1z0-808

Number: 1z0-808
Passing Score: 800
Time Limit: 120 min
File Version: 1

1z0-808

https://www.gratisexam.com/

Exam A

QUESTION 1
Given the code fragment:

```
public static void main(String[] args) {
    String date = LocalDate
                  .parse("2014-05-04")
                  .format(DateTimeFormatter.ISO_DATE_TIME);
    System.out.println(date);
}
```

What is the result?

A. `May 04, 2014T00:00:00.000`
B. `2014-05-04T00:00: 00.000`
C. `5/4/14T00:00:00.000`
D. An exception is thrown at runtime.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 2
Given the code fragment:

```
public static void main(String[] args) {
    Short s1 = 200;
    Integer s2 = 400;
    Long s3 = (long) s1 + s2;          //line n1
    String s4 = (String) (s3 * s2);    //line n2
    System.out.println("Sum is " + s4);
}
```

What is the result?

A. Sum is 600
B. Compilation fails at line n1.
C. Compilation fails at line n2.
D. A ClassCastException is thrown at line n1.
E. A ClassCastException is thrown at line n2.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 3
What is the name of the Java concept that uses access modifiers to protect variables and hide them within a class?

A. Encapsulation
B. Inheritance
C. Abstraction
D. Instantiation
E. Polymorphism

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

Explanation:
Using the private modifier is the main way that an object encapsulates itself and hide data from the outside world.
Reference: http://www.tutorialspoint.com/java/java_access_modifiers.htm

QUESTION 4
Given:

```
class Caller {
    private void init () {
        System.out.println("Initialized");
    }

    private void start () {
    init();
    System.out.println("Started");
    }
}

public class TestCall {
    public static void main(String[] args) {
        Caller c = new Caller();
        c.start(); // line n1
        c.init();  // line n2
    }
}
```

What is the result?

A. Compilation fails at line n1.
B. Initialized
   Started
   Initialized
C. Initialized

Started

D. Compilation fails at line n2.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 5
Given these two classes:

```
public class Customer {
    ElectricAccount acct = new ElectricAccount();

    public void useElectricity(double kWh){
        acct.addKWh(kWh);
    }
}

public class ElectricAccount {
    private double kWh;
    private double rate = 0.07;
    private double bill;

    //line n1
}
```

Any amount of electricity used by a customer (represented by an instance of the Customer class) must contribute to the customer's bill (represented by the member variable bill) through the `useElectricity` method.

An instance of the `Customer` class should never be able to tamper with or decrease the value of the member variable `bill`.

How should you write methods in the `ElectricAccount` class at `line n1` so that the member variable `bill` is always equal to the value of the member variable kwh multiplied by the member variable `rate`?

A.
```
public void addKWh(double kWh) {
    this.kWh += kWh;
    this.bill = this.kWh*this.rate;
}
```

B.
```
public void addKWh(double kWh) {
    if (kWh > 0){
        this.kWh += kWh;
        this.bill = this.kWh * this.rate;
    }
}
```

C.
```
private void addKWh(double kWh) {
    if (kWh > 0) {
        this.kWh += kWh;
        this.bill = this.kWh*this.rate;
    }
}
```

D.
```
public void addKWh(double kWh) {
    if(kWh > 0) {
        this.kWh += kWh;
        setBill(this.kWh);
    }
}
public void setBill(double kWh) {
    bill = kWh*rate;
}
```

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
Given:

```
public static void main(String[] args) {
    String ta = "A ";
    ta = ta.concat("B ");
    String tb = "C ";
    ta = ta.concat(tb);
    ta.replace('C', 'D');
    ta = ta.concat(tb);
    System.out.println(ta);
}
```

What is the result?

A. A B C D
B. A C D
C. A C D D
D. A B D
E. A B D C

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
Given the code fragment from three files:

SalesMan.java:

```
package sales;
public class SalesMan { }
```

Product.java:

```
package sales.products;
public class Product { }
```

Market.java:

```
1. package market;
2. // insert code here
3. public class USMarket {
4.     SalesMan sm;
5.     Product p;
6. }
```

Which code fragment, when inserted at line 2, enables the code to compile?

A)
```
import sales.*;
```

B)
```
import java.sales.products.*;
```

C)
```
import sales;
import sales.products;
```

D)
```
import sales.*;
import products.*;
```

E)
```
import sales.*;
import sales.products.*;
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 8
Given this class:

```
public class CheckingAccount {
    public int amount;
    public CheckingAccount(int amount){
        this.amount = amount;
    }
    public int getAmount(){ return amount; }
    public void setAmount(int amount){ this.amount = amount; }
    public void changeAmount(int x){
        amount += x;
    }
}
```

And given this `main` method, located in another class:

```
public static void main(String[] args) {
    CheckingAccount acct = new CheckingAccount((int)(Math.random()*1000));
    //line n1
    System.out.println(acct.getAmount());
}
```

Which three lines, when inserted independently at line n1, cause the program to print a 0 balance? (Choose three.)

A. `acct.setAmount(-acct.getAmount());`
B. `acct.amount = 0; <option D earlier>`
C. `acct.setAmount(0);`
D. `acct.getAmount() = 0; <option E earlier>`
E. `this.amount = 0; <option A earlier>`
F. `acct.changeAmount(0); <option F earlier>`
G. `acct.changeAmount(-acct.amount); <option G earlier>`

Correct Answer: BDF
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
Given the code fragment:

```
3. public static void main(String[] args) {
4.      int x = 5;
5.      while (isAvailable(x)) {
6.          System.out.print(x);
7.
8.      }
9. }
10.
11. public static boolean isAvailable(int x) {
12.     return x-- > 0 ? true : false;
13. }
```

Which modification enables the code to print 54321?

A. Replace line 6 with System.out. print (--x) ;
B. At line 7, insert x --;
C. Replace line 6 with --x; and, at line 7, insert System.out.print (x);
D. Replace line 12 with return (x > 0) ? false: true;

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Given the following main method:

```
public static void main(String[] args) {
    int num = 5;
    do {
        System.out.print(num-- +" ");
    } while(num == 0);
}
```

What is the result?

A. 5 4 3 2 1 0
B. 5 4 3 2 1
C. 4 2 1
D. 5
E. Nothing is printed

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 11
Given the code fragment:

```
int x = 100;
int a = x++;
int b = ++x;
int c = x++;
int d = (a < b) ? (a < c) ? a: (b <c )? b: c: x;
System.out.println(d);
```

What is the result?

A. 100
B. 101
C. 102
D. 103
E. Compilation fails

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 12
Given the code fragment:

```
public class Employee {
    String name;
    boolean contract;
    double salary;
    Employee() {
        // line n1
    }
    public String toString(){
        return name + ":" + contract + ":" + salary;
    }
    public static void main(String[] args) {
        Employee e = new Employee();
        // line n2
        System.out.print(e);
    }
}
```

Which two modifications, when made independently, enable the code to print `joe:true: 100.0`? (Choose two.)

☐ A) Replace `line n2` with:

```
e.name = "Joe";
e.contract = true;
e.salary = 100;
```

☐ B) Replace `line n2` with:

```
this.name = "Joe";
this.contract = true;
this.salary = 100;
```

☐ C) Replace `line n1` with:

```
this.name = new String("Joe");
this.contract = new Boolean(true);
this.salary = new Double(100);
```

☐ D) Replace `line n1` with:

```
name = "Joe";
contract = TRUE;
salary = 100.0f;
```

☐ E) Replace `line n1` with:

```
this("Joe", true, 100);
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
Given:

```
class A {
    public A(){
        System.out.print("A ");
    }
}

class B extends A{
    public B(){                         //line n1
        System.out.print("B ");
    }
}

class C extends B{

    public C(){                         //line n2
        System.out.print("C ");
    }
    public static void main(String[] args) {
        C c = new C();
    }
}
```

What is the result?

A. C B A
B. C
C. A B C
D. Compilation fails at line n1 and line n2

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 14
Given the code fragment:

```
1. public class Test {
2.     public static void main(String[] args) {
3.         /* insert code here */
4.         array[0]=10;
5.         array[1]=20;
6.         System.out.print(array[0]+":"+array[1]);
7.     }
8. }
```

Which code fragment, when inserted at line 3, enables the code to print 10:20?

A.
```
int[] array  = new int[1];
```

B.
```
int[] array;
array = new int[2];
```

C.
```
int array = new int[2];
```

D.
```
int array[1];
```

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 15
Given the code fragment:

```
public static void main(String[] args) {
    String[] arr = {"A", "B", "C", "D"};
    for (int i = 0; i < arr.length; i++) {
        System.out.print(arr[i] + " ");
        if (arr[i].equals("C")) {
            continue;
        }
        System.out.println("Work done");
        break;
    }
}
```

What is the result?

A. A B C Work done
B. A B C D Work done
C. A Work done
D. Compilation fails

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16
Given the code from the Greeting.Java file:

```
public class Greeting {
    public static void main(String[] args) {
        System.out.println("Hello " + args[0]);
    }
}
```

Which set of commands prints Hello Duke in the console?

