# Module 1-JAVA 基础

## 一、选择题：

Question 1
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.

Answer: AD

Question 2
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. An exceptional is thrown at runtime.

Answer: D

Question 3
Given:
42. public class ClassA {
43. public int getValue() {
44.int value=0;
45. boolean setting = true;
46. String title="Hello";
47. if (value || (setting && title == "Hello")) { return 1; }
48. if (value == 1 & title.equals("Hello")) { return 2; }
49. }
50. }
And:
70. ClassA a = new ClassA();
71. a.getValue();
What is the result?
A. 1
B. 2
C. Compilation fails.
D. The code runs with no output.
E. An exception is thrown at runtime.

Answer: C

Question 4
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.

Answer: A

Question 5
Given:
11. public static void main(String[] args) {
12. Integer i = new Integer(1) + new Integer(2);
13. switch(i) {
14. case 3: System.out.println("three"); break;
15. default: System.out.println("other"); break;
16. }
17. }
What is the result?
A. three
B. other
C. An exception is thrown at runtime.
D. Compilation fails because of an error on line 12.
E. Compilation fails because of an error on line 13.
F. Compilation fails because of an error on line 15.

Answer: A

Question 6
Given:
11. public static void main(String[] args) {
12. String str = "null";
13. if (str == null) {
14. System.out.println("null");
15. } else (str.length() == 0) {
16. System.out.println("zero");
17. } else {
18. System.out.println("some");
19. }
20. }
‘What is the result?
A. null
B. zero
C. some
D. Compilation fails.
E. An exception is thrown at runtime.

Answer: D

Question 7
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. 6,5
D. 6,6

Answer: B

Question 8
Given:
25.int x=12;
26. while (x < 10) {
27. x--;
28. }
29. System.out.print(x);
What is the result?
A. 0
B. 10
C. 12
D. Line 29 will never be reached.

Answer: C

Question 9
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

Answer: D

Question 10
Given:
11. public static void main(String[] args) {
12. for (int i=0;i<= 10;i++){
13. if( i>6) break;
14. }

15. System.out.println(i);
16. }
What is the result?
A. 6
B. 7
C. 10
D. 11
E. Compilation fails.
F. An exception is thrown at runtime.

Answer: E

Question 11
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.

Answer: B

Question 12
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; }

Answer: AB

Question 13
Given:
11. public static void main(String[] args) {
12. Object obj =new int[] { 1,2,3 };

13. int[] someArray = (int[])obj;
14. for (int i: someArray) System.out.print(i +" ")
15. }
‘What is the result?

A. 1 2 3
B. Compilation fails because of an error in line 12.
C. Compilation fails because of an error in line 13.
D. Compilation fails because of an error in line 14.
E. A ClassCastException is thrown at runtime.

Answer: A

Question 14
Given:
11. String[] elements = { "for", "tea", "too" };
12. String first = (elements.length > 0)? elements[0] : null;
What is the result?
A. Compilation fails.
B. An exception is thrown at runtime.
C. The variable first is set to null.
D. The variable first is set to elements[0].

Answer: D

Question 15
Given:
10. public class Bar {
11.static void foo(int...x) {
12. // insert code here
13. }
14. }
Which two code fragments, inserted independently at line 12, will allow the class to compile? (Choose two.)
A. foreach(x) System.out.println(z);
B. for(int z : x) System.out.println(z);
C. while( x.hasNext()) System.out.println( x.next());
D. for( int i=0; i< x.length; i++ ) System.out.println(x[i]);

Answer: BD
Question 16
A programmer needs to create a logging method that can accept an arbitrary number of arguments. For example, it may be called in these ways:
logIt("log message 1 ");
logIt("log message2”,”log message3");

logIt("log message4", "log message5", "log message6");

Which declaration satisfies this requirement?
A. public void logIt(String * msgs)
B. public void logIt(String [] msgs)
C. public void logIt(String... msgs)
D. public void logIt(String msg1, String msg2, String msg3)

Answer: C

Question 17
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.

