**

### QUESTION 5

Given classes defined in two different files:

```
package packageA;  
public class Message {  
    String getText() {  
        return "text";  
    }  
}
```

And:

```
package packageB;
public class XMLMessage extends packageA.Message {
    String getText() {
        return "<msg>text</msg>";
    }

    public static void main(String[] args) {
        System.out.println(new XMLMessage().getText());
    }
}
```

What is the result of executing XMLMessage.main?

- A. text
- B. Compilation fails.
- C. <msg>text</msg>
- D. An exception is thrown at runtime.

**Correct Answer: C**

#### QUESTION 6

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() + ", " + 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.

**Correct Answer: D**

#### QUESTION 7

Given:

```
21. class Money {
22.     private String country = "Canada";
23.     public String getC() { return country; }
24. }
25. class Yen extends Money {
26.     public String getC() { return super.country; }
27. }
28. public class Euro extends Money {
29.     public String getC(int x) { return super.getC(); }
30.     public static void main(String[] args) {
31.         System.out.print(new Yen().getC() + " " + new Euro().getC());
32.     }
33. }
```

What is the result?

- A. Canada
- B. null Canada
- C. Canada null
- D. Canada Canada
- E. Compilation fails due to an error on line 26.
- F. Compilation fails due to an error on line 29.

**Correct Answer: E**

#### QUESTION 8

Given:

```
class A {
    String name = "A";

    String getName() {
        return name;
    }

    String greeting() {
        return "class A";
    }
}

class B extends A {
    String name = "B";

    String greeting() {
        return "class B";
    }
}

public class Client {
    public static void main(String[] args) {
        A a = new A();
        A b = new B();
        System.out.println(a.greeting() + " has name " + a.getName());
        System.out.println(b.greeting() + " has name " + b.getName());
    }
}
```

**Select and Place:**

Place the names "A" and "B" in the following output.

class	<input type="text" value="Place here"/>	has name	<input type="text" value="Place here"/>	<input type="text" value="A"/>	<input type="text" value="B"/>
class	<input type="text" value="Place here"/>	has name	<input type="text" value="Place here"/>	<input type="button" value="Done"/>	

**Correct Answer:**

Place the names "A" and "B" in the following output.

class	<input type="text" value="A"/>	has name	<input type="text" value="A"/>	<input type="text" value="A"/>	<input type="text" value="B"/>
class	<input type="text" value="B"/>	has name	<input type="text" value="A"/>	<input type="button" value="Done"/>	

#### QUESTION 9

Given:

```
class Foo {  
    public int a = 3;  
    public void addFive() { a += 5; System.out.print("f "); }  
}  
  
class Bar extends Foo {  
    public int a = 8;  
    public void addFive() { this.a += 5; System.out.print("b "); }  
}
```

Invoked with:

```
Foo f = new Bar();  
f.addFive();  
System.out.println(f.a);
```

What is the result?

- A. b 3
- B. b 8
- C. b 13
- D. f 3
- E. f 8
- F. f 13
- G. Compilation fails.
- H. An exception is thrown at runtime.

**Correct Answer: A**

#### QUESTION 10

Given:

```
class Thingy { Meter m = new Meter(); }  
  
class Component { void go() { System.out.print("c"); } }  
  
class Meter extends Component { void go() { System.out.print("m"); } }  
  
class DeluxeThingy extends Thingy {  
    public static void main(String[] args) {  
        DeluxeThingy dt = new DeluxeThingy();  
        dt.m.go();  
        Thingy t = new DeluxeThingy();  
        t.m.go();  
    }  
}
```

Which two are true? (Choose two.)

- A. The output is mm.
- B. The output is mc.
- C. Component is-a Meter.
- D. Component has-a Meter.
- E. DeluxeThingy is-a Component.
- F. DeluxeThingy has-a Component.

**Correct Answer: AF**

#### QUESTION 11

Given:

```
public class Base {
    public static final String FOO = "foo";

    public static void main(String[] args) {
        Base b = new Base();
        Sub s = new Sub();
        System.out.print(Base.FOO);
        System.out.print(Sub.FOO);
        System.out.print(b.FOO);
        System.out.print(s.FOO);
        System.out.print(((Base) s).FOO);
    }
}

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. foofoofoobarfoo

**Correct Answer: D**

## QUESTION 12

What is the output of class TestCafe4Java?