A)
```
javac Greeting
java Greeting Duke
```

B)
```
javac Greeting.java Duke
java Greeting
```

C)
```
javac Greeting.java
java Greeting Duke
```

D)
```
javac Greeting.java
java Greeting.class Duke
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 17
Given:

```
class Alpha {
    int ns;
    static int s;
    Alpha(int ns) {
        if (s < ns) {
            s = ns;
            this.ns = ns;
        }
    }
    void doPrint() {
        System.out.println("ns = " + ns + " s = " + s);
    }
}
```

And:

```
public class TestA {
    public static void main(String[] args) {
        Alpha ref1 = new Alpha(100);
        Alpha ref2 = new Alpha(50);
        Alpha ref3 = new Alpha(125);
        ref1.doPrint();
        ref2.doPrint();
        ref3.doPrint();
    }
}
```

What is the result?

A)
```
ns = 100 s = 125
ns = 0 s = 125
ns = 125 s = 125
```

B)
```
ns = 50 s = 125
ns = 125 s = 125
ns = 0 s = 125
```

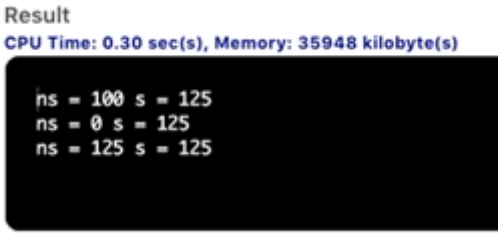
C)
```
ns = 50 s = 50
ns = 125 s = 125
ns = 100 s = 100
```

D)
```
ns = 50 s =  50
ns = 125 s = 125
ns = 0 s = 125
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:



QUESTION 18
Given the code fragment:

```
public static void main(String[] args) {
    int ii = 0;
    int jj = 7;
    for (ii = 0; ii < jj - 1; ii = ii + 2) {
         System.out.print(ii + " ");
     }
}
```

What is the result?

A. 2 4
B. 0 2 4 6
C. 0 2 4
D. Compilation fails

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 19
Given the code fragment:

```
LocalDate date1 = LocalDate.now();
LocalDate date2 = LocalDate.of(6, 20, 2014 );
LocalDate date3 = LocalDate.parse("2014-06-20", DateTimeFormatter.ISO_DATE);
System.out.println("date1 = " + date1);
System.out.println("date2 = " + date2);
System.out.println("date3 = " + date3);
```

Assume that the system date is June 20, 2014. What is the result?

A.
```
date1 = 2014-06-20
date2 = 2014-06-20
date3 = 2014-06-20
```

B.
```
date1 = 06/20/2014
date2 = 2014-06-20
date3 = Jun 20, 2014
```

C. Compilation fails.

D. An exception is thrown at runtime.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
Given the code fragment:

```
7.  StringBuilder sb1 = new StringBuilder("Duke");
8.  String str1 = sb1.toString();
9.  // insert code here
10.   System.out.print(str1 == str2);
```

Which code fragment, when inserted at line 9, enables the code to print true?

A. String str2 = str1;

B. String str2 = new String(str1);

C. String str2 = sb1. toString();

D. String str2 = "Duke";

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 21
Given:

```
public class Test {
      public static void main(String[] args) {
            Test ts = new Test();
            System.out.print(isAvailable + " ");
            isAvailable= ts.doStuff();
            System.out.println(isAvailable);
      }
      public static boolean doStuff() {
            return !isAvailable;
      }
      static boolean isAvailable = false;
}
```

What is the result?

A. Compilation fails.
B. false true
C. true false
D. true true
E. false false

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
Given the code fragment:

```
public static void main(String[] args) {
    double discount = 0;
    int qty = Integer.parseInt(args[0]);
    //line n1;
}
```

And given the requirements:
- If the value of the `qty` variable is greater than or equal to 90, `discount = 0.5`
- If the value of the `qty` variable is between 80 and 90, `discount = 0.2`

Which two code fragments can be independently placed at line n1 to meet the requirements? (Choose two.)

☐ A)
```
if (qty >= 90) { discount = 0.5; }
if (qty > 80 && qty < 90) { discount = 0.2; }
```

☐ B)
```
discount = (qty >= 90) ? 0.5 : 0;
discount = (qty > 80) ? 0.2 : 0;
```

☐ C)
```
discount = (qty >= 90) ? 0.5 : (qty > 80)? 0.2 : 0;
```

☐ D)
```
if (qty > 80 && qty < 90) {
    discount = 0.2;
} else {
    discount = 0;
}
if (qty >= 90) {
    discount = 0.5;
} else {
    discount = 0;
}
```

☐ E)
```
discount = (qty > 80) ? 0.2 : (qty >= 90) ? 0.5 : 0;
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
Given:

```
public class Test {

    public static void main(String[] args) {
        if (args[0].equals("Hello") ? true : false) {
            System.out.println("Success");
        } else {
            System.out.println("Failure");
        }
    }
}
```

And given the commands:

```
javac Test.java
Java Test Hello
```

What is the result?

A. Success
B. Failure
C. Compilation fails.
D. An exception is thrown at runtime

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 24
Which three statements describe the object-oriented features of the Java language? (Choose three.)

A. Objects can be reused.

B. A subclass must override the methods from a superclass.
C. Objects can share behaviors with other objects.
D. A package must contain a main class.
E. Object is the root class of all other objects.
F. A main method must be declared in every class.

Correct Answer: BCF
Section: (none)
Explanation

Explanation/Reference:
Reference: http://www.javaworld.com/article/2075459/java-platform/java-101--object-oriented-language-basics--part-5--object-and-its-methods.html (see the sub title, Object is root of all classes not all other objects)

QUESTION 25
Given the following code:

```
public static void main(String[] args){
    String[] planets = {"Mercury", "Venus", "Earth", "Mars"};

    System.out.println(planets.length);
    System.out.println(planets[1].length());
}
```

What is the output?

A. 4
   4
B. 3
   5
C. 4
   7
D. 5
   4
E. 4
   5
F. 4
   21

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
You are developing a banking module. You have developed a class named ccMask that has a maskcc method.

Given the code fragment:

```
class CCMask {
    public static String maskCC(String creditCard) {
        String x = "XXXX-XXXX-XXXX-";
        //line n1
    }

    public static void main(String[] args) {
        System.out.println(maskCC("1234-5678-9101-1121"));
    }
}
```

You must ensure that the maskcc method returns a string that hides all digits of the credit card number except the four last digits (and the hyphens that separate each group of four digits).

Which two code fragments should you use at line n1, independently, to achieve this requirement? (Choose two.)

☐ A)
```
StringBuilder sb = new StringBuilder(creditCard);
sb.substring(15, 19);
return x + sb;
```

☐ B)
```
return x + creditCard.substring(15, 19);
```

☐ C)
```
StringBuilder sb = new StringBuilder(x);
sb.append(creditCard, 15, 19);
return sb.toString();
```

☐ D)
```
StringBuilder sb = new StringBuilder(creditCard);
StringBuilder s = sb.insert(0, x);
return s.toString();
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 27
Given:

Acc.java:

```
package p1;
public class Acc {
    int p;
    private int q;
    protected int r;
    public int s;
}
```

Test.java:

```
package p2;
import p1.Acc;
public class Test extends Acc {
    public static void main(String[] args) {
        Acc obj = new Test();
    }
}
```

Which statement is true?

A. Both p and s are accessible via obj.
B. Only s is accessible via obj.
C. Both r and s are accessible via obj.
D. p, r, and s are accessible via obj.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
Given the code fragment:

```
public static void main(String[] args) {
    ArrayList myList = new ArrayList();
    String[] myArray;
    try {
       while (true) {
           myList.add("My String");
       }
    }
    catch (RuntimeException re) {
       System.out.println("Caught a RuntimeException");
    }
    catch (Exception e) {
       System.out.println("Caught an Exception");
    }
    System.out.println("Ready to use");
}
```

What is the result?

A. Execution terminates in the first catch statement, and `Caught a RuntimeException` is printed to the console.
B. Execution terminates in the second catch statement, and `Caught an Exception` is printed to the console.
C. A runtime error is thrown in the thread "main".
D. Execution completes normally, and `Ready to use` is printed to the console.
E. The code fails to compile because a `throws` keyword is required.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 29
Given the code fragments:

Person.java:

```
public class Person {
    String name;
    int age;

    public Person(String n, int a) {
        name = n;
        age = a;
    }

    public String getName() {
        return name;
    }

    public int getAge() {
        return age;
    }
}
```

Test.java:

```
public static void checkAge(List<Person> list, Predicate<Person> predicate) {
    for (Person p : list) {
        if (predicate.test(p)) {
            System.out.println(p.name + " ");
        }
    }
}

public static void main(String[] args) {
    List<Person> iList = Arrays.asList(new Person("Hank", 45),
                                       new Person("Charlie", 40),
                                       new Person("Smith", 38));
    //line n1
}
```

Which code fragment, when inserted at line n1, enables the code to print Hank?