Answer: A

Question 18
Given a file GrizzlyBear.java:
1. package animals.mammals;
2.
3. public class GrizzlyBear extends Bear {
4. void hunt() {
5. Salmon s = findSalmon();
6. s.consume();
7. }
8. }
and another file, Salmon.java:
1. package animals.fish;
2.
3. public class Salmon extends Fish {

4. void consume() { /* do stuff */ }
5. }
Assume both classes are defined in the correct directories for theft packages, and that the Mammal class correctly defines the findSalmon() method. Which two changes allow this code to compile correctly? (Choose two.)
A. add public to the start of line 4 in Salmon.java
B. add public to the start of line 4 in GrizzlyBear.java
C. add import animals.mammals.*; at line 2 in Salmon.java
D. add import animals.fish.*; at line 2 in GrizzlyBear.java
E. add import animals.fish.Salmon.*; at line 2 in GrizzlyBear.java
F. add import animals.mammals.GrizzlyBear.*;at line 2 in Salmon.java

Answer: AD

Question 19
Given:
10. package com.sun.scjp;
11. public class Geodetics {
12. public static final double DIAMETER = 12756.32; // kilometers
13. }
Which two correctly access the DIAMETER member of the Geodetics class? (Choose two.)
A. import com.sun.scjp.Geodetics;
public class TerraCarta {
public double halfway()
{ return Geodetics.DIAMETER/2.0; } }
B. import static com.sun.scjp.Geodetics;
public class TerraCarta {
public double halfway() { return DIAMETER/2.0; } }
C. import static com.sun.scjp.Geodetics. *;
public class TerraCarta {
public double halfway() { return DIAMETER/2.0; } }
D. package com.sun.scjp;
public class TerraCarta {
public double halfway() { return DIAMETER/2.0; } }

Answer: AC

Question 20
Given classes defined in two different files:
1. package util;
2. public class BitUtils {
3. private static void process(byte[] b) { }
4. }
1. package app;

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

Answer: F

Question 21
Given a class Repetition:
```
1. package utils;
2.
3. public class Repetition {
4. public static String twice(String s) { return s + s; }
5. }
```
and given another class Demo:
```
1. // insert code here
2.
3. public class Demo {
4. public static void main(String[] args) {
5. System.out.println(twice("pizza"));
6. }
7. }
```
Which code should be inserted at line 1 of Demo.java to compile and run Demo to print “pizzapizza”?
A. import utils.*;
B. static import utils.*;
C. import utils.Repetition.*;
D. static import utils.Repetition. *;
E. import utils.Repetition.twice();
F. import static utils.Repetition.twice;
G. static import utils.Repetition.twice;

Answer: F
Question 22
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

Answer: C

Question 23
Given:
11. rbo = new ReallyBigObject();
12. // more code here
13. rbo = null;
14. /* insert code here */
Which statement should be placed at line 14 to suggest that the virtual machine expend effort toward recycling the memory used by the object rbo?
A. System.gc();
B. Runtime.gc();
C. System.freeMemory();
D. Runtime.getRuntime().growHeap();
E. Runtime.getRuntime().freeMemory();

Answer: A

Question 24
Given:
11. class Snoochy {
12. Boochybooch;
13. public Snoochy() { booch = new Boochy(this); }
14. }
15.
16. class Boochy {
17. Snoochy snooch;
18. public Boochy(Snoochy s) { snooch = s; }
19. }
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.

Answer: E

Question 25
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

Answer: D

Question 26
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.

Answer: D

Question 27
Which two are true? (Choose two.)
A. A finalizer may NOT be invoked explicitly.
B. The finalize method declared in class Object takes no action.
C. super.finalize() is called implicitly by any overriding finalize method.
D. The finalize method for a given object will be called no more than once by the garbage collector.
E. The order in which finalize will be called on two objects is based on the order in which the two objects became finalizable.

Answer: BD

Question 28
Given:
```
15. public class Yippee {
  16. public static void main(String [] args) {
  17. for(int x = 1; x < args.length; x++) {
  18. System.out.print(args[x] +" ");
  19. }
20. }
21. }
```
and two separate command line invocations:
java Yippee
java Yippee 1234
What is the result?
A. No output is produced.
```
123
```
B. No output is produced.
```
234
```
C. No output is produced.
```
1234
```
D. An exception is thrown at runtime.