```
class SuperCafe4Java {
    public Object get () {
        return ("SuperCafe4Java");
    }
}

class SubCafe4Java extends SuperCafe4Java {
    public String get () {
        return ("SubCafe4Java");
    }
}

class TestCafe4Java {
    public static void main (String[] arguments) {
        SuperCafe4Java superFoo;
        SubCafe4Java subFoo;

        superFoo = new SubCafe4Java();
        System.out.println (superFoo.get());

        subFoo = new SubCafe4Java();
        superFoo = subFoo;
        System.out.println (superFoo.get());
    }
}
```

- A. SubCafe4Java  
SubCafe4Java
- B. SuperCafe4Java

- SuperCafe4Java
- C. SubCafe4Java  
SuperCafe4Java
- D. SuperCafe4Java  
SubCafe4Java
- E. Compilation Error
- F. An exception is throw at runtime

**Correct Answer: A**

### QUESTION 13

What is the output of class TestCafe4Java, if the class SubCafe4Java is compiled as follows (using JDK 1.5)?

```
javac -source 1.4 SubCafe4Java.java

class SuperCafe4Java {
    public Object get () {
        return ("SuperCafe4Java");
    }
}

class SubCafe4Java extends SuperCafe4Java {
    public String get () {
        return ("SubCafe4Java");
    }
}

class TestCafe4Java {
    public static void main (String[] arguments) {
        SuperCafe4Java superFoo;
        SubCafe4Java subFoo;

        superFoo = new SubCafe4Java();
        System.out.println (superFoo.get());

        subFoo = new SubCafe4Java();
        superFoo = subFoo;
        System.out.println (superFoo.get());
    }
}
```

- A. SubCafe4Java  
SubCafe4Java
- B. SuperCafe4Java  
SuperCafe4Java
- C. SubCafe4Java  
SuperCafe4Java
- D. SuperCafe4Java  
SubCafe4Java
- E. Compilation Error
- F. Runtime Exception

**Correct Answer: E**

### QUESTION 14

What is the output of class TestCafe4Java?

```
class SuperCafe4Java {
    public Object get () {
        return ("SuperCafe4Java");
    }
}
```



```

class SubCafe4Java extends SuperCafe4Java {
    public String get () {
        return ("SubCafe4Java");
    }
    public Object get () {
        return ("SubCafe4JavaObject");
    }
}

class TestCafe4Java {
    public static void main (String[] arguments) {
        SuperCafe4Java superFoo;
        SubCafe4Java subFoo;

        superFoo = new SubCafe4Java();
        System.out.println (superFoo.get());

        subFoo = new SubCafe4Java();
        superFoo = subFoo;
        System.out.println (superFoo.get());
    }
}

```

- A. SubCafe4Java  
SubCafe4Java
- B. SuperCafe4Java  
SuperCafe4Java
- C. SubCafe4Java  
SuperCafe4Java
- D. SuperCafe4Java  
SubCafe4Java
- E. Compilation Error
- F. Runtime Exception

**Correct Answer: E**

#### QUESTION 15

What is the output of class TestCafe4Java?

```

class SuperCafe4Java {
    public Object get (Object o) {
        return ("SuperCafe4Java");
    }
}

class SubCafe4Java extends SuperCafe4Java {
    public Object get (String o) {
        return ("SubCafe4Java");
    }
}

class TestCafe4Java {
    public static void main (String[] arguments) {
        SuperCafe4Java superFoo;
        SubCafe4Java subFoo;

        superFoo = new SubCafe4Java();
        System.out.println (superFoo.get("super"));

        subFoo = new SubCafe4Java();
        superFoo = subFoo;
        System.out.println (superFoo.get("super"));
    }
}

```

- A. SubCafe4Java  
SubCafe4Java
- B. SuperCafe4Java  
SuperCafe4Java
- C. SubCafe4Java  
SuperCafe4Java
- D. SuperCafe4Java  
SubCafe4Java
- E. Compilation Error
- F. Runtime Exception

**Correct Answer: B**

#### QUESTION 16

Given:

```

08. abstract public class Employee {
09.     protected abstract double getSalesAmount();
10.
11.     public double getCommision() {
12.         return getSalesAmount() * 0.15;
13.     }
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; }

**Correct Answer: BD**

#### QUESTION 17

Given:

```

public class SimpleCalc {
    public int value;
    public void calculate() { value += 7; }
}

```

and:

```

public class MultiCalc extends SimpleCalc {
    public void calculate() { value -= 3; }
    public void calculate(int multiplier) {
        calculate();
        super.calculate();
        value *= multiplier;
    }
    public static void main(String[] args) {
        MultiCalc calculator = new MultiCalc();
        calculator.calculate(2);
        System.out.println("Value is: " + calculator.value);
    }
}

```

What is the result?