A. `checkAge (iList, ( ) -> p. get Age ( ) > 40);`

B. `checkAge(iList, Person p -> p.getAge( ) > 40);`

C.
```
checkAge (iList, p -> p.getAge ( ) > 40);
```
D.
```
checkAge(iList, (Person p) -> { p.getAge() > 40; });
```

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 30
Given the code fragment:

```
public static void main(String[] args) {
    String str = " ";
    str.trim();
    System.out.println(str.equals("") + " " + str.isEmpty());
}
```

What is the result?

A. true true
B. true false
C. false false
D. false true

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 31
Given the code fragment:

```
public class App {
    public static void main(String[] args) {
        String str1 = "Java";
        String str2 = new String("java");
        //line n1
        {
           System.out.println("Equal");
        } else {
           System.out.println("Not Equal");
        }
     }
}
```

Which code fragment, when inserted at line n1, enables the App class to print Equal?

A)
```
Str1.toLowerCase();
if (str1 == str2)
```

B)
```
if (str2.equals(str1.toLowerCase()))
```

C)
```
Str1.toLowerCase();
if (str1.equals(str1.toLowerCase()))
```

D)
```
if (str1.toLowerCase() == str2.toLowerCase())
```

A. Option A
B. Option B
C. Option C
D. Option D

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32
Given the code fragment:

```
String[] strs = new String[2];
int idx = 0;
for (String s : strs) {
      strs[idx].concat(" element " + idx);
      idx++;
}
for (idx = 0; idx < strs.length; idx++) {
      System.out.println(strs[idx]);
}
```

What is the result?

A. Element 0
   Element 1
B. Null element 0
   Null element 1
C. Null
   Null
D. A NullPointerException is thrown at runtime.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 33
Given:

```
class Vehicle {
    int x;
    Vehicle(){
        this(10);  // line n1
    }
    Vehicle(int x) {
        this.x = x;
    }
}

class Car extends Vehicle {
    int y;
    Car() {
        super();
        this(20);   // line n2
    }
    Car(int y) {
       this.y = y;
    }
    public String toString() {
        return super.x + ":" + this.y;
    }
}
```

And given the code fragment:

And given the code fragment:

```
Vehicle y = new Car();
System.out.println(y);
```

What is the result?

A. 10:20

B. 0:20
C. Compilation fails at line n1
D. Compilation fails at line n2

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
Given the definitions of the MyString class and the Test class:

MyString.java:

```
package p1;
class MyString {
    String msg;
    MyString(String msg) {
        this.msg = msg;
    }
}
```

Test.java:

```
package p1;
public class Test {
    public static void main(String[] args) {
        System.out.println("Hello " + new StringBuilder("Java SE 8"));
        System.out.println("Hello " + new MyString("Java SE 8"));
    }
}
```

What is the result?

A.
```
Hello Java SE 8
Hello Java SE 8
```

B.
```
Hello java.lang.StringBuilder@<<hashcode1>>
Hello p1.MyString@<<hashcode2>>
```

C.
```
Hello Java SE 8
Hello p1.MyString@<<hashcode>>
```

D. Compilation fails at the `Test` class

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 35
Given the code fragment:

```
3. public static void main(String[] args) {
4.     int iVar = 100;
5.     float fVar = 100.100f;
6.     double dVar = 123;
7.     fVar = iVar;
8.     iVar = fVar;
9.     fVar = dVar;
10.    dVar = fVar;
11.    iVar = dVar;
12.    dVar = iVar;
13. }
```

Which three lines fail to compile? (Choose three.)

A. Line 7
B. Line 8
C. Line 9

D. Line 10
E. Line 11
F. Line 12

Correct Answer: ADF
Section: (none)
Explanation

Explanation/Reference:

QUESTION 36
Given the code fragment:

```
int num[][] = new int[1][3];
for (int i = 0; i < num.length; i++) {
    for (int j = 0; j < num[i].length; j++) {
        num[i][j] = 10;
    }
}
```

Which option represents the state of the num array after successful completion of the outer loop?

A.
```
num[0][0]=10
num[0][1]=10
num[0][2]=10
```

B.
```
num[0][0]=10
num[1][0]=10
num[2][0]=10
```

C.
```
num[0][0]=10
num[0][1]=0
num[0][2]=0
```

D.
```
num[0][0]=10
num[0][1]=10
num[0][2]=10
num[0][3]=10
num[1][0]=0
num[1][1]=0
num[1][2]=0
num[1][3]=0
```

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 37
Given the following code:

```
int[] intArr = {15, 30, 45, 60, 75};
intArr[2] = intArr[4];
intArr[4] = 90;
```

What are the values of each element in intArr after this code has executed?

A. 15, 60, 45, 90, 75
B. 15, 90, 45, 90, 75
C. 15, 30, 75, 60, 90
D. 15, 30, 90, 60, 90
E. 15, 4, 45, 60, 90

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 38
Given the content of three files:

A.java:

```
public class A {
    public void a() {}
    int a;
}
```

B.java:

```
public class B {
    private int doStuff() {
        private int x = 100;
        return x++;
    }
}
```

C.java:

```
import java.io.*;
package p1;
class A {
    public void main(String fileName) throws IOException { }
}
```

Which statement is true?

A. Only the A.Java file compiles successfully.
B. Only the B.java file compiles successfully.
C. Only the C.java file compiles successfully.
D. The A.Java and B.java files compile successfully.
E. The B.java and C.java files compile successfully.

F. The A.Java and C.java files compile successfully.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 39
Given the code fragment:

```
int[] array = {1, 2, 3, 4, 5};
```

And given the requirements:
1. Process all the elements of the array in the order of entry.
2. Process all the elements of the array in the reverse order of entry.
3. Process alternating elements of the array in the order of entry.

Which two statements are true? (Choose two.)

A. Requirements 1, 2, and 3 can be implemented by using the enhanced for loop.
B. Requirements 1, 2, and 3 can be implemented by using the standard for loop.
C. Requirements 2 and 3 CANNOT be implemented by using the standard for loop.
D. Requirement 1 can be implemented by using the enhanced for loop.
E. Requirement 3 CANNOT be implemented by using either the enhanced for loop or the standard for loop.

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 40
Given:

```
public class TestScope {
    public static void main(String[] args) {
        int var1 = 200;
        System.out.print(doCalc(var1));
        System.out.print(" "+var1);
    }
    static int doCalc(int var1){
        var1 = var1 * 2;
        return var1;
    }
}
```

What is the result?

A. 400 200
B. 200 200
C. 400 400
D. Compilation fails.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 41
Given the following class declarations:

- public abstract class Animal
- public interface Hunter
- public class Cat extends Animal implements Hunter
- public class Tiger extends Cat

Which answer fails to compile?

A)
```
ArrayList<Animal> myList = new ArrayList<>();
myList.add(new Tiger());
```

B)
```
ArrayList<Hunter> myList = new ArrayList<>();
myList.add(new Cat());
```

C)
```
ArrayList<Hunter> myList = new ArrayList<>();
myList.add(new Tiger());
```

D)
```
ArrayList<Tiger> myList = new ArrayList<>();
myList.add(new Cat());
```

E)
```
ArrayList<Animal> myList = new ArrayLIst<>();
myList.add(new Cat());
```

A. Option A
B. Option B
C. Option C
D. Option D
E. Option E

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 42
Which statement is true about Java byte code?

A. It can run on any platform.
B. It can run on any platform only if it was compiled for that platform.
C. It can run on any platform that has the Java Runtime Environment.
D. It can run on any platform that has a Java compiler.

E. It can run on any platform only if that platform has both the Java Runtime Environment and a Java compiler.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Java bytecodes help make "write once, run anywhere" possible. You can compile your program into bytecodes on any platform that has a Java compiler. The bytecodes can then be run on any implementation of the Java VM. That means that as long as a computer has a Java VM, the same program written in the Java programming language can run on Windows 2000, a Solaris workstation, or on an iMac.

Reference: http://www.math.uni-hamburg.de/doc/java/tutorial/getStarted/intro/definition.html

QUESTION 43
Given the code fragment:

```
public class Test {
    public static void main(String[] args) {
        //line n1
        switch (x) {
            case 1:
                System.out.println("One");
                break;
            case 2:
                System.out.println("Two");
                break;
        }
    }
}
```

Which three code fragments can be independently inserted at line n1 to enable the code to print One? (Choose three.)

A. `byte x = 1;`
B. `short x = 1;`
C. `String x = "1";`
D. `long x = 1;`

E. `double x = 1;`
F. `Integer x = new Integer("1");`

Correct Answer: ABF
Section: (none)
Explanation

Explanation/Reference:

QUESTION 44
Given:

```
public class App {

    String myStr = "7007";

    public void doStuff(String str) {
        int myNum = 0;
        try {
            String myStr = str;
            myNum = Integer.parseInt(myStr);
        } catch (NumberFormatException ne) {
            System.err.println("Error");
        }
        System.out.println(
            "myStr: " + myStr + ", myNum: " + myNum);
    }

    public static void main(String[] args) {
        App obj = new App();
        obj.doStuff("9009");
    }
}
```

What is the result?