123
E. An exception is thrown at runtime.
234
F. An exception is thrown at rijntime.
1234
Answer: B

Question 29

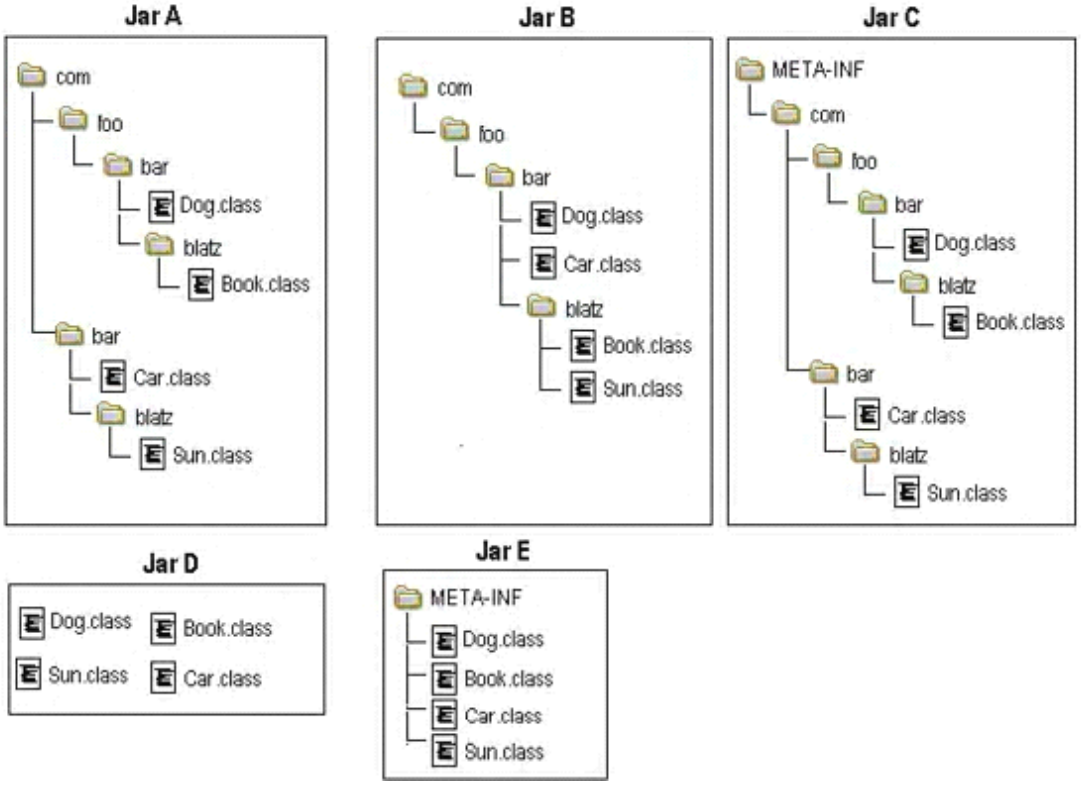
Given a correctly compiled class whose source code is:
1. package com.sun.sjcp;
2. public class Commander {
3. public static void main(String[] args) {
4. // more code here
5. }
6. }
Assume that the class file is located in /foo/com/sun/sjcp/, the current directory is /foo/, and that the classpath contains "." (current directory).
Which command line correctly runs Commander?
A. java Commander
B. java com. sim. sjcp.Commander
C. java com/sun/sjcp/Commander
D. java -cp com.sun.sjcp Commander
E. java -cp com/sun/sjcp Commander

Answer: B

Question 30
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");
Answer: DE

Question 31
A class games.cards.Poker is correctly defined in the jar file Poker.jar.
A user wants to execute the main method of Poker on a UNIX system using the command: java games.cards.Poker
What allows the user to do this?
A. put Poker.jar in directory /stuff/java, and set the CLASSPATH to include /stuff/java
B. put Poker.jar in directory /stuff/java, and set the CLASSPATH to include /stuff/java/*.jar
C. Put Poker.jar in directory /stuff/java, and set the CLASSPATH to include /stuff/java/Poker.jar
D. put Poker.jar in directory /stuff/java/games/cards, and set the CLASSPATH to include /stuff/java
E. put Poker.jar in directory /stuff/java/games/cards, and set the CLASSPATH to include /stuffijava/*.jar
F. put Poker.jar in directory /stuff/java/games/cards, and set the CLASSPATH to include /stuff/java/Poker.jar
Answer: C

Question 32




Given the fully-qualified class names:
com.foo.bar.Dog
com.foo.bar.blatz.Book

com.bar.Car
com.bar.blatz.Sun
Which graph represents the correct directory structure for a JAR file from which those classes can be used by the compiler and JYM?
A. Jar A
B. Jar B
C. Jar C
D. Jar D
E. Jar E

Answer: A

Question 33
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.