- A. Value is: 8
- B. Compilation fails.
- C. Value is: 12
- D. Value is: -12
- E. The code runs with no output.
- F. An exception is thrown at runtime.

**Correct Answer: A**

#### QUESTION 18

Given:

```
10. public class SuperCalc {  
11.     protected static int multiply(int a, int b) { return a * b;}  
12. }
```

and:

```
20. public class SubCalc extends SuperCalc{  
21.     public static int multiply(int a, int b) {  
22.         int c = super.multiply(a, b);  
23.         return c;  
24.     }  
25. }
```

and:

```
30. SubCalc sc = new SubCalc ();  
31. System.out.println(sc.multiply(3,4));  
32. System.out.println(SubCalc.multiply(2,2));
```

What is the result?

- A. 12
- B. The code runs with no output.
- C. An exception is thrown at runtime.
- D. Compilation fails because of an error in line 21.
- E. Compilation fails because of an error in line 22.
- F. Compilation fails because of an error in line 31.

**Correct Answer: E**

#### QUESTION 19

Given:

```
abstract class A {  
    abstract void a1();  
  
    void a2() {  
    }  
}
```

```
class B extends A {  
    void a1() {  
    }  
  
    void a2() {  
    }  
}
```

```
class C extends B {  
    void c1() {
```

```
    }  
}
```

And:

```
A x = new B();  
C y = new C();  
A z = new C();
```

What are four valid examples of polymorphic method calls? (Choose four.)

- A. x.a2();
- B. z.a2();
- C. z.c1();
- D. z.a1();
- E. y.c1();
- F. x.a1();

**Correct Answer:** ABDF

#### QUESTION 20

Given:

```
09. class One {  
10.     void foo() { }  
11. }  
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 \*/ }

**Correct Answer:** BCE

#### QUESTION 21

Given:

```
01. public class Blip {  
02.     protected int blipvert(int x) { return 0; }  
03. }  
04. class Vert extends Blip {  
05.     // insert code here  
06. }
```

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; }

**Correct Answer:** ACEFG

#### QUESTION 22

Given:

```
class One {
    public One foo() {
        return this;
    }
}

class Two extends One {
    public One foo() {
        return this;
    }
}

class Three extends Two {
    // insert method here
}
```

Which two methods, inserted individually, correctly complete the Three class? (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; }`

**Correct Answer:** CD

#### QUESTION 23

Given:

```
01. public class Hi {
02.     void m1() { }
03.     protected void() m2 { }
04. }
05.
06. class Lois extends Hi {
07.     // insert code here
08. }
```

Which four code fragments, inserted independently at line 7, will compile? (Choose four.)

- A. `public void m1() { }`
- B. `protected void m1() { }`
- C. `private void m1() { }`
- D. `void m2() { }`
- E. `public void m2() { }`
- F. `protected void m2() { }`
- G. `private void m2() { }`

**Correct Answer:** ABEF

#### QUESTION 24

Given:

```
public class ItemTest {
    private final int id;
```

```

public ItemTest(int id) {
    this.id = id;
}

public void updateId(int newId) {
    id = newId;
}

public static void main(String[] args) {
    ItemTest fa = new ItemTest(42);
    fa.updateId(69);
    System.out.println(fa.id);
}
}

```

What is the result?

- A. Compilation fails.
- B. An exception is thrown at runtime.
- C. The attribute id in the ItemTest object remains unchanged.
- D. The attribute id in the ItemTest object is modified to the new value.
- E. A new ItemTest object is created with the preferred value in the id attribute.

**Correct Answer: A**

#### QUESTION 25

Given:

```

public class Pass {
    public static void main(String [] args) {
        int x = 5;
        Pass p = new Pass();
        p.doStuff(x);
        System.out.print(" main x = " + x);
    }

    void doStuff(int x) {
        System.out.print(" doStuff x = " + x++);
    }
}

```

What is the result?

- A. Compilation fails.
- B. An exception is thrown at runtime.
- C. doStuff x = 6 main x = 6
- D. doStuff x = 5 main x = 5
- E. doStuff x = 5 main x = 6
- F. doStuff x = 6 main x = 5

**Correct Answer: D**

#### QUESTION 26

Given:

```

public class Pass2 {
    public void main(String [] args) {
        int x = 6;
        Pass2 p = new Pass2();
        p.doStuff(x);
        System.out.print(" main x = " + x);
    }
}

```