A. myStr: 9009, myNum: 9009
B. myStr: 7007, myNum: 7007
C. myStr: 7007, myNum: 9009
D. Compilation fails

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 45
Given the code fragment:

```
int nums1[] = {1, 2, 3};
int nums2[] = {1, 2, 3, 4, 5};
nums 2 = nums 1;
for (int x : nums2){
    System.out.print(x + ":");
}
```

What is the result?

A. 1:2:3:4:5:
B. 1:2:3:
C. Compilation fails.
D. An `ArrayOutOfBoundsException` is thrown at runtime.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 46
Given:

```
public class Product {
    int id;
    String name;
    public Product(int id, String name) {
       this.id = id;
       this.name = name;
    }
}
```

And given the code fragment:

```
4. Product p1 = new Product(101, "Pen");
5. Product p2 = new Product(101, "Pen");
6. Product p3 = p1;
7. boolean ans1 = p1 == p2;
8. boolean ans2 = p1.name.equals(p2.name);
9. System.out.print(ans1 + ":" + ans2);
```

What is the result?

A. true:true
B. true:false
C. false:true
D. false:false

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 47

Given:

```
class Caller {
    private void init () {
        System.out.println("Initialized");
    }

    private void start () {
    init();
    System.out.println("Started");
    }
}

public class TestCall {
    public static void main(String[] args) {
        Caller c = new Caller();
        c.start();
        c.init();
    }
}
```

What is the result?

A. An exception is thrown at runtime.
B. `Initialized`
   `Started`
   `Initialized`
C. `Initialized`
   `Started`
D. Compilation fails.

Correct Answer: D
Section: (none)

Explanation

Explanation/Reference:

QUESTION 48
Given:

```
public class MyField {
    int x;
    int y;
    public void doStuff(int x, int y) {
        x = x;
        y = this.y;
    }
    public void display () {
        System.out.print(x + " " + y + " : ");
    }
    public static void main(String[] args) {
        MyField m1 = new MyField();
        m1.x = 100;
        m1.y = 200;
        MyField m2 = new MyField();
        m2.doStuff(m1.x, m1.y);
        m1.display();
        m2.display();
    }
}
```

What is the result?

A. 100 200 : 0 0 :
B. 100 200 : 100 0 :
C. 100 200 : 100 200 :
D. 0 0 : 100 0 :

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 49
Given:

```
public class Vowel {
    private char var;
    public static void main(String[] args) {
        char var1 = 'a';
        char var2 = var1;
        var2 = 'e';

        Vowel obj1 = new Vowel();
        Vowel obj2 = obj1;
        obj1.var = 'o';
        obj2.var = 'i';

       System.out.println(var1 + ", " +var2);
       System.out.print(obj1.var + ", " + obj2.var);
    }
}
```

What is the result?

A. a, e
   i, i
B. a, e
   o, o
C. e, e
   i, i
D. a, a
   o, o

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 50
Given the code fragment:

```
if (aVar++ < 10) {
    System.out.println(aVar + " Hello Universe!");
} else {
    System.out.println(aVar + " Hello World!");
}
```

What is the result if the integer aVar is 9?

A. Compilation fails.
B. `10 Hello Universe!`
C. `10 Hello World!`
D. `9 Hello World!`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 51
Given:

```
public class Test {
    public static void main(String[] args) {
       boolean a = new Boolean(Boolean.valueOf(args[0]));
       boolean b = new Boolean(args[1]);
       System.out.println(a + " " + b);
    }
}
```

And given the commands:

```
javac Test.java
java Test 1 null
```

What is the result?

A. `1 null`
B. `true false`
C. `false false`
D. `true true`
E. A `ClassCastException` is thrown at runtime.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 52
Given the code fragment:

```
public static void main(String[] args) {
    int[][] arr = new int [2] [4];
    arr[0] = new int []{1, 3, 5, 7};
    arr[1] = new int []{1, 3};
    for (int[] a : arr) {
        for (int i : a) {
            System.out.print(i+ " ");
        }
        System.out.println();
    }
}
```

What is the result?

A. Compilation fails.

B.
```
1 3
1 3
```

C.
```
1 3
```
followed by an ArrayIndexOutOfBoundsException

D.
```
1 3
1 3 0 0
```

E.
```
1 3 5 7
1 3
```

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 53
Which statement will empty the contents of a StringBuilder variable named sb?

A. sb. deleteAll ();
B. sb. delete (0, sb. size ());
C. sb. delete (0, sb. length ());
D. sb. removeAll ();

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 54
Given:

```
String stuff = "TV";
String res = null;

if (stuff.equals("TV")) {
    res = "Walter";
} else if (stuff.equals("Movie")) {
    res = "White";
} else {
    res = "No Result";
}
```

Which code fragment can replace the if block?

A. `stuff.equals ("TV") ? res= "Walter" : stuff.equals ("Movie") ? res = "White" : res = "No Result";`

B. `res = stuff.equals ("TV") ? "Walter" else stuff.equals ("Movie")? "White" : "No Result";`

C. `res = stuff.equals ("TV") ? stuff.equals ("Movie")? "Walter" : "White" : "No Result";`

D. `res = stuff.equals ("TV")? "Walter" : stuff.equals ("Movie")? "White" : "No Result";`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 55
Which statement is true about the switch statement?

A. It must contain the default section.
B. The break statement, at the end of each case block, is mandatory.
C. Its case label literals can be changed at runtime.
D. Its expression must evaluate to a single value.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Reference: http://www.dummies.com/programming/java/switch-statements-in-java/

QUESTION 56
Given:

```
class Animal {
    String type = "Canine";
    int maxSpeed = 60;

    Animal () {}

    Animal (String type, int maxSpeed) {
       this.type = type;
       this.maxSpeed = maxSpeed;
    }
}

class WildAnimal extends Animal {
    String bounds;

    WildAnimal (String bounds) {
       //line n1
}
    WildAnimal (String type, int maxSpeed,String bounds) {
       //line n2
    }
}
```

And given the code fragment:

```
7. WildAnimal wolf = new WildAnimal("Long");
8. WildAnimal tiger = new WildAnimal("Feline", 80, "Short");
9. System.out.println(wolf.type + " " + wolf.maxSpeed + " " + wolf.bounds);
10. System.out.println(tiger.type + " " + tiger.maxSpeed + " " + tiger.bounds);
```

and this output:
Canine 60 Long
Feline 80 Short

Which two modifications enable the code to print this output? (Choose two.)

A. . Replace line n1 with:
```
super ();
this.bounds = bounds;
```

B. Replace line n1 with:
```
this.bounds = bounds;
super ();
```

C. Replace line n2 with:
```
super (type, maxSpeed);
this (bounds);
```

D. Replace line n1 with:
```
this ("Canine", 60);
this.bounds = bounds;
```

E. Replace line n2 with:
```
super (type, maxSpeed);
this.bounds = bounds;
```

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 57
Given the code fragment:

```
public static void main (String [] args) {
    String names [] = ("Thomas", "Peter", "Joseph");
    String pwd [] = new String [3];
    int idx = 0;
    try {
        for (String n: names) {
            pwd [idx] = n.substring (2, 6);
            idx++;
        }
    }
    catch (Exception e) {
        System.out.println ("Invalid Name");
    }
    for (String p: pwd) {
        System.out.println (p);
    }
}
```

What is the result?

A. `Invalid Name`

B.
```
Invalid Name
omas
```

C.
```
Invalid Name
omas
null
null
```

D.
```
omas
ter
seph
```

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 58
Given the code fragment:

```
class Employee {
   private String name;
   private int age;
   private int salary;

   public Employee (String name, int age) {
       setName (name)
       setAge (age)
       setSalary (2000);
   }
   public Employee (String name, int age, int salary) {
       setSalary (salary);
       this (name, age);
   }
   //getter and setter methods for attributes go here
   public void printDetails () {
       System.out.println (name + " : " + age + " : " + salary);
   }
}
```

Test.java

```
class Test {
    public static void main(String[] args) {
        Employee e1 = new Employee();
        Employee e2 = new Employee("Jack", 50);
        Employee e3 = new Employee("Chloe", 40, 5000);

        e1.printDetails();
        e2.printDetails();
        e3.printDetails();
    }
}
```

Which is the result?

A. Compilation fails in the `Employee` class.

B.
```
null : 0: 0
Jack : 50 : 0
Chloe : 40 : 5000
```

C.
```
null : 0 : 0
Jack : 50 : 2000
Chloe : 40 : 5000
```

D. Compilation fails in the `Test` class.

E. Both the `Employee` class and the `Test` class fail to compile.

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 59
Given:

```
class A {
   public void test () {
       System.out.println ("A");
   }
}
class B extends A {
    public void test () {
       System.out.println ("B");
   }
}
public class C extends A {
    public void test () {
       System.out.println ("C");
    }

    public static void main (String [] args) {
        A b1 = new A ();
        A b2 = new C ();

        b1 = (A) b2;              //line n1
        A b3 = (B) b2;            //line n2
        b1.test ();
        b3.test ();
    }
}
```

What is the result?

A. A

B

B. A
C

C. C
C

D. A ClassCastException is thrown only at line n1.

E. A ClassCastException is thrown only at line n2.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 60
You are asked to create a method that accepts an array of integers and returns the highest value from that array.