Answer: BDG

Question 34
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

Answer: BC

Question 35
A UNIX user named Bob wants to replace his chess program with a new one, but he is hot sure where the old one is installed. Bob is currently able to run a Java chess program starting from his home directory /home/bob using the command:
java -classpath /test:/home/bob/downloads/* .jar games.Chess
Bob's CLASSPATH is set (at login time) to:
/usr/lib:/home/bob/classes:/opt/java/lib:/opt/java/lib/* .jar
What is a possible location for the Chess.class file?

A. /test/Chess.class
B. /home/bob/Chess.class
C. /test/games/Chess.class
D. /usr/lib/games/Chess.class
E. /home/bob/games/Chess.class
F. inside jarfile /opt/java/lib/Games.jar (with a correct manifest)
G. inside jarfile /home/bob/downloads/Games.jar (with a correct manifest)

Answer: C

Question 36
Given:
11. public class Counter {
12. public static void main(String[] args) {
13. int numArgs = /* insert code here */;
14. }
15. }
and the command line:
java Counter one fred 42
Which code, inserted at line 13, captures the number of arguments passed into the program?
A. args.count

B. args.length
C. args.count()
D. args.length()
E. args.getLength()

Answer: B

Question 37
Given:
```
12. public class Yippee2 {
13.
14. static public void main(String [] yahoo) {
15. for(int x= 1; x<yahoo.length; x++) {
16. System.out.print(yahoo[x] + " ");
17. }
18. }
19. }
```
and the command line invocation:
java Yippee2 a b c
What is the result?
A.a b
B.b c
C.a b c
D. Compilation fails.
E. An exception is thrown at runtime.

Answer: B

Question 38
Click the Exhibit button.
```
1. public class Test {
2. int x= 12;
3. public void method(int x) {
4. x+=x;
5. System.out.println(x);
6. }
7. }
```
Given:
```
34. Test t = new Test();
35. t.method(5);
```
What is the output from line 5 of the Test class?
A. 5
B. 10
C. 12
D. 17

E. 24

Answer: B

Question 39
Given the command line java Pass2 and:
15. public class Pass2 {
16. public void main(String [] args) {
17. int x=6;
18. Pass2 p = new Pass2();
19. p.doStuff(x);
20. System.out.print("main x = "+ x);
21. }
22.
23. void doStuff(int x) {
24. System.out.print(" doStuffx ="+ x++);
25. }
26. }
What is the result?
A. Compilation fails.
B. An exception is thrown at runtime.
C. doStuffx = 6 main x = 6
D. doStuffx = 6 main x = 7
E. doStuffx = 7 main x = 6
F. doStuffx = 7 main x = 7

Answer: B

Question 40
12. Given:
13. public class Pass {
14. public static void main(String [] args) {
15. int x=5;
16. Pass p = new Pass();
17. p.doStuff(x);
18. System.out.print("main x = "+ x);
19. }
20.
21. void doStuff(int x) {
22. System.out.print(" doStuffx ="+ x++);
23. }
24. }
What is the result?
A. Compilation fails.
B. An exception is thrown at runtime.

C. doStuffx = 6 main x = 6
D. doStuffx = 5 main x = 5
E. doStuffx = 5 main x = 6
F. doStuffx = 6 main x = 5

Answer: D

Question 41

```
22.   public void go(){
23.       String o = "";
24.       z :
25.       for(int x=0; x<3; x++){
26.           for(int y=0; y<2; y++){
27.               if(x == 1) break;
28.               if(x==2 && y==1) break z;
29.               o = o + x + y;
30.       }
31.     }
32.       System.out.println(o);
33.   }
```

What is the result when the go() method is invoked?
A. 00
B. 0001
C. 000120
D. 00012021
E. Compilation fails.
F. An exception is thrown at runtime.