```

        void doStuff(int x) {
            System.out.print(" doStuff x = " + x++);
        }
    }

```

And the command-line invocations:

```

javac Pass2.java
java Pass2 5

```

What is the result?

- A. Compilation fails.
- B. An exception is thrown at runtime.
- C. doStuff x = 6 main x = 6
- D. doStuff x = 6 main x = 7
- E. doStuff x = 7 main x = 6
- F. doStuff x = 7 main x = 7

**Correct Answer: B**

#### QUESTION 27

View the followin code:

```

class Foo {
    private int x;
    public Foo( int x ){ this.x = x;}
    public void setX( int x ) { this.x = x; }
    public int getX(){ return x;}
}

public class Gamma {

    static Foo fooBar(Foo foo) {
        foo = new Foo(100);
        return foo;
    }

    public static void main(String[] args) {
        Foo foo = new Foo( 300 );
        System.out.println( foo.getX() + "-");

        Foo fooFoo = fooBar(foo);
        System.out.println(foo.getX() + "-");
        System.out.println(fooFoo.getX() + "-");

        foo = fooBar( fooFoo);
        System.out.println( foo.getX() + "-");
        System.out.println(fooFoo.getX());
    }
}

```

What is the output of the program shown in the exhibit?

- A. 300-100-100-100-100
- B. 300-300-100-100-100
- C. 300-300-300-100-100
- D. 300-300-300-300-100

**Correct Answer: B**

#### QUESTION 28

Given:

```
public class ClassA {
    public void methodA() {
        ClassB classB = new ClassB();
        classB.getValue();
    }
}

class ClassB {
    public ClassC classC;

    public String getValue() {
        return classC.getValue();
    }
}

class ClassC {
    public String value;

    public String getValue() {
        value = "ClassB";
        return value;
    }
}
```

and:

```
ClassA a = new ClassA();
a.methodA();
```

What is the result?

- A. Compilation fails.
- B. ClassC is displayed.
- C. The code runs with no output.
- D. An exception is thrown at runtime.

**Correct Answer: D**

## QUESTION 29

Given:

```
public class Batman {
    int squares = 81;
    public static void main(String[] args) {
        new Batman().go();
    }
    void go() {
        incr(++squares);
        System.out.println(squares);
    }
    void incr(int squares) { squares += 10; }
}
```

What is the result?

- A. 81
- B. 82
- C. 91
- D. 92
- E. Compilation fails.
- F. An exception is thrown at runtime.



**Correct Answer: B**

### QUESTION 30

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 31

Which three code fragments, added individually at line 29, produce the output 100? (Choose three.)

```
10. class Inner {
11.     private int x;
12.     public void setX( int x ){ this.x = x; }
13.     public int getX(){ return x;}
14. }
15.
16. class Outer {
17.     private Inner y;
18.     public void setY( Inner y ){ this.y = y; }
19.     public Inner getY() { return y; }
20. }
21.
22. public class Gamma {
23.     public static void main(String[] args) {
24.         Outer o = new Outer();
25.         Inner i = new Inner();
26.         int n = 10;
27.         i.setX(n);
28.         o.setY(i);
29.         // insert code here
30.         System.out.println(o.getY().getX());
31.     }
32. }
```

- 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 );

```

**Correct Answer: BCF**

### QUESTION 32

Given:

```

04. class Payload {
05.     private int weight;
06.     public Payload (int w) { weight = w; }
07.     public void setWeight(int w) { weight = w; }
08.     public String toString() { return Integer.toString(weight); }
09. }
10.
11. public class TestPayload {
12.     static void changePayload(Payload p) { /* insert code */ }
13.     public static void main(String[] args) {
14.         Payload p = new Payload(200);
15.         p.setWeight(1024);
16.         changePayload(p);
17.         System.out.println("p is " + p);
18.     }
19. }

```

Which code fragment, inserted at the end of line 12, produces the output p is 420?

```

A. p.setWeight(420);
B. p.changePayload(420);
C. p = new Payload(420);
D. Payload.setWeight(420);
E. p = Payload.setWeight(420);

```

**Correct Answer: A**

### QUESTION 33

Given classes defined in two different files:

```

package util;
public class BitUtils {
    private static void process(byte[] b) {}
}

01. package app;
02. public class SomeApp {
03.     public static void main(String[] args) {
04.         byte[] bytes = new byte[256];
05.         // insert code here
06.     }
07. }

```

What is required at line 5 in class SomeApp to use the process method of BitUtils?

```

A. process(bytes);
B. BitUtils.process(bytes);
C. app.BitUtils.process(bytes);

```

- D. `util.BitUtils.process(bytes);`
- E. `import util.BitUtils.*;`  
`process(bytes);`
- F. `SomeApp` cannot use the `process` method in `BitUtils`.