Given the code fragment:

```
class Test{
    public static void main(String[] args) {
        int numbers[] = {12, 13, 42, 32, 15, 156, 23, 51, 12};
        int[] keys = findMax(numbers);
    }

    /* line n1 */ {
        int[] keys = new int[3];
        /* code goes here*/
        return keys;
    }
}
```

Which method signature do you use at line n1?

A. public int findMax (int[] numbers)
B. static int[] findMax (int[] max)
C. static int findMax (int[] numbers)
D. final int findMax (int[])

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 61
Which three statements are true about the structure of a Java class? (Choose three.)

A. A public class must have a main method.
B. A class can have only one private constructor.
C. A method can have the same name as a field.
D. A class can have overloaded static methods.
E. The methods are mandatory components of a class.
F. The fields need not be initialized before use.

Correct Answer: ACE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 62
Given the code fragment:

```
Public static void main (String [] args) {
    System.out.println ("Result A " + 0 + 1);
    System.out.println ("Result B " + (1) + (2) );
}
```

What is the result?

A.
```
Result A 01
Result B 3
```

B.
```
Result A 1
Result B 12
```

C.
```
Result A 1
Result B 3
```

D.
```
Result A 01
Result B 12
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 63
Given:

```
public class App {
    int count;
    public static void displayMsg () {
        count++;                                              // line n1
    System.out.println ("Welcome "+"Visit Count: "+count); // line n2
    }
    public static void main (String [] args) {
        App.displayMsg ();                                   // line n3
        App.displayMsg ();                                   // line n4
    }
}
```

What is the result?

A. `Compilation fails at line n3 and line n4.`
B. `Compilation fails at line n1 and line n2.`
C. `Welcome Visit Count:1`
   `Welcome Visit Count: 1`
D. `Welcome Visit Count:1`
   `Welcome Visit Count: 2`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 64
Given the code fragment:

```
public class Person {
    String name;
    int age = 25;

    Person(String name) {                          // line n1
        setName(name);
    }

    public Person(String name, int age) {
        Person(name);                               // line n2
        setAge(age);
    }

    //setter and getter methods go here


    public String show() {
        return name + " " + age;
    }

    public static void main(String[] args) {
        Person p1 = new Person("Jesse");
        Person p2 = new Person("Walter",52);
        System.out.println(p1.show());
        System.out.println(p2.show());
    }
}
```

What is the result?

A. Compilation fails at both line n1 and line n2.
B. Compilation fails only at line n2.
C. Compilation fails only at line n1.
D. Jesse 25
Walter 52

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 65
Given the code fragment:

```
public static void main(String[] args) {
    ArrayList<Integer> points = new ArrayList<>();
    points.add(1);
    points.add(2);
    points.add(3);
    points.add(4);
    points.add(null);
    points.remove(1);
    points.remove(null);
    System.out.println(points);
}
```

What is the result?

A. A NullPointerException is thrown at runtime.
B. [1, 2, 4]
C. [1, 2, 4, null]
D. [1, 3, 4, null]
E. [1, 3, 4]
F. Compilation fails.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 66
Given:

```
class Test {
   public static void main (String [] args) {
        int numbers [ ];
        numbers = new int [2];
        numbers [0] = 10;
        numbers [1] = 20;

        numbers = new int [4];
        numbers [2] = 30;
        numbers [3] = 40;
        for (int x : numbers) {
            System.out.print (" " + x) ;
        }
   }
}
```

What is the result?

A. 10 20 30 40
B. 0 0 30 40
C. Compilation fails.
D. An exception is thrown at runtime.

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:

QUESTION 67
Given the code fragment:

```
public static void main(String[] args) {
    int[] stack = {10, 20, 30};
    int size = 3;
    int idx = 0;
    /* line n1 */
    System.out.print("The Top element: " + stack[idx]);
}
```

Which code fragment, inserted at line n1, prints The Top element: 30?

A.
```
do {
   idx++;
} while (idx >=size);
```

B.
```
while (idx < size) {
   idx++;
}
```

C.
```
do {
   idx++;
} while (idx <size -1);
```

D.
```
do {
   idx++;
} while (idx<= size);
```

E.
```
while (idx <= size -1) {
    idx++
}
```

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 68
Which two statements are true? (Choose two.)

A. Error class is unextendable.
B. Error class is extendable.
C. Error is a RuntimeException.
D. Error is an Exception.
E. Error is a Throwable.

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 69
Given the code fragment:

```
LocalDate Time dt= LocalDateTime.of (2014, 7, 31, 1, 1);
dt.plusDays (30);
dt. plusMonths (1);
System.out.print (dt format (DateTimeFormatter. ISO_DATE) );
```

What is the result?

A. An exception is thrown at runtime.
B. 07-31-2014
C. 2014-07-31
D. 2014-09-30

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 70
Given:

```
public class Test {
    public static final int MIN = 1;
    public static void main(String[] args) {
        int x = args.length;
        if(checkLimit(x)){      // line n1
            System.out.println("Java SE");
        } else {
            System.out.println("Java EE");
        }
    }
    public static boolean checkLimit(int x) {
        return (x >= MIN) ? true : false;
    }
}
```

And given the commands:

```
javac Test.java
java Test 1
```

What is the result?

A. Java SE
B. Java EE
C. Compilation fails at line n1.
D. A NullPointerException is thrown at runtime.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 71
Given:

```
public class Test {
      public static int stVar = 100;
      public int var = 200;
      public String toString() {
         return  stVar + ":" + var;
      }
}
```

And given the code fragment:

```
Test t1 = new Test();
t1.var = 300;
System.out.println(t1);
Test t2 = new Test();
t2.stVar = 300;
System.out.println(t2);
```

What is the result?

A. 300:300
200:300
B. 300:100
200:300
C. 300:0
0:300
D. 100:300
300:200

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 72
Given:

```
class C2 {
    public void displayC2() {
        System.out.print("C2");
    }
}
interface I {
    public void displayI();
}
class C1 extends C2 implements I {
    public void displayI() {
        System.out.print("C1");
    }
}
```

And given the code fragment:

```
C2 obj1 = new C1();
I obj2 = new C1();

C2 s = obj2;
I t = obj1;

t.displayI();
s.displayC2()
```

What is the result?

A. C2C2

B. C1C2
C. C1C1
D. Compilation fails

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 73
Given:

```
package clothing;
public class Shirt {
     public static String getColor() {
          return "Green";
     }
}
```

Given the code fragment:

```
package clothing.pants;
// line n1
public class Jeans {
    public void matchShirt(){
         // line n2
         if(color.equals("Green")) {
             System.out.print("Fit");
         }
    }
    public static void main(String[] args) {
        Jeans trouser = new Jeans();
        trouser.matchShirt();
    }
}
```

Which two sets of actions, independently, enable the code fragment to print `Fit`?

A. At line n1 insert: `import clothing.Shirt;`
   At line n2 insert: `String color = Shirt.getColor();`
B. At line n1 insert: `import clothing;`
   At line n2 insert: `String color = Shirt.getColor();`
C. At line n1 insert: `import static clothing.Shirt.getColor;`
   At line n2 insert: `String color = getColor();`
D. At line n1 no changes required.
   At line n2 insert: `String color = Shirt.getColor();`
E. At line n1 insert: `import Shirt;`
   At line n2 insert: `String color = Shirt.getColor();`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 74
Given the code fragments:

```
class Student {
      String name;
      int age;
}
```

And:

```
4.public class Test {
5.   public static void main(String[] args) {
6.        Student s1 = new Student();
7.        Student s2 = new Student();
8.        Student s3 = new Student();
9.        s1 = s3;
10.       s3 = s2;
11.       s2 = null;
12.  }
13.}
```

Which statement is true?

A. After line 11, three objects are eligible for garbage collection.
B. After line 11, two objects are eligible for garbage collection.
C. After line 11, one object is eligible for garbage collection.
D. After line 11, none of the objects are eligible for garbage collection.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 75
Given the code fragment:

```
public static void main(String[] args) {
      LocalDate date = LocalDate.of(2012, 01, 32);
      date.plusDays(10);
      System.out.println(date);
}
```

What is the result?

A. `2012-02-10`
B. `2012-02-11`
C. Compilation fails
D. A `DateTimeException` is thrown at runtime.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 76
Given the code fragment:

```
abstract class Toy {
      int price;
      // line n1
}
```

Which three code fragments are valid at line n1? (Choose three.)

A.
```
public static void insertToy() {
      /* code goes here */
}
```

B.
```
final Toy getToy() {
    return new Toy();
}
```
C.
```
public void printToy();
```
D.
```
public int calculatePrice() {
     return price;
}
```
E.
```
public abstract int computeDiscount();
```

Correct Answer: ADE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 77
Given:

```
public class Test {
      int x, y;

      public Test(int x, int y) {
            initialize(x, y);
      }

      public void initialize(int x, int y) {
            this.x = x * x;
            this.y = y * y;
      }

      public static void main(String[] args) {
            int x = 3, y = 5;
            Test obj = new Test(x, y);
            System.out.println(x + " " + y);
      }
}
```

What is the result?

A. Compilation fails.
B. 3 5
C. 0 0
D. 9 25

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 78

Given:

```
class Test
      int a1;

      public static void doProduct(int a) {
            a = a * a;
      )

      public static void doString(String s) {
            s.concat (" " + s);
      }

      public static void main(String[] args) {
            Test item = new Test();
            item.a1 = 11;
            String sb = "Hello";
            Integer i = 10;
            doProduct(i);
            doString(sb);
            doProduct(item.a1);
            System.out.println(i + " " + sb + " " + item.a1);
      }
}
```

What is the result?

A. `10 Hello Hello 11`
B. `10 Hello Hello 121`
C. `100 Hello 121`
D. `100 Hello Hello 121`

E. `10 Hello 11`

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 79
Given the code fragment:

```
public static void main (String[] args) {
      String[] arr = ("Hi", "How", "Are", "You");
      List<String> arrList = new ArrayList<>(Arrays.asList(arr);
      if (arrList.removeIf((String s) -> (return s.length() <= 2;))) {
            System.out.println(s + "removed")'
      }
}
```

What is the result?

A. Compilation fails.
B. Hi removed
C. An UnsupportedOperationException is thrown at runtime.
D. The program compiles, but it prints nothing.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 80
Given:

```
class Student {
      String name;
      public Student(String name) {
            this.name = name;
      }
}

public class Test {
      public static void main(String[] args) {
            Student[] students = new Student[3];
            students[1] = new Student("Richard");
            students[2] = new Student("Donald");
            for (Student s : students) {
                  System.out.println("" + s.name);
            }
      }
}
```

What is the result?

A. `null`
   `Richard`
   `Donald`
B. `Richard`
   `Donald`
C. Compilation fails.
D. An `ArrayIndexOutOfBoundsException` is thrown at runtime.
E. A `NullPointerException` is thrown at runtime.

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 81
This grid shows the state of a 2D array:

0	0	
	X	0
X		X

The grid is created with this code:

```
char[][] grid = new char[3][3];
grid[1][1] = 'X';
grid[0][0] = '0';
grid[2][0] = 'X';
grid[0][1] = '0';
grid[2][2] = 'X';
grid[1][2] = '0';
//line n1
```

Which line of code, when inserted in place of //line n1, adds an X into the grid so that the grid contains three consecutive XS?

A. grid[2][1] = 'X';
B. grid[3][2] = 'X';
C. grid[3][1] = 'X';
D. grid[2][3] = 'X';

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 82
Given:

MainTest.java:

```
public class MainTest {

    public static void main(String[] args) {
        System.out.println("String main " + args[0]);
    }
}
```

and commands:

```
javac MainTest.java
java MainTest "1 2 3"
```

What is the result?

A. `String main 1`
B. An exception is thrown at runtime
C. `String main 1 2 3`
D. `String main 123`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 83
Which two statements are true about Java byte code? (Choose two.)

A. It can be serialized across network.
B. It can run on any platform that has a Java compiler.
C. It can run on any platform.
D. It has ".java" extension.
E. It can run on any platform that has the Java Runtime Environment.

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 84
Which is true about the `switch` statement?

A. Its expression can evaluate to a collection of values.
B. The `break` statement, at the end of each case block, is optional.
C. Its `case` label literals can be changed at runtime.
D. It must contain the `default` section.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.geeksforgeeks.org/switch-statement-in-java/

QUESTION 85
Given this segment of code:

```
ArrayList<Cycle> myList = new ArrayList<>();
myList.add(new MotorCycle());
```

Which two statements, if either were true, would make the code compile? (Choose two.)

A. `MotorCycle` is an interface that implements the `Cycle` class.
B. `Cycle` is an interface that is implemented by the `MotorCycle` class.
C. `Cycle` is an abstract superclass of `MotorCycle`.
D. `Cycle` and `MotorCycle` both extend the `Transportation` superclass.
E. `Cycle` and `MotorCycle` both implement the `Transportation` interface.
F. `MotorCycle` is a superclass of Cycle.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 86
Given:

```
class Vehicle {
    int x;
    Vehicle(){
        this(10);  // line n1
    }
    Vehicle(int x) {
        this.x = x;
    }
}

class Car extends Vehicle {
    int y;
    Car() {
        super(10);   // line n2
    }
    Car(int y) {
       super(y);
       this.y = y;
    }
    public String toString() {
        return super.x + ":" + this.y;
    }
}
```

And given the code fragment:

```
Vehicle y = new Car(20);
System.out.println(y);
```

What is the result?

A. Compilation fails at `line n2`.
B. Compilation fails at `line n1`.
C. `20:20`
D. `10:20`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 87
Given the code fragment:

```
public static void main(String[] args) {
    LocalDate date = LocalDate.of(2012, 1, 30);
    date.plusDays(10);
    System.out.println(date);
}
```

What is the result?

A. `2012-02-10 00:00`
B. `2012-01-30`
C. `2012-02-10`
D. A `DateTimeException` is thrown at runtime.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 88
Given the code snippet from a compiled Java source file:

```
public class MyFile
{
    public static void main (String[] args)
    {
        String arg1 = args[0];
        String arg2 = args[1];
        String arg3 = args[2];
        System.out.println("Arg is " + arg3);
    }
}
```

and this output:

```
Arg is 2
```

Which command should you run to obtain this output?

A. `java MyFile  2`
B. `java MyFile  1 2 3 4`
C. `java MyFile  1 2 2`
D. `java MyFile  2 2`

Correct Answer: C

Section: (none)
Explanation

Explanation/Reference:

QUESTION 89
Given the code fragment:

```
int wd = 0;
String days[] = {"sun", "mon", "wed", "sat"};
for (String s:days) {
    switch (s) {
        case "sat":
        case "sun":
            wd -= 1;
            break;
        case "mon":
            wd -= 1;
            break;
        case "wed":
            wd += 2;
    }
}
System.out.println(wd);
```

What is the result?

A. 3
B. 0
C. Compilation fails.
D. -1

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 90
Given the code fragment:

```
String[] arr = {"Hi", "How", "Are", "You"};
List<String> arrList = new ArrayList<>(Arrays.asList(arr));
if(arrList.removeIf(s -> { System.out.print(s); return s.length()<=2;} )){
System.out.println(" removed");
}
```

What is the result?

A. Compilation fails.
B. The program compiles, but it prints nothing.
C. `HiHowAreYou removed`
D. An `UnsupportedOperationException` is thrown at runtime.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 91
Given the code fragment:

```
String[] strs = {"A", "B"};
int idx = 0;
for (String s : strs) {
        strs[idx].concat(" element " + idx);
        idx++;
}
for (idx = 0; idx < strs.length; idx++) {
        System.out.println(strs[idx]);
}
```

What is the result?

A. A
B

B. A element 0
B element 1

C. A `NullPointerException` is thrown at runtime.

D. A 0
B 1

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 92
Given the code fragment:

```
public static void main(String[] args) {
    String names[] = {"Thomas", "Peter", "Joseph"};
    String pwd[] = new String[3];
    int idx = 0;
    try {
        for (String n : names) {
            pwd[idx] = n.substring(2, 6);
            System.out.println(pwd[idx]);
            idx++;
        }
    }
    catch(Exception e) {
        System.out.println("Invalid Name");
    }
}
```

What is the result?

A.
```
omas
Invalid Name
null
```

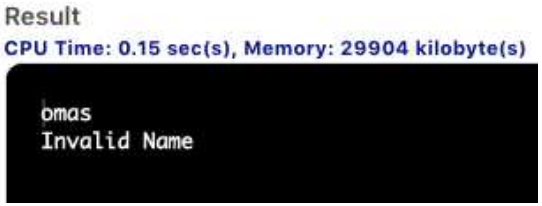
B.
```
omas
ter
seph
```

C. `Invalid Name`

D.
```
omas
Invalid Name
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:



QUESTION 93
Which three statements are true about the structure of a Java class? (Choose three.)

A. A class cannot have the same name as its field.
B. A public class must have a `main` method.
C. A class can have final static methods.
D. A class can have overloaded private constructors.
E. Fields need to be initialized before use.
F. Methods and fields are optional components of a class.

Correct Answer: BDE
Section: (none)

Explanation

Explanation/Reference:

QUESTION 94
Given the code fragment:

```
1. abstract class Planet {
2.     protected void revolve() {
3.     }
4.     abstract void rotate();
5. }
6.
7. class Earth extends Planet {
8.     private void revolve() {
9.     }
10.    private void rotate() {
11.    }
12. }
```

Which two modifications enable the code to compile?

A. Make the method at line 8 `protected`.
B. Make the method at line 8 `public`.
C. Make the method at line 10 `protected`.
D. Make the method at line 4 `public`.
E. Make the method at line 2 `public`.

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 95
Given:

```
public class App {
    int count;
    public static void displayMsg() {
        System.out.println("Welcome Visit Count: " + count++);    // line n1
    }
    public static void main(String[] args) {
        App.displayMsg();
        displayMsg();                                            // line n2
    }
}
```

What is the result?