Answer: C

## 二、拖拽题：

Question 1:

Place the correct Code in the Code Sample to achieve the expected results.
Expected results:
Output: 1 2 4 8 16 32
Code Sample

```
int [] y = { 1, 2, 4, 8, 16, 32 };
System.out.print("Output: ");
Place here
System.out.print(x);
System.out.print(" ");
}
```

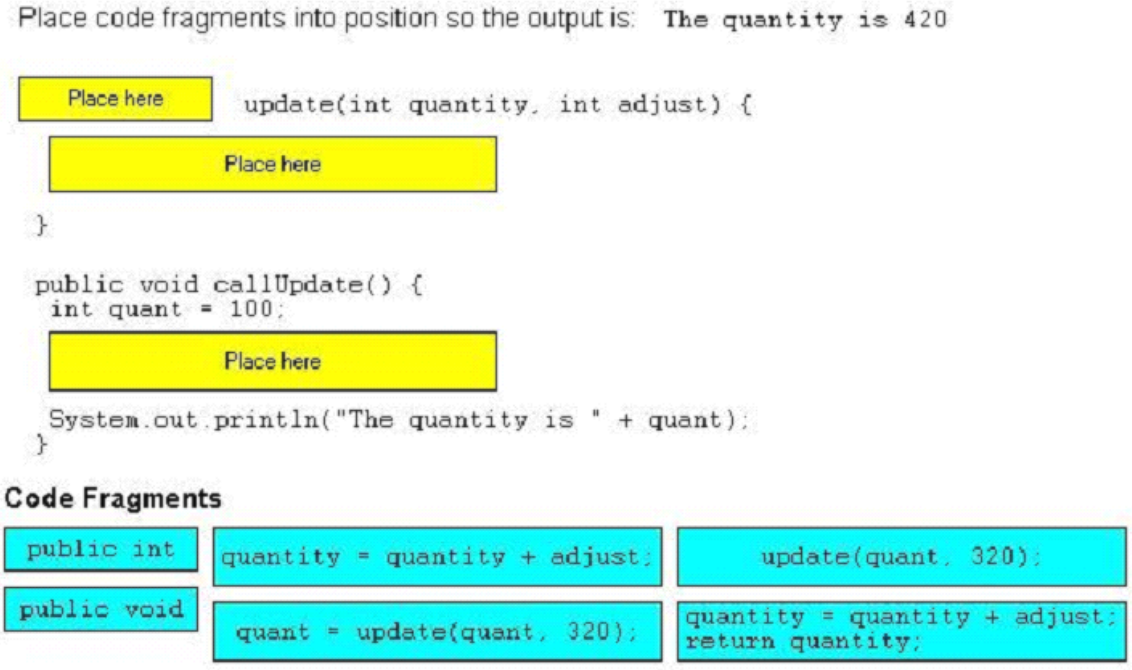
Code

- for(int x : y) {
- for(int x=y[]) {
- foreach (y as x) {
- foreach (int x : y) {
- for(int x=1; x=y[]; x++) {

Answer:

for(int x : y){

Question 2:

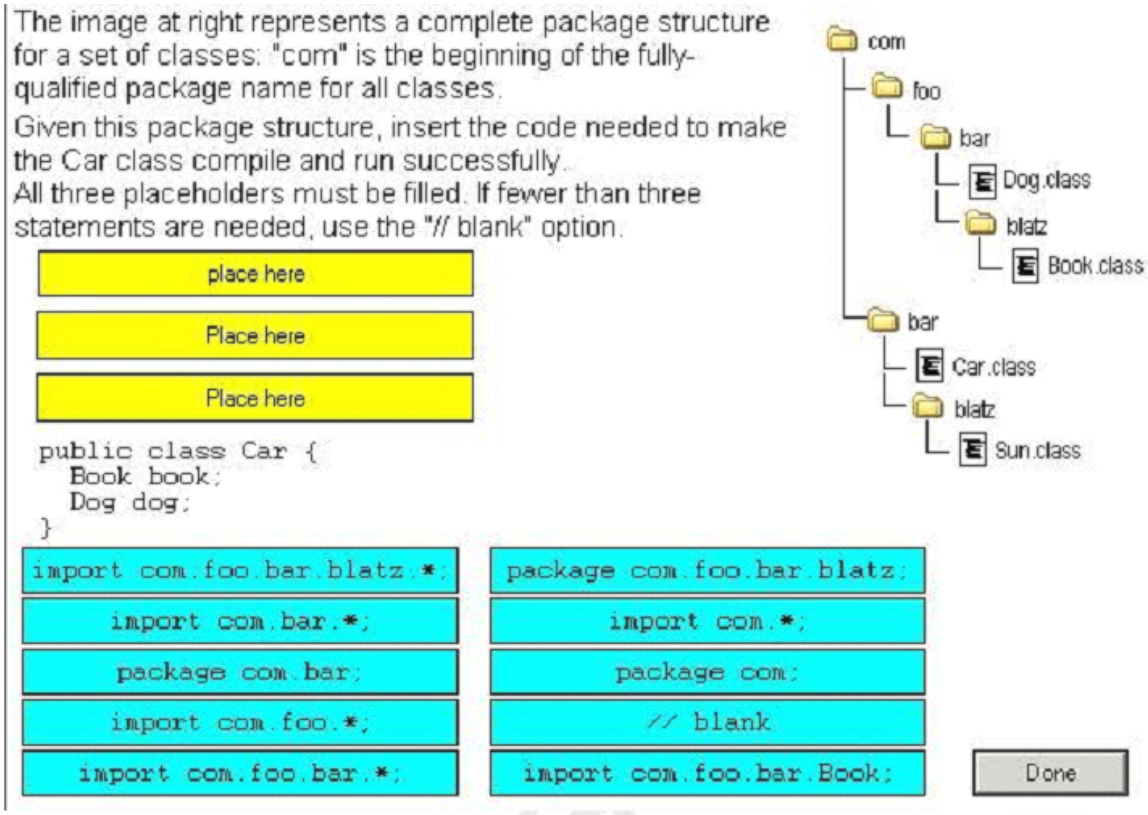



Answer:

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

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

Question 3:

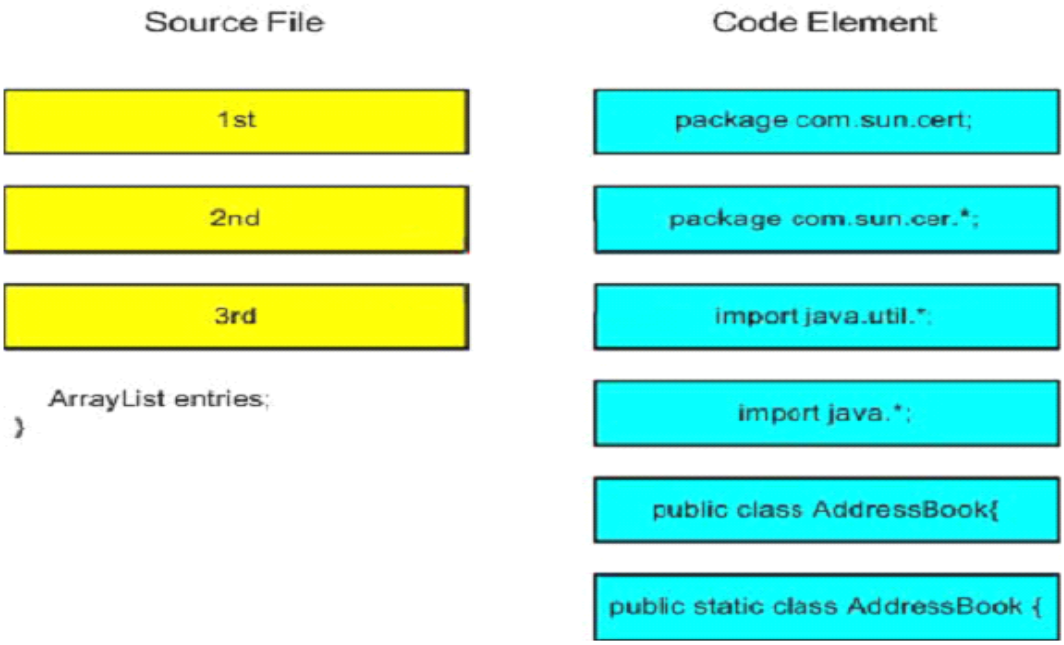



Answer:

```
package com.bar;
import com.foo.bar.blatz.*;
import com.foo.bar.*;
public class Car{
        Book book;
        Dog dog;
}
```

Question 4:

Place the code elements in order so that the resulting Java source file will compile correctly, resulting in a class called com.sun.cert.AddressBook.




Answer:

```
package com.sun.cert;
import java.util.*;
public class AddressBook{
    ArrayList entries;
}
```

Question 5:

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
}
```

**Code Fragments**

| | | | |
|---|---|---|---|
| void | Holder | int | Doubler |
| h.getAmount() | h | this | amount |

Done

Answer:

```
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;}
}
```