**Correct Answer: F**

#### QUESTION 34

Click the Exhibit button

```
1. public class A {
2.     public void method1(){
3.         B b = new B();
4.         b.method2();
5.         // more code here
6.     }
7. }
```

```
1. public class B{
2.     public void method2() {
3.         C c = new C();
4.         c.method3();
5.         // more code here
6.     }
7. }
```

```
1. public class C {
2.     public void method3(){
3.         // more code here
4.     }
5. }
```

Given:

```
25. try {
26.     A a = new A();
27.     a.method1();
28. } catch (Exception e) {
29.     System.out.print("an error occurred");
30. }
```

Which two statements are true if a `NullPointerException` is thrown on line 3 of class C? (Choose two.)

- A. The application will crash.
- B. The code on line 29 will be executed.
- C. The code on line 5 of class A will execute.
- D. The code on line 5 of class B will execute.
- E. The exception will be propagated back to line 27.

**Correct Answer: BE**

#### QUESTION 35

Given:

```
1. public class A {
2.     public void doit() {
3.     }
4.
5.     public String doit() {
6.         return "a";
7.     }
```

```

8.
9.     public double doit(int x) {
10.         return 1.0;
11.     }
12. }

```

What is the result?

- A. An exception is thrown at runtime.
- B. Compilation fails because of an error in line 9.
- C. Compilation fails because of an error in line 5.
- D. Compilation succeeds and no runtime errors with class A occur.

**Correct Answer: C**

### QUESTION 36

Given:

```

public class Yikes {

    public static void go(Long n) {
        System.out.print("Long ");
    }

    public static void go(Short n) {
        System.out.print("Short ");
    }

    public static void go(int n) {
        System.out.print("int ");
    }

    public static void main(String[] args) {
        short y = 6;
        long z = 7;
        go(y);
        go(z);
    }
}

```

What is the result?

- A. int Long
- B. Short Long
- C. Compilation fails.
- D. An exception is thrown at runtime.

**Correct Answer: A**

### QUESTION 37

Given

```

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. }

```

and:

```
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.

**Correct Answer: A**

### QUESTION 38

Given:

```
public class Barn {
    public static void main(String[] args) {
        new Barn().go("hi", 1);
        new Barn().go("hi", "world", 2);
    }

    public void go(String... y, int x) {
        System.out.print(y[y.length - 1] + " ");
    }
}
```

What is the result?

- A. hi hi
- B. hi world
- C. world world
- D. Compilation fails.
- E. An exception is thrown at runtime.

**Correct Answer: D**

### QUESTION 39

Given:

```
1. public class Venus {
2.     public static void main(String[] args) {
3.         int[] x = { 1, 2, 3 };
4.         int y[] = { 4, 5, 6 };
5.         new Venus().go(x, y);
6.     }
7.
8.     void go(int[]... z) {
9.         for (int[] a : z)
10.            System.out.print(a[0]);
11.     }
12. }
```

What is the result?

- A. 1
- B. 12
- C. 14
- D. 123

- E. Compilation fails.
- F. An exception is thrown at runtime.

**Correct Answer: C**

#### QUESTION 40

Add methods to the Beta class to make it compile correctly.

**Select and Place:**

<pre>class Alpha {     public void bar( int... x ) { }     public void bar( int x ) { } }  public class Beta extends Alpha {</pre> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin: 5px; text-align: center;">Place here</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin: 5px; text-align: center;">Place here</div> <div style="border: 1px solid black; background-color: yellow; padding: 5px; margin: 5px; text-align: center;">Place here</div> <pre>}</pre>	<p style="text-align: center;"><b>Methods</b></p> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">private void bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public void bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public int bar( String x ) { return 1; }</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public Alpha bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public void bar( int x, int y ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public int bar( int x ) { return x; }</div>
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**Correct Answer:**

<pre>class Alpha {     public void bar( int... x ) { }     public void bar( int x ) { } }  public class Beta extends Alpha {</pre> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public void bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public int bar( String x ) { return 1; }</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public void bar( int x, int y ) {}</div> <pre>}</pre>	<p style="text-align: center;"><b>Methods</b></p> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">private void bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public void bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public Alpha bar( int x ) {}</div> <div style="border: 1px solid black; background-color: cyan; padding: 5px; margin: 5px;">public int bar( int x ) { return x; }</div>
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