A. `Welcome Visit Count:0`
   `Welcome Visit Count: 1`
B. Compilation fails at `line n2`.
C. Compilation fails at `line n1`.
D. `Welcome Visit Count:0`
   `Welcome Visit Count: 0`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
1
2  public class App {
3    int count;
4    public static void displayMsg() {
5      System.out.println("Welcome Visit Count: " + count ++); //line n1
6    }
7    public static void main(String[] args) {
8      App.displayMsg();
9      displayMsg();
10   }
11 }
12
```

QUESTION 96
Given:

```
interface I {
    public void displayI();
}
abstract class C2 implements I {
    public void displayC2() {
        System.out.print("C2");
    }
}
class C1 extends C2  {
    public void displayI() {
        System.out.print("C1");
    }
}
```

And the code fragment:

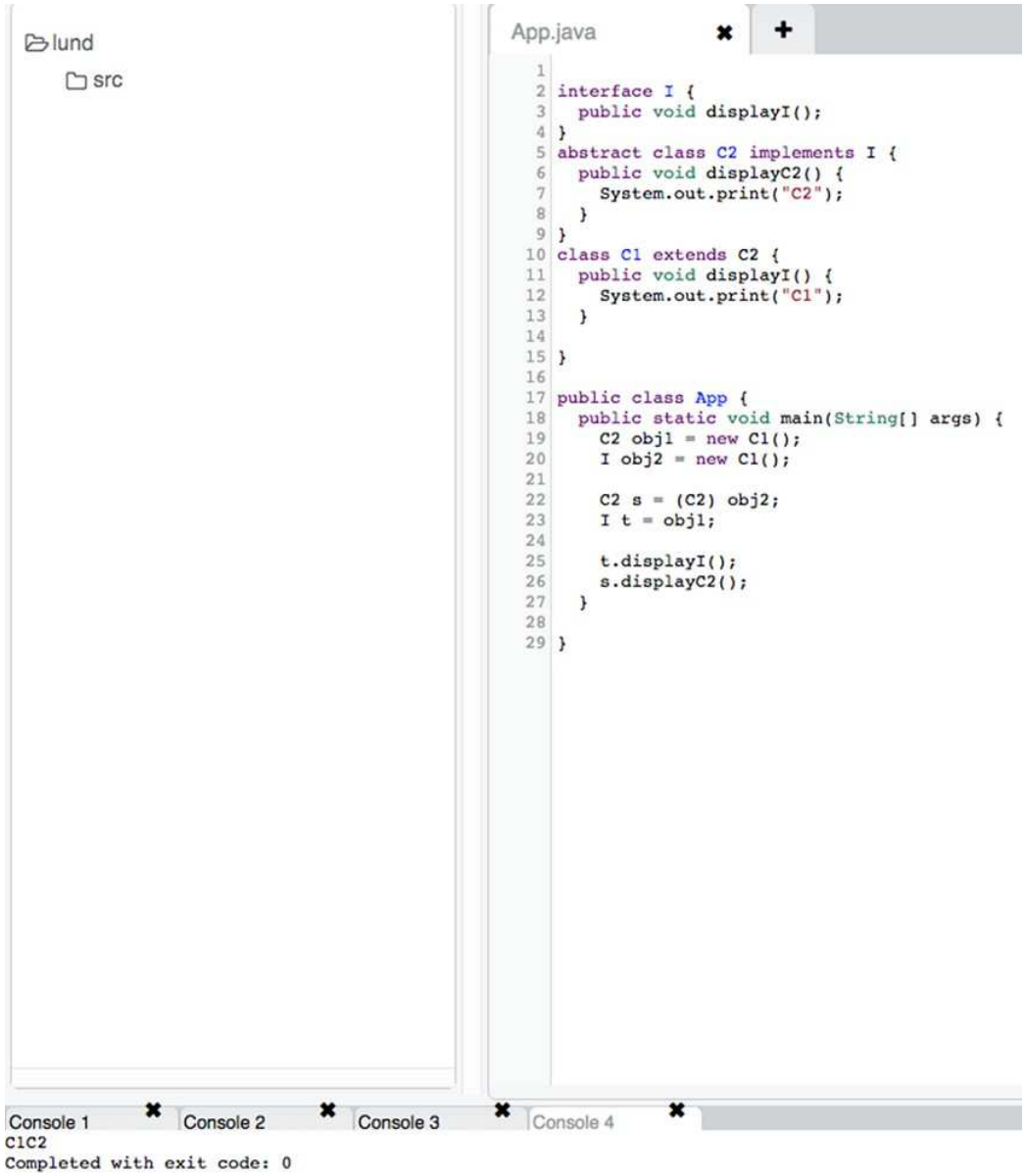
```
C2 obj1 = new C1();
I obj2 = new C1();

C2 s = (C2) obj2;
I t = obj1;

t.displayI();
s.displayC2();
```

What is the result?

A. `C1C2`
B. `C1C1`
C. Compilation fails.
D. `C2C2`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:



QUESTION 97

Given:

```
class X {
    int i;
    static int j;
    public static void main(String[] args) {
        X x1 = new X();
        X x2 = new X();
        x1.i = 3;
        x1.j = 4;
        x2.i = 5;
        x2.j = 6;
        System.out.println(
            x1.i + " " +
            x1.j + " " +
            x2.i + " " +
            x2.j);
    }
}
```

What is the result?

A. 3 4 5 6
B. 3 4 3 6
C. 5 4 5 6
D. 3 6 5 6

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
3 6 5 6

Completed with exit code: 0
```

QUESTION 98
Given the code fragment:

```
int[] array = {1, 2, 3, 4, 5};
```

And given the requirements:
1. Process all the elements of the array in the reverse order of entry.
2. Process all the elements of the array in the order of entry.
3. Process alternating elements of the array in the order of entry.

Which two statements are true? (Choose two.)

A. Requirements 1, 2, and 3 can be implemented by using the enhanced for loop.
B. Requirements 1, 2, and 3 can be implemented by using the standard for loop.
C. Requirements 2 and 3 CANNOT be implemented by using the standard for loop.
D. Requirement 2 can be implemented by using the enhanced for loop.
E. Requirement 3 CANNOT be implemented by using either the enhanced for loop or the standard for loop.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 99
Given:

```
public class FieldInit {
    Character c;
    boolean b;
    float f;
    void printAll() {
        System.out.println("c = " + c);
        System.out.println("b = " + b);
        System.out.println("f = " + f);
    }

    public static void main(String[] args) {
        FieldInit f = new FieldInit();
        f.printAll();
    }
}
```

What is the result?

A.
```
c =
b = false
f = 0.0
```

B.
```
c = null
b = true
f = 0.0
```

C.
```
c = 0
b = false
f = 0.0F
```

D.
```
c = null
b = false
f = 0.0
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
c = null
b = false
f = 0.0

Completed with exit code: 0
```

QUESTION 100
Given the code fragment:

```
3. public static void main(String[] args) {
4.       int x = 6;
5.       while (isAvailable(x)) {
6.           System.out.print(x);
7.
8.       }
9. }
10.
11. public static boolean isAvailable(int x) {
12.     return --x > 0 ? true : false;
13. }
```

Which modification enables the code to print 54321?

A. Replace line 6 with `System.out.print (--x);`
B. At line 7, insert `x --;`
C. Replace line 5 with `while (is Available(--x)) {`
D. Replace line 12 with `return (x > 0) ? false : true;`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 101
Given:

```
class A {
    public void test() {
        System.out.println("A ");
    }
}

class B extends A {
    public void test() {
        System.out.println("B ");
    }
}

public class C extends A {
    public void test() {
        System.out.println("C ");
    }

    public static void main(String[] args) {
        A b1 = new A();
        A b2 = new C();
        A b3 = (B) b2;            //line n1
        b1 = (A) b2;              //line n2
        b1.test();
        b3.test();
    }
}
```

What is the result?

A. A
B
B. A
C
C. C
C
D. A `ClassCastException` is thrown only at `line n1`.
E. A `ClassCastException` is thrown only at `line n2`.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 102
Given the code fragment:

```
public static void main(String[] args) {
    int ans;
    try {
        int num = 10;
        int div = 0;
        ans = num / div;
    } catch (ArithmeticException ae) {
        ans = 0;                                    // line n1
    } catch (Exception e) {
        System.out.println("Invalid calculation");
    }
    System.out.println("Answer = " + ans);    // line n2
}
```

What is the result?

A. `Answer = 0`
B. `Invalid calculation`
C. Compilation fails only at `line n1`.
D. Compilation fails only at `line n2`.
E. Compilation fails at `line n1` and `line2`.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
1
2  public class Test {
3    public static void main(String[] args) {
4      int ans;
5      try {
6        int num = 10;
7        int div = 0;
8        ans = num / div;
9      } catch (ArithmeticException ae) {
10       ans = 0;
11     } catch (Exception e) {
12       System.out.println("Invalid calculation");
variable ans might not have been initialized
14     System.out.println("Answer = " + ans);  //line n2
15   }
16 }
```

QUESTION 103
Given the code fragments:

```
class Student {
      String name;
      int age;
}
```

And:

```
4.public class Test {
5.   public static void main(String[] args) {
6.        Student s1 = new Student();
7.        Student s2 = new Student();
8.        Student s3 = new Student();
9.        s1 = s3;
10.       s3 = s2;
11.       s1 = s2;
12.  }
13.}
```

Which statement is true?

A. After line 11, three objects are eligible for garbage collection.
B. After line 11, two objects are eligible for garbage collection.
C. After line 11, one object is eligible for garbage collection.
D. After line 11, none of the objects are eligible for garbage collection.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Result

CPU Time: sec(s), Memory: kilobyte(s)

```
/Test.java:3: error: cannot find symbol
        Student s1 = new Student() ;
        ^
  symbol:   class Student
  location: class Test
/Test.java:3: error: cannot find symbol
        Student s1 = new Student() ;
                     ^
  symbol:   class Student
  location: class Test
/Test.java:4: error: cannot find symbol
        Student s2 = new Student() ;
        ^
  symbol:   class Student
  location: class Test
/Test.java:4: error: cannot find symbol
        Student s2 = new Student() ;
                     ^
  symbol:   class Student
  location: class Test
/Test.java:5: error: cannot find symbol
        Student s3 = new Student() ;
        ^
  symbol:   class Student
  location: class Test
/Test.java:5: error: cannot find symbol
        Student s3 = new Student() ;
                     ^
  symbol:   class Student
  location: class Test
6 errors
```

QUESTION 104
Given the code fragment:

```
10. public static void main(String[] args {
11.     List<String> lst = Arrays.asList("A", "B", "C", "D");
12.     Iterator<String> itr = lst.iterator();
13.     while(itr.hasNext()) {
14.         String e = itr.next();
15.         if (e == "C") {
16.             break;
17.         }
18.         else {
19              continue;
20.             System.out.print(e);
21.         }
22.     }
23. }
```

Which action enables it to print AB?

A. Comment lines 18 to 21.
B. Comment line 20.
C. Comment line 19.
D. Comment line 16.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 105
Given the definitions of the `Bird` class and the `Peacock` class:

```
public class Bird {
    public void fly() {
        System.out.print ("Fly.");
    }
}

public class Peacock extends Bird {
    public void dance() {
        System.out.print("Dance.");
    }
}
```

and the code fragment:

```
/*insert code snippet here */
p.fly();
p.dance();
```

Which code snippet can be inserted to print Fly.Dance. ?

A. `Bird p = new Peacock();`

B.
```
Bird b = new Bird();
Peacock p = (Peacock) b;
```

C.
```
Peacock b = new Peacock ();
Bird p = (Bird) b;
```

D.
```
Bird b = new Peacock ();
Peacock p = (Peacock) b;
```

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 106
Given the code fragment:

```
public class Test {
    public static void main(String[] args) {
        int x;
        /* insert code here */
    }
}
```

Which two code fragments inserted at line 10 print ****?

A.
```
x = 3;
do {
    System.out.print("*");
    x--;
} while (x >= 0);
```

B.
```
x = 0;
do {
    System.out.print("*");
    x++;
} while (x >= 3);
```

C.
```
x = 0;
do {
    System.out.print("*");
    ++x;
}while (x > 3);
```

D.
```
x = 3;
do {
    System.out.print("*");
    x--;
}while (x != 1);
```

E.
```
x = 0;
do {
    System.out.print("*");
} while (x++ < 3);
```

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
1  public class Test {
2     public static void main (String[] args) {
3        int x;
4        x = 0;
5        do {
6           System.out.print("*");
7
8        } while (x++ < 3);
9     }
10 }
```

QUESTION 107
Given the code fragment:

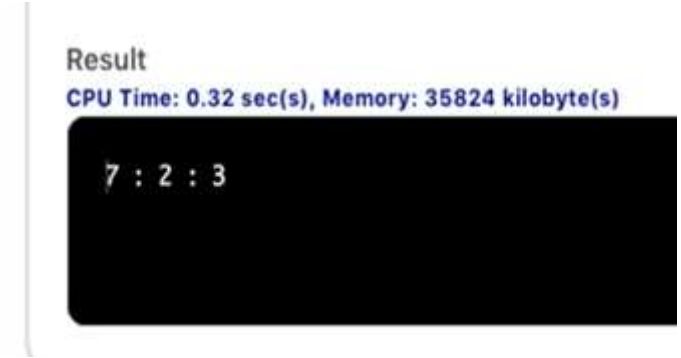
```
int a = 3;
int b = 2;
int c = 1;
int r1 = a * b / c + 1;
int r2 = a / b * c + 1;
int r3 = a * (b / (c + 1));
System.out.println(r1 + " : " + r2 + " : " + r3);
```

What is the result?

A. `2 : 7 : 3`
B. `7 : 7 : 9`
C. `2 : 7 : 0`
D. `7 : 2 : 3`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:



QUESTION 108
Given the code fragment:

```
int array1[] = {1, 2, 3};
int array2[] = new int [5];
array2 = array1;
for (int i : array2) {
     System.out.print(i + " ");
}
System.out.println();
int array3[] = new int[3];
array3 = array2;
for (int i : array3) {
     System.out.print(i + " ");
}
```

What is the result?

A. `1 2 3 0 0`
   `1 2 3 0 0`

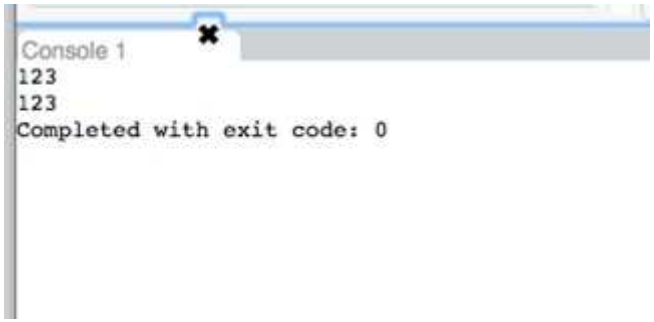
B. An `Exception` is thrown at run time.

C. `1 2 3 0 0`
   `1 2 3`

D. `1 2 3`
   `1 2 3`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:



QUESTION 109
Examine:

```
class E1 extends Exception { }

class E2 extends RuntimeException { }

public class App {
     public void m1() {
          System.out.println("m1.Accessed.");
          throw new E1();
     }

     public void m2 () {
          System.out.println("m2.Accessed.");
          throw new E2();
     }
     public static void main (String[] args) {
          int level =1;
          App obj = new App();
          if (level <=5 && level >= 3) {
               obj.m1();
          } else {
               obj.m2();
          }
     }
}
```

Which statement is true?

A. The program prints `m1.Accessed`.
B. The program fails compile due to the unhandled `E1` exception.
C. The program prints `m2.Accessed`.
D. The program fails to compile due to the unhandled `E2` exception.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
4  public class App  {
5    public void m1() {
6      System.out.println("m1.Accessed.");
7      throw new E1();
8    }
9
10   public void m2 () {
11     System.out.println("m2.Accessed.");
12     throw new E2 ();
13   }
14
15   public static void main (String[] args) {
16     int level =1;
17     App obj = new App();
18     if (level <=5 && level >= 3) {
19       obj.m1();
20
21     } else {
22       obj.m2();
23     }
24   }
25 }
26
```

QUESTION 110
Given the code fragment:

```
6. char colorCode = 'y';
7. switch (colorCode) {
8.   case 'r':
9.        int color = 100;
10.       break;
11.  case 'b':
12        color = 10;
13.       break;
14.  case 'y':
15.       color = 1;
16.       break;
17. }
18. System.out.println(color);
```

What is the result?

A. It results in a compile time error at line 18.
B. It results in a compile time error at line 9.
C. It prints : 1
D. It results in a compile time error at lines at lines 12 and 15.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

```
class colorCode {
  public static void main(String[] args) {

    char colorCode = 'y';
    switch (colorCode) {
      case 'r':
        int color = 100;
        break;
      case 'b':
        color = 10;
        break;
      case 'y':
        color = 1;
        break;
    }
    System.out.println(color);
  }
}
```

QUESTION 111
Given:

```
class Alpha {
     int ns;
     static int s;
     Alpha (int ns) {
           if (s <ns) {
               s = ns;
               this.ns = ns;
           }

     }
     void doPrint () {
          System.out.println("ns= " + ns + " s = " + s);
     }
}
```

And:

```
public class TestA {
     public static static void main(String[] args) {
          Alpha ref1 = new Alpha (100);
          Alpha ref2 = new Alpha (50);
          Alpha ref3 = new Alpha (125);
          ref1.doPrint();
          ref2.doPrint();
          ref3.doPrint();
     }
}
```

What is the result?

A. ns = 100 s =125
   ns = 0 s = 125
   ns = 125 s = 125
B. ns = 50 s = 50
   ns = 125 s = 125
   ns = 0 s = 125
C. ns = 50 s = 125
   ns = 125 s = 125
   ns = 0 s = 125
D. ns = 50 s = 50
   ns = 125 s =125
   ns = 100 s =100

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference: