Exam Questions 1Z0-819

Java SE 11 Developer

[redacted]

NEW QUESTION 1
Assuming the Widget class has a getPrice method, this code does not compile:

```
List widgets = List.of(new Widget("Basic Widget", 19.55), // line 1
                       new Widget("Enhanced Widget", 35.00),
                       new Widget("Luxury Edition Widget", 55.45));
Stream widgetStream = widgets.stream();                    // line 4
widgetStream.filter(a -> a.getPrice() > 20.00)             // line 5
            .forEach(System.out::println);
```

Which two statements, independently, would allow this code to compile? (Choose two.)

A. Replace line 5 with widgetStream.filter(a > ((Widget)a).getPrice() > 20.00).
B. Replace line 1 with List<Widget> widgetStream = widgets.stream();.
C. Replace line 5 with widgetStream.filter((Widget a) > a.getPrice() > 20.00).
D. Replace line 4 with Stream<Widget> widgetStream = widgets.stream();.

Answer: AD

NEW QUESTION 2
Given:

```
public class Tester {
   public static void main(String[] args) {
      char letter = 'b';
      int i = 0;
      switch(letter) {
         case 'a':
            i++;
            break;
         case 'b':
            i++;
         case 'c' | 'd': // line 1
            i++;
         case 'e':
            i++;
            break;
         case 'f':
            i++;
            break;
         default:
            System.out.print(letter);
      }
      System.out.println(i);
   }
}
```

What is the result?

A. b1
B. 2
C. b2
D. 1
E. b3
F. 3
G. The compilation fails due to an error in line 1.

Answer: F

Explanation:

NEW QUESTION 3
Given:

```
public static void main(String[] args) {
    final List<String> fruits =
       List.of("Orange", "Apple", "Lemmon", "Raspberry");
    final List<String> types =
       List.of("Juice", "Pie", "Ice", "Tart");
    final var stream =
       IntStream.range(0, Math.min(fruits.size(), types.size()))
           .mapToObj((i) -> fruits.get(i) + " " + types.get(i) );
    stream. forEach(System.out::println);
}
```

What is the result?

A. Orange Juice
B. The compilation fails.
C. Orange Juice Apple Pie Lemmon Ice Raspberry Tart
D. The program prints nothing.

Answer: C

Explanation:

```
12 public class Person {
13     public static void main (String[] args) {
14         final List<String> fruits =
15         List.of("Orange", "Apple", "Lemmon", "raspberry");
16         final List<String> types =
17         List.of("Juice", "Pie", "Ice", "Tart");
18         final var stream =
19         IntStream.range(0, Math.min(fruits.size(), types.size()))
20         .mapToObj ((i) -> fruits.get(i) + " " + types.get(i) );
21         stream. forEach(System.out::println);
22     }
23
24 }
```

Result

compiled and executed in 1.227 sec(s)

```
Orange Juice
Apple Pie
Lemmon Ice
raspberry Tart
```

NEW QUESTION 4
Examine this excerpt from the declaration of the java.se module:

```
module java.se {
   ...
   requires transitive java.sql;
   ...
}
```

What does the transitive modifier mean?

A. Only a module that requires the java.se module is permitted to require the java.sql module.
B. Any module that requires the java.se module does not need to require the java.sql module.
C. Any module that attempts to require the java.se module actually requires the java.sql module instead.
D. Any module that requires the java.sql module does not need to require the java.se module.

Answer: A

NEW QUESTION 5
Which two statements set the default locale used for formatting numbers, currency, and percentages? (Choose two.)

A. Locale.setDefault(Locale.Category.FORMAT, “zh-CN”);
B. Locale.setDefault(Locale.Category.FORMAT, Locale.CANADA_FRENCH);
C. Locale.setDefault(Locale.SIMPLIFIED_CHINESE);
D. Locale.setDefault(“en_CA”);
E. Locale.setDefault(“es”, Locale.US);

Answer: BD

NEW QUESTION 6
Given:

```
public class Main {
   public static void main(String[] args) {
      try(BufferedReader in = new BufferedReader(new InputStreamReader(System.in))) {
         System.out.print("Input: ");
         String input = in.readLine();
         System.out.println("Echo: " + input);
      } catch (IOException e) {
         e.printStackTrace();
      }
   }
}
```

And the command: java Main Helloworld What is the result ?

A. Input: Echo:
B. Input: Helloworld Echo: Helloworld
C. Input:Then block until any input comes from System.in.
D. Input:Echo: Helloworld
E. A NullPointerException is thrown at run time.

Answer: C

Explanation:

NEW QUESTION 7
Given:

```
public class Main {
   class Student {                          // line 1
      String classname;
      Student(String classname) {           // line 2
         this.classname = classname;
      }
   }
   public static void main(String[] args) {
      var student = new Student("Biology"); // line 3
   }
}
```

Which two independent changes will make the Main class compile? (Choose two.)

A. Move the entire Student class declaration to a separate Java file, Student.java.
B. Change line 2 to public Student(String classname).
C. Change line 1 to public class Student {.
D. Change line 3 to Student student = new Student("Biology");.
E. Change line 1 to static class Student {.

Answer: BD

Explanation:

```
1  import java.util.*;
2  import java.io.*;
3  import java.lang.Thread;
4  import java.util.ArrayList;
5  import java.util.LinkedList;
6  import java.util.List;
7  import java.util.function.Consumer;
8  import java.util.stream.Stream;
9  import java.util.stream.IntStream;
10 import java.util.Optional;
11
12
13 public class Main {
14     class Student {
15         String classname;
16         public Student (String classname) {
17             this.classname = classname;
18         }
19
20             }
21         public static void main (String[] args) {
22             var student = new Student ("Biology");
23         }
24 }
```

NEW QUESTION 8
Given the formula to calculate a monthly mortgage payment:

$$M = P\frac{r(1+r)^n}{(1+r)^n-1}$$

and these declarations:

```
double m;              //monthly payment
double r = 0.05/12;    //monthly interest rate
int p = 100_000;       //principal
int n = 180;           //number of payments
```

How can you code the formula?

A. m = p * (r * Math.pow(1 + r, n) / (Math.pow(1 + r, n) - 1));
B. m = p * ((r * Math.pow(1 + r, n) / (Math.pow(1 + r, n)) - 1));
C. m = p * r * Math.pow(1 + r, n) / Math.pow(1 + r, n) - 1;
D. m = p * (r * Math.pow(1 + r, n) / Math.pow(1 + r, n) - 1);

Answer: A

NEW QUESTION 9
Given:

```
public class Main {

  public static void checkConfiguration(String filename) {
    File file = new File(filename);
    if(!file.exists()) {
      throw new Error("Fatal Error: Configuration File, "
            + filename + ", is missing.");
    }
  }

  public static void main(String[] args) {
    checkConfiguration("App.config");
    System.out.println("Configuration is OK");
  }
}
```

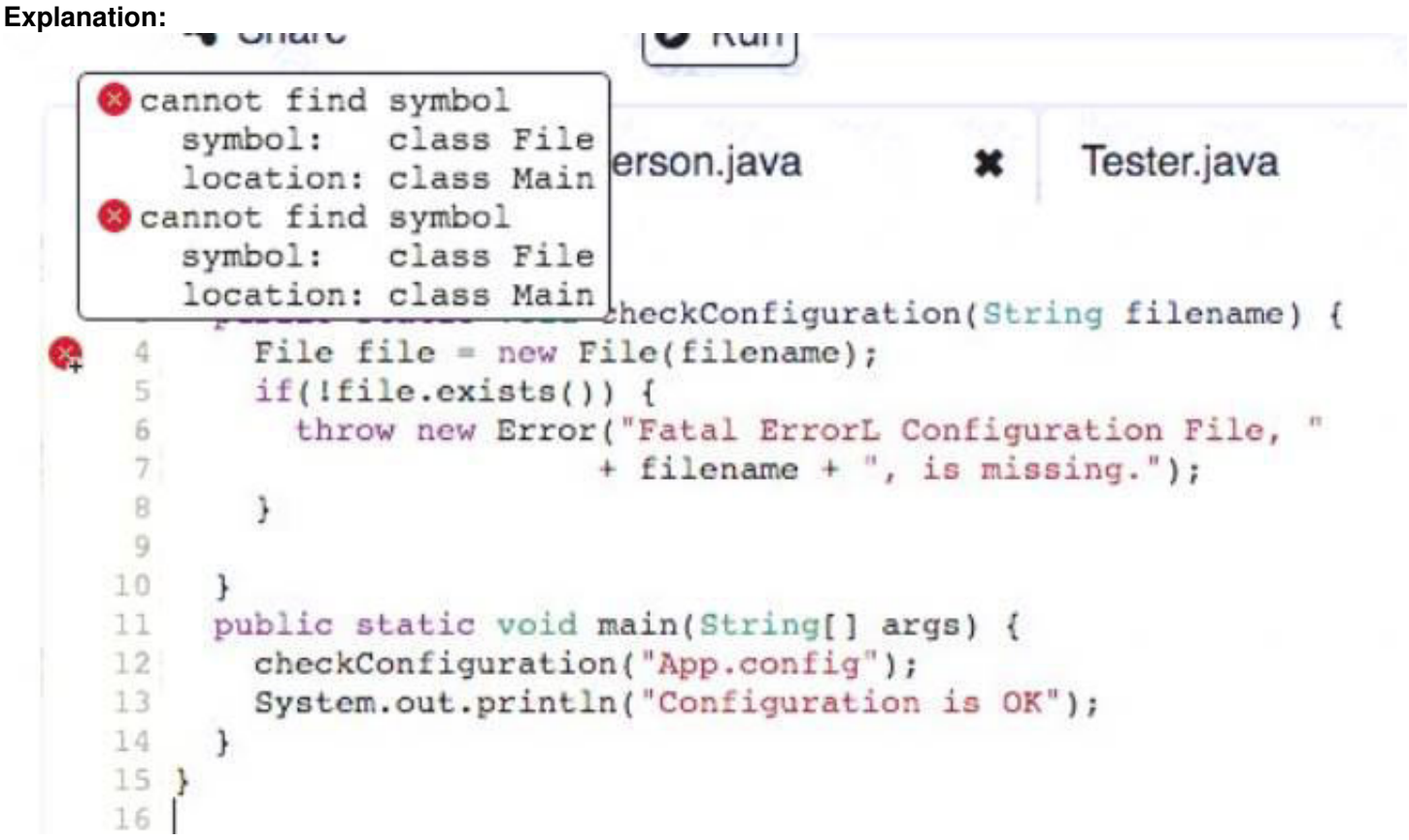
If file "App.config" is not found, what is the result?

A. Configuration is OK
B. The compilation fails.
C. Exception in thread "main" java.lang.Error:Fatal Error: Configuration File, App.config, is missing.

D. nothing

Answer: B

Explanation:



NEW QUESTION 10
Given:

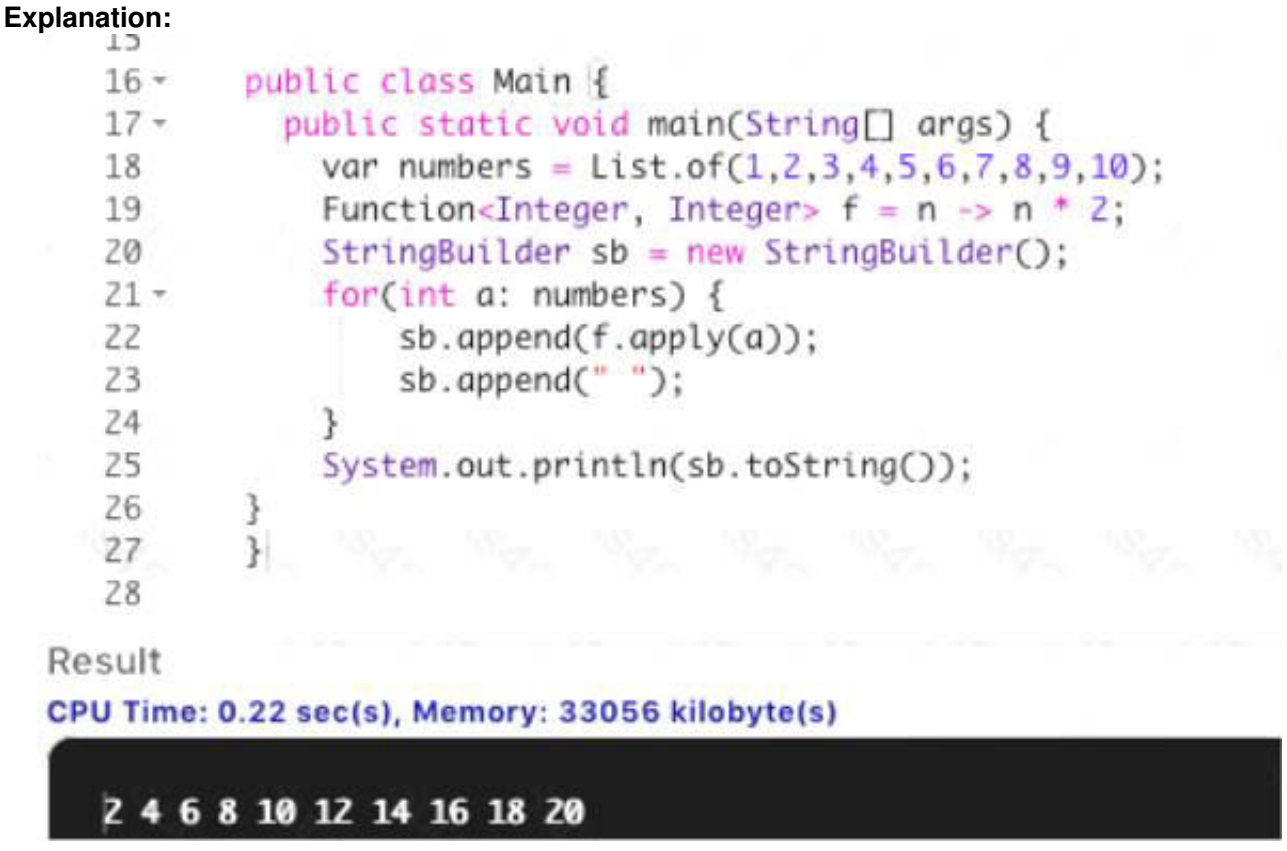
```
var numbers = List.of(1,2,3,4,5,6,7,8,9,10);
// line 1
StringBuilder sb = new StringBuilder();
for(int a: numbers) {
   sb.append(f.apply(a));
   sb.append(" ");
}
System.out.println(sb.toString());
```

Which statement on line 1 enables this code to compile?

A. Function<Integer, Integer> f = n > n * 2;
B. Function<Integer> f = n > n * 2;
C. Function<int> f = n > n * 2;
D. Function<int, int> f = n > n * 2;
E. Function f = n > n * 2;

Answer: A

Explanation:



NEW QUESTION 10
Given:

```
public class Test{
    private int num = 1;
    private int div = 0;

    public void divide() {
        try {
            num = num / div;
            System.out.print("Exception");
        }
        catch(ArithmeticException ae) { num = 100; }
        catch(Exception e) { num = 200; }
        finally { num = 300; }
        System.out.print(num);
    }
    public static void main(String args[])
    {
        Test test = new Test();
        test.divide();
    }
}
```

What is the output?

A. 300
B. Exception
C. 200
D. 100

Answer: A

Explanation:

```
1  public class Test{
2      private int num = 1;
3      private int div = 0;
4
5      public void divide() {
6          try {
7              num = num / div;
8              System.out.print("Exception");
9          }
10         catch(ArithmeticException ae) { num = 100; }
11         catch(Exception e) { num = 200; }
12         finally { num = 300; }
13         System.out.print(num);
14     }
15     public static void main(String args[])
16     {
17         Test test = new Test();
18         test.divide();
19     }
20 }
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

CommandLine Arguments

Result

CPU Time: 0.15 sec(s), Memory: 32484 kilobyte(s)

```
300
```

NEW QUESTION 11
Given:

```
class ConSuper {
    protected ConSuper(){
        this(2);
        System.out.print("1");
    }
    protected ConSuper(int a){
        System.out.print(a);
    }
}
```

and

```
public class ConSub extends ConSuper{
    ConSub(){
        this(4);
        System.out.print("3");
    }
    ConSub(int a) {
        System.out.print(a);
    }
    public static void main (String[] args){
        new ConSub(4);
    }
}
```

What is the result?

A. 2134
B. 2143
C. 214
D. 234

Answer: C

Explanation:

Console 1

```
214
Completed with exit code: 0
```

NEW QUESTION 13
Given:

```
public class X {
  private Collection collection;
  public void set(Collection collection) {
    this.collection = collection;
  }
}
```

and

```
public class Y extends X {
  public void set(Map<String,String> map) {
    super.set(map); // line 1
  }
}
```

Which two lines can replace line 1 so that the Y class compiles? (Choose two.)

A. map.forEach((k, v) -> set(v)));
B. set(map.values());
C. super.set(List<String> map)
D. super.set(map.values());
E. set(map)

Answer: BD

NEW QUESTION 17
Which is the correct order of possible statements in the structure of a Java class file?

A. class, package, import
B. package, import, class
C. import, package, class
D. package, class, import
E. import, class, package

Answer: B

NEW QUESTION 18
A company has an existing sales application using a Java 8 jar file containing packages: com.company.customer; com.company.customer.orders; com.company.customer.info; com.company.sales; com.company.sales.leads; com.company.sales.closed; com.company.orders; com.company.orders.pending; com.company.orders.shipped.
To modularize this jar file into three modules, customer, sales, and orders, which module-info.java would be correct?
A)

```
module com.company.customer {
   opens com.company.customer;
}
module com.company.sales{
   opens com.company.sales;
}
module com.company.orders {
   opens com.company.orders;
}
```

B)

```
module com.company.customer {
   exports com.company.customer;
}
module com.company.sales{
   exports com.company.sales;
}
module com.company.orders{
   exports com.company.orders;
}
```

C)

```
module com.company.customer {
   requires com.company.customer;
}
module com.company.sales{
   requires com.company.sales;
}
module com.company.orders {
   requires com.company.orders;
}
```

D)

```
module com.company.customer {
   provides com.company.customer;
}
module com.company.sales{
   provides com.company.sales;
}
module com.company.orders {
   provides com.company.orders;
}
```

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

Answer: C

NEW QUESTION 20
Given the code fragment:

```
int[] secA = { 2, 4, 6, 8, 10 };
int[] secB = { 2, 4, 8, 6, 10 };
int res1 = Arrays.mismatch(secA, secB);
int res2 = Arrays.compare(secA, secB);
System.out.print(res1 + " : " + res2);
```

What is the result?

A. -1 : 2
B. 2 : -1
C. 2 : 3
D. 3 : 0

Answer: B

NEW QUESTION 22
Examine these module declarations:

```
module ServiceAPI {
    exports com.example.api;
}

module ServiceProvider {
    requires ServiceAPI;
    provides com.example.api with com.myimpl.Impl;
}

module Consumer {
    requires ServiceAPI;
    uses com.example.api;
}
```

Which two statements are correct? (Choose two.)

A. The ServiceProvider module is the only module that, at run time, can provide the com.example.api API.
B. The placement of the com.example.api API in a separate module, ServiceAPI, makes it easy to install multiple provider modules.
C. The Consumer module should require the ServiceProvider module.
D. The ServiceProvider module should export the com.myimpl package.
E. The ServiceProvider module does not know the identity of a module (such as Consumer) that uses the com.example.api API.

Answer: AC

NEW QUESTION 27
Which two describe reasons to modularize the JDK? (Choose two.)

A. easier to understand the Java language
B. improves security and maintainability
C. easier to expose implementation details
D. improves application robustness
E. easier to build a custom runtime linking application modules and JDK modules

Answer: BD

NEW QUESTION 28
Which two statements correctly describe capabilities of interfaces and abstract classes? (Choose two.)

A. Interfaces cannot have protected methods but abstract classes can.
B. Both interfaces and abstract classes can have final methods.
C. Interfaces cannot have instance fields but abstract classes can.
D. Interfaces cannot have static methods but abstract classes can.
E. Interfaces cannot have methods with bodies but abstract classes can.

Answer: AC

NEW QUESTION 31
Given:

```
void myLambda() {
    int i = 25;
    Supplier<Integer> foo = () -> i;
    i++;
    System.out.println(foo.get());
}
```

Which is true?

A. The code compiles but does not print any result.
B. The code prints 25.
C. The code does not compile.
D. The code throws an exception at runtime.

Answer: C

NEW QUESTION 33
Which code fragment prints 100 random numbers?

A.
```
var r=  new Random();
new DoubleStream(r::nextDouble).limit(100).forEach(System.out::print);
```

B.
```
DoubleStream.generate(Random::nextDouble)
            .limit (100).forFach(System.out::print);
```

C.
```
Doublestream.generate(Random.nextDouble).limit(100).forEach(System.out.print);
```

D.
```
var r = new Random(); DoubleStream.generate(r::nextDouble).limit(100).forEach(System.out::print);
```

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

Answer: D

NEW QUESTION 38
Given:

```
public class Main {
   public static void main(String[] args) {
      int i = 1;
      for(String s : args) {
         System.out.println((i++) + ") " + s);
      }
   }
}
```

executed with this command: java Main one two three
What is the output of this class?

A. The compilation fails.
B. 1) one2) two3) three
C. A java.lang.ArrayIndexOutOfBoundsException is thrown.
D. 1) one
E. nothing

Answer: B

NEW QUESTION 43
Given:

```
try {
   // line 1
   lines.map(l -> l.toUpperCase())
      .forEach (line --> {
         try {
            Files.write(Paths.get("outputFile_to_path"),
line.getBytes(),StandardOpenOption.CREATE);
         } catch (IOExeption e) {
           e.printStackTrace();
         }
      });
} catch (IOException e) {
   e.printStackTrace();
}
```

You want to obtain the Stream object on reading the file. Which code inserted on line 1 will accomplish this?

A. var lines = Files.lines(Paths.get(INPUT_FILE_NAME));
B. Stream lines = Files.readAllLines(Paths.get(INPUT_FILE_NAME));
C. var lines = Files.readAllLines(Paths.get(INPUT_FILE_NAME));

D. Stream<String> lines = Files.lines(INPUT_FILE_NAME);

Answer: C

NEW QUESTION 45
Given these two classes:

```
public class Resource {
   public Worker owner;
   public synchronized boolean claim(Worker worker) {
      if (owner == null) {
           owner = worker;
           return true;
      }
      else return false;
   }
   public synchronized void release() {
      owner = null;
   }
}
public class Worker {
   public synchronized void work(Resource... resources) {
      for (int i = 0; i < 10; i++) {
           while (!resources[0].claim(this)) { }
           while (!resources[1].claim(this)) { }
           // do work with resource
           resources[1].release();
           resources[0].release();
      }
   }
}
```

And given this fragment:

```
Worker w1 = new Worker();
Worker w2 = new Worker();
Resource r1 = new Resource();
Resource r2 = new Resource();
new Thread( () -> {
     w1.work(r1, r2);
} ).start();
new Thread( () -> {
     w2.work(r2, r1);
} ).start();
```

Which describes the fragment?

A. It throws IllegalMonitorStateException.
B. It is subject to deadlock.
C. It is subject to livelock.
D. The code does not compile.

Answer: D

NEW QUESTION 47
Given:

```
public class Confidential implements Serializable{
   private String data;

   public Confidential(String data) {
      this.data = data;
   }
}
```

Which two are secure serialization of these objects? (Choose two.)

A. Define the serialPersistentFields array field.
B. Declare fields transient.
C. Implement only readResolve to replace the instance with a serial proxy and not writeReplace.
D. Make the class abstract.
E. Implement only writeReplace to replace the instance with a serial proxy and not readResolve.

Answer: AC

NEW QUESTION 52
Given:

```
public class DNASynth {
    int aCount;
    int tCount;
    int cCount;
    int gCount;

    int getACount(int aCount){
        return aCount;
    }
    int getTCount(int tCount){
        return this.tCount;
    }
    int getCCount(){
        return getTotalCount() - this.aCount - getTCount(0) - gCount;
    }
    int getGCount(){
        return getGCount();
    }
    int getTotalCount(){
        return aCount + getTCount(0) + this.cCount + this.gCount;
    }
}
```

Which two methods facilitate valid ways to read instance fields? (Choose two.)

A. getTCount
B. getACount
C. getTotalCount
D. getCCount
E. getGCount

Answer: CD

NEW QUESTION 53
Given:

```
public method foo() throws FooException {
    ...
}
```

and omitting the throws FooException clause results in a compilation error. Which statement is true about FooException?

A. FooException is a subclass of RuntimeError.
B. FooException is unchecked.
C. The body of foo can only throw FooException.
D. The body of foo can throw FooException or one of its subclasses.

Answer: D

NEW QUESTION 54
Given:

```
public class Test {
  public static void main(String[] args) {
    AnotherClass ac = new AnotherClass();
    SomeClass sc = new AnotherClass();
    ac = sc;
    sc.methodA();
    ac.methodA();
  }
}
class SomeClass {
  public void methodA() {
    System.out.println("SomeClass#methodA()");
  }
}
class AnotherClass extends SomeClass {
  public void methodA() {
    System.out.println("AnotherClass#methodA()");
  }
}
```

What is the result?

A. A ClassCastException is thrown at runtime.
B. AnotherClass#methodA()AnotherClass#methodA()
C. The compilation fails.
D. SomeClass#methodA()AnotherClass#methodA()
E. AnotherClass#methodA()SomeClass#methodA()
F. SomeClass#methodA()SomeClass#methodA()

Answer: C

Explanation:

```
1  public class Test {
2    public static void main (String[] args) {
3      AnotherClass ac = new AnotherClass();
   incompatible types: SomeClass cannot be converted to AnotherClass
5      ac = sc;
6      sc.methodA();
7      ac.methodA();
8    }
9  }
10 class SomeClass {
11   public void methodA() {
12     System.out.println("SomeClass#methodA()");
13
14   }
15 }
16 class AnotherClass extends SomeClass {
17   public void methodA() {
18     System.out.println("AnotherClass#methodA()");
19   }
20 }
```

NEW QUESTION 58
Given the code fragment:

```
String s = "";
if (Double.parseDouble("11.00f") > 11) {
    s += 1;
}
if (1_7 == Integer.valueOf("17")) {
    s += 2;
}
if (1024 > 1023L) {
    s += 3;
}
System.out.print(s);
```

What is the result?
A. 23
B. 12
C. 123
D. 13

Answer: A

Explanation:

```
Console 1
23
Completed with exit code: 0
```

NEW QUESTION 61
Given:

```
public class Person {
   private String name;
   public Person(String name) {
      this.name = name;
   }
   public String toString() {
      return name;
   }
}
```

and

```
public class Tester {
   public static void main(String[] args) {
      Person p = null;
      checkPerson(p);
      System.out.println(p);
      p = new Person("Mary");
      checkPerson(p);
      System.out.println(p);
   }
   public static Person checkPerson(Person p) {
      if (p == null) {
         p = new Person("Joe");
      }else{
         p = null;
      }
      return p;
   }
}
```

What is the result?

A. JoeMarry
B. Joenull
C. nullnull
D. nullMary

Answer: D

Explanation:

NEW QUESTION 62

Given:

```
public class Main {
   public static void main(String[] args) {
      Optional<String> value = createValue();
      String str = value.orElse ("Duke");
      System.out.println(str);
   }
   static Optional<String> createValue() {
      String s = null;
      return Optional.ofNullable(s);
   }
}
```

What is the output?

A. null
B. A NoSuchElementException is thrown at run time.
C. Duke
D. A NullPointerException is thrown at run time.

Answer: C

Explanation:

```
14
15  public class Main {
16    public static void main(String[] args) {
17      Optional<String> value = createValue();
18      String str = value.orElse ("Duke");
19      System.out.println(str);
20    }
21    static Optional<String> createValue() {
22      String s = null;
23      return Optional.ofNullable(s);
24    }
25  }
26
```

Result

CPU Time: 0.15 sec(s), Memory: 32572 kilobyte(s)

```
Duke
```

NEW QUESTION 66
Given:

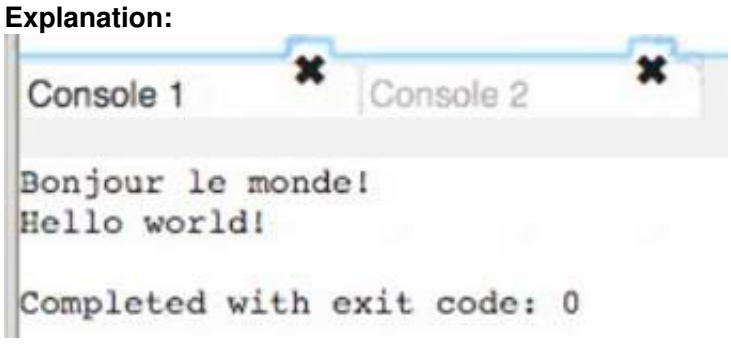
```
public class Foo {
    private void print() {
        System.out.println("Bonjour le monde!");
    }
    public void foo() {
        print();
    }
}

public class Bar extends Foo {
    private void print() {
        System.out.println("Hello world!");
    }
    public void bar() {
        print();
    }
    public static void main(String... args) {
        Bar b = new Bar();
        b.foo();
        b.bar();
    }
}
```

What is the output?

A. Hello world!Bonjour le monde!
B. Hello world!Hello world!
C. Bonjour le monde!Hello world!
D. Bonjour le monde!Bonjour le monde!

Answer: C

Explanation:



NEW QUESTION 70
Given: Automobile.java

```
public abstract class Automobile { //line 1
   abstract void wheels();
}
```

Car.java

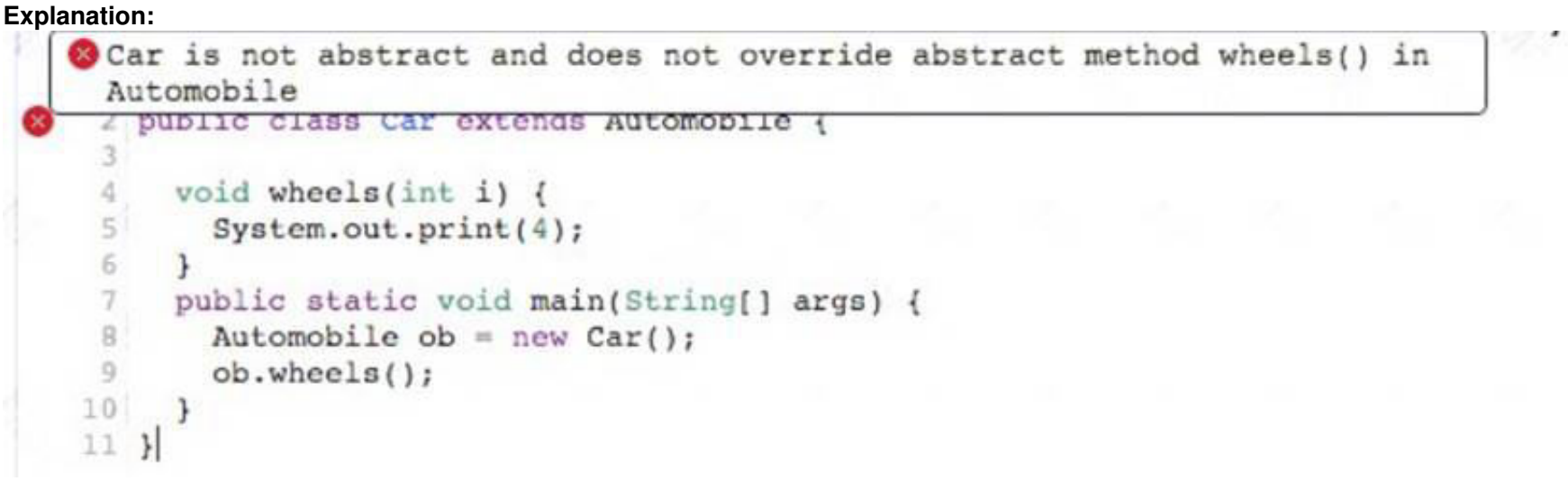
```
public class Car extends Automobile {
                                        // line 2
    void wheels(int i) {                // line 3
        System.out.print(4);
    }
    public static void main(String[] args) {
        Automobile ob = new Car(); // line 4
        ob.wheels();
    }
}
```

What must you do so that the code prints 4?

A. Remove the parameter from wheels method in line 3.
B. Add @Override annotation in line 2.
C. Replace the code in line 2 with Car ob = new Car();
D. Remove abstract keyword in line 1.

Answer: B

Explanation:



NEW QUESTION 72
Analyze the code:

```
public class Test {
    static String prefix = "Global:";
    private String name = "namescope";
    public static String getName(){
      return new Test().name;
    }
    public static void main(String[] args) {
      Test t = new Test();
      System.out.println(/* Insert code here */);
    }
}
```

Which two options can you insert inside println method to produce Global:namescope? (Choose two.)

A. Test.prefix+Test.name
B. new Test().prefix+new Test().name
C. Test.prefix+Test.getName()
D. Test.getName+prefix
E. prefix+Test.name
F. prefix+name

Answer: BC

NEW QUESTION 75
Given:

```
import java.util.*;
public class Foo {
    public List<Number> foo(Set<CharSequence> m) { ... }
}
```

and

```
import java.util.*;
public class Bar extends Foo {
    //line 1
}
```

Which two statements can be added at line 1 in Bar to successfully compile it? (Choose two.)

A. public List<Integer> foo(Set<CharSequence> m) { ... }
B. public ArrayList<Number> foo(Set<CharSequence> m) { ... }
C. public List<Integer> foo(TreeSet<String> m) { ... }
D. public List<Integer> foo(Set<String> m) { ... }
E. public List<Object> foo(Set<CharSequence> m) { ... }
F. public ArrayList<Integer> foo(Set<String> m) { ... }

Answer: BC

NEW QUESTION 79
Given the code fragment:
Path source = Paths.get("/repo/a/a.txt"); Path destination = Paths.get("/repo"); Files.move(source, destination); // line 1 Files.delete (source); // line 2
Assuming the source file and destination folder exist, what Is the result?

A. A java.nio.file.FileAlreadyExistsException is thrown on line 1.
B. A java.nio.file.NoSuchFileException is thrown on line 2.
C. A copy of /repo/a/a.txt is moved to the /repo directory and /repo/a/a.txt is deleted.
D. a.txt is renamed repo.

Answer: C

NEW QUESTION 82
Given:

```
public class Employee {
    private String name;
    private LocalDate birthday;
    // the constructors, getters, and setters methods go here
}
```

and

```
List<Employee> roster = new ArrayList<>();
// ...
Predicate<Employee> y = (Employee e) -> e.getBirthday()
    .isBefore(IsoChronology.INSTANCE.date(1989, 1, 1));
Set<String> s1 = roster.stream()
// Line 1
```

Which code fragment on line 1 makes the s1 set contain the names of all employees born before January 1, 1989?

A.
```
.collect(Collectors.partitioningBy(y))
.get(true)
.stream()
.map(Employee::getName)
.collect(Collectors.toCollection(TreeSet::new));
```

B.
```
.collect(Collectors.partitioningBy(y))
.get(true)
.map(Employee::getName)
.collect(Collectors.toSet());
```

C.
```
.collect(Collectors.partitioningBy(y, Collectors.mapping(
    Employee::getName, Collectors.toSet())));
```

D.
```
.collect(Collectors.partitioningBy(y, Collectors.groupingBy(
    Employee::getName, Collectors.toCollection(TreeSet::new))));
```

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

Answer: B

NEW QUESTION 86
Which interface in the java.util.function package can return a primitive type?

A. ToDoubleFunction
B. Supplier
C. BiFunction
D. LongConsumer

Answer: A

NEW QUESTION 91
Given:

```
import java.io.*;
public class Tester {
   public static void main(String[] args) {
      try {
         doA();
         doB();
      } catch(IOException e) {
         System.out.print("c");
         return;
      } finally{
         System.out.print("d");
      }
      System.out.print("f");
   }
   private static void doA() {
      System.out.print("a");
      if (false) {
         throw new IndexOutOfBoundsException();
       }
   }
   private static void doB() throws FileNotFoundException {
      System.out.print("b");
      if (true) {
         throw new FileNotFoundException();
      }
   }
}
```

What is the result?

A. The compilation fails.
B. abdf
C. abd
D. adf
E. abcd

Answer: E

NEW QUESTION 92
Given:

```
List<Reader> dataFiles = new ArrayList<>();
File indexFile = new File("MyIndex.idx");
try (BufferedReader indexReader =
      new BufferedReader(new FileReader(indexFile))) {
   for(String file = indexReader.readbine(); file != null;
      file = indexReader.readLine()) {
    BufferedReader dataReader = new BufferedReader (
      new FileReader(new File(file))); // Line 1
    dataFiles.add(dataReader); // Line 2
    processData(dataReader); // Line 3
   }
}  catch (IOException ex) {
   ...
}  finally {
   for(Reader r : dataFiles) {
      try {
         r.close();
      } catch (IOException ex) (
        ...
      } // Line 4
   }
}
```

What will secure this code from a potential Denial of Service condition?

A. After Line 4, add indexReader.close().
B. On Line 3, enclose processData(dataReader) with try with resources.
C. After Line 3, add dataReader.close().
D. On Line 1, use try with resources when opening each dataReader.
E. Before Line 1, check the size of dataFiles to make sure it does not exceed a threshold.

Answer: B

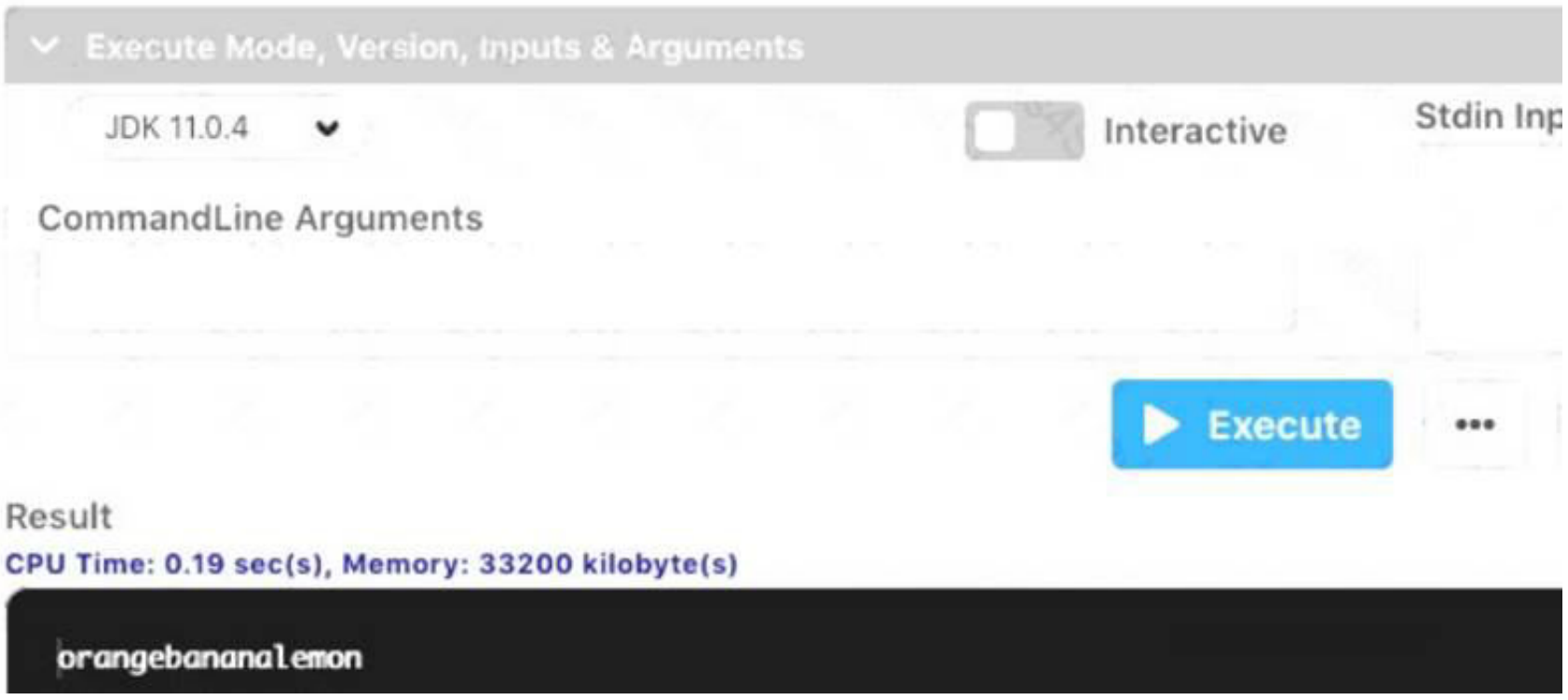
NEW QUESTION 93
Given:
var fruits = List.of("apple", "orange", "banana", "lemon");
You want to examine the first element that contains the character n. Which statement will accomplish this?

A. String result = fruits.stream().filter(f > f.contains("n")).findAny();
B. fruits.stream().filter(f > f.contains("n")).forEachOrdered(System.out::print);
C. Optional<String> result = fruits.stream().filter(f > f.contains ("n")).findFirst ();
D. Optional<String> result = fruits.stream().anyMatch(f > f.contains("n"));

Answer: B

Explanation:

```java
import java.io.*;
import java.util.*;
public class abc {
  public static void main(String[] args) {

    var fruits = List.of("apple", "orange", "banana", "lemon");

fruits.stream().filter(f -> f.contains("n")).forEachOrdered(System.out::print);

  }
}

```



NEW QUESTION 98
Given:

```
List<String> list1 = new LinkedList<String>();
Set<String> hs1 = new HashSet<String>();
String[] v = {“a”, “b”, “c”, “b”, “a”};
for (String s: v) {
     list1.add(s);
     hs1.add(s);
}
System.out.print(hs1.size() + “ “ + list1.size() + “ “);
HashSet hs2 = new HashSet(list1);
LinkedList list2 = new LinkedList(hs1);
System.out.print(hs2.size() + “ “ + list2.size());
```

What is the result?

A. 3 5 3 3
B. 3 3 3 3
C. 3 5 3 5
D. 5 5 3 3

Answer: A

Explanation:

```java
import java.util.*;
import java.io.*;
import java.lang.Thread;
import java.util.ArrayList;
import java.util.LinkedList;
import java.util.List;
import java.util.function.Consumer;
import java.util.stream.Stream;
import java.util.stream.IntStream;
import java.util.Optional;


public class Main {
    public static void main(String[] args) {
        List<String> list1 = new LinkedList<String>();
        Set<String> hs1 = new HashSet<String>();
        String[] v = {"a", "b", "c", "b", "a"};
        for (String s: v) {
            list1.add(s);
            hs1.add(s);
        }
        System.out.println(hs1.size() + "" + list1.size() + "");
        HashSet hs2 = new HashSet(list1);
        LinkedList list2 = new LinkedList(hs1);
        System.out.print(hs2.size() + "" + list2.size());

    }
}
```

Result

CPU Time: 0.28 sec(s), Memory: 36204 kilobyte(s)

```
35
33
```

NEW QUESTION 99
Given:

```
for(var i = 0; i < 10; i++) {
  switch(i%5) {
    case 2:
      i *= i;
      break;
    case 3:
      i++;
      break;
    case 1:
    case 4:
      i++;
      continue;
    default:
      break;
  }
  System.out.print(i + " ");
  i++;
}
```

What is the result?

A. nothing
B. 10
C. 0 4 9

Answer: A

NEW QUESTION 101
.....

Oracle

Exam Questions 1Z0-819

Java SE 11 Developer

NEW QUESTION 1
Given:

```
1. public class Test {
2.    private static class Greet {
3.       private void print() {
4.          System.out.println(“Hello World”);
5.       }
6.    }
7.    public static void main(String[] args) {
8.       Test.Greet i = new Greet();
9.       i.print();
10.   }
11. }
```

What is the result?

A. The compilation fails at line 9.
B. The compilation fails at line 2.
C. Hello World
D. The compilation fails at line 8.

Answer: C

Explanation:

```
1  public class Test {
2      private static class Greet {
3          private void print() {
4              System.out.println("Hello World");
5          }
6      }
7      public static void main(String[] args) {
8          Test.Greet i = new Greet();
9          i.print();
10     }
11 }
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

CommandLine Arguments

Result

CPU Time: 0.16 sec(s), Memory: 32504 kilobyte(s)

```
Hello World
```

NEW QUESTION 2
Given:

```
package b;
public class Person {
   protected Person() {            //line 1
   }
}
```

and

```
package a;
import b.Person;
public class Main {                //line 2
   public static void main(String[] args) {
     Person person = new Person(); //line 3
   }
}
```

Which two allow a.Main to allocate a new Person? (Choose two.)

A. In Line 1, change the access modifier to privateprivate Person() {
B. In Line 1, change the access modifier to publicpublic Person() {
C. In Line 2, add extends Person to the Main classpublic class Main extends Person {and change Line 3 to create a new Main objectPerson person = new Main();
D. In Line 2, change the access modifier to protectedprotected class Main {
E. In Line 1, remove the access modifierPerson() {

Answer: BC

NEW QUESTION 3
Which interface in the java.util.function package will return a void return type?

A. Supplier
B. Predicate
C. Function
D. Consumer

Answer: D

NEW QUESTION 4
Given:

```
package a;
public abstract class Animal {
  protected abstract void walk();
}
package b;
public abstract class Human extends Animal {
  // line 1
}
```

Which two lines inserted in line 1 will allow this code to compile? (Choose two.)

A. protected void walk(){}
B. void walk(){}
C. abstract void walk();
D. private void walk(){}
E. public abstract void walk();

Answer: AE

NEW QUESTION 5
Which two commands are used to identify class and module dependencies? (Choose two.)

A. jmod describe
B. java Hello.java
C. jdeps --list-deps
D. jar --show-module-resolution
E. java --show-module-resolution

Answer: CE

NEW QUESTION 6
Given:

```
public static void main(String[] args) {
    final List<String> fruits =
       List.of("Orange", "Apple", "Lemmon", "Raspberry");
    final List<String> types =
       List.of("Juice", "Pie", "Ice", "Tart");
    final var stream =
       IntStream.range(0, Math.min(fruits.size(), types.size()))
           .mapToObj((i) -> fruits.get(i) + " " + types.get(i) );
    stream. forEach(System.out::println);
}
```

What is the result?

A. Orange Juice
B. The compilation fails.
C. Orange Juice Apple Pie Lemmon Ice Raspberry Tart
D. The program prints nothing.

Answer: C

Explanation:

```
12 public class Person {
13     public static void main (String[] args) {
14         final List<String> fruits =
15         List.of("Orange", "Apple", "Lemmon", "raspberry");
16         final List<String> types =
17         List.of("Juice", "Pie", "Ice", "Tart");
18         final var stream =
19         IntStream.range(0, Math.min(fruits.size(), types.size()))
20         .mapToObj ((i) -> fruits.get(i) + " " + types.get(i) );
21         stream. forEach(System.out::println);
22     }
23
24 }
```

Result

compiled and executed in 1.227 sec(s)

```
Orange Juice
Apple Pie
Lemmon Ice
raspberry Tart
```

NEW QUESTION 7
Given:

```
1. {
2.   Iterator iter = List.of(1,2,3).iterator();
3.   while (iter.hasNext()) {
4.     foo(iter.next());
5.   }
6.   Iterator iter2 = List.of(1,2,3).iterator();
7.   while (iter.hasNext()) {
8.     bar(iter2.next());
9.   }
10. }
11.  for (Iterator iter = List.of(1,2,3).iterator(); iter.hasNext(); ) {
12.    foo(iter.next());
13.  }
14.  for (Iterator iter2 = List.of(1,2,3).iterator(); iter.hasNext(); ) {
15.    bar(iter2.next());
16.  }
```

Which loop incurs a compile time error?

A. the loop starting line 11
B. the loop starting line 7
C. the loop starting line 14
D. the loop starting line 3

Answer: C

NEW QUESTION 8
Which two statements set the default locale used for formatting numbers, currency, and percentages? (Choose two.)

A. Locale.setDefault(Locale.Category.FORMAT, “zh-CN”);
B. Locale.setDefault(Locale.Category.FORMAT, Locale.CANADA_FRENCH);
C. Locale.setDefault(Locale.SIMPLIFIED_CHINESE);
D. Locale.setDefault(“en_CA”);
E. Locale.setDefault(“es”, Locale.US);

Answer: BD

NEW QUESTION 9
Given:

```
package A;
class Test {
  String name;
  public Test(String name) {
    this.name = name;
  }
  public String toString() {
    return name;
  }
}
```

and

```
package B;
import A.Test;
public class Main {
  public static void main(String[] args) {
    Test test = new Test("Student");
    System.out.println(test);
  }
}
```

What is the result?

A. null
B. nothing
C. It fails to compile.
D. java.lang.IllegalAccessException is thrown.
E. Student

Answer: C

NEW QUESTION 10
Given:

```
public class Tester {
   static class Person implements /* line 1 */ {
      private String name;
      Person(String name) { this.name = name; }
      /* line 2 */
   }
   public static void main(String[] args) {
      Person[] people = {new Person(“Joe”),
                         new Person(“Jane”),
                         new Person(“John”)};
      Arrays-sort(people);
      for(Person person: people) {
         System.out.println(person.name);
      }
   }
}
```

You want the code to produce this output:
John
Joe Jane
Which code fragment should be inserted on line 1 and line 2 to produce the output?

A. Insert Comparator<Person> on line 1.Insertpublic int compare(Person p1, Person p2) { return p1.name.compare(p2.name);}on line 2.
B. Insert Comparator<Person> on line 1.Insertpublic int compareTo(Person person) { return person.name.compareTo(this.name);}on line 2.
C. Insert Comparable<Person> on line 1.Insertpublic int compare(Person p1, Person p2) { return p1.name.compare(p2.name);}on line 2.
D. Insert Comparator<Person> on line 1.Insertpublic int compare(Person person) { return person.name.compare(this.name);}on line 2.

Answer: B

NEW QUESTION 10
Which command line runs the main class com.acme.Main from the module com.example?

A. java --module-path mods com.example/com.acme.Main
B. java –classpath com.example.jar com.acme.Main
C. java --module-path mods -m com.example/com.acme.Main
D. java -classpath com.example.jar –m com.example/com.acme.Main

Answer: D

NEW QUESTION 15
Given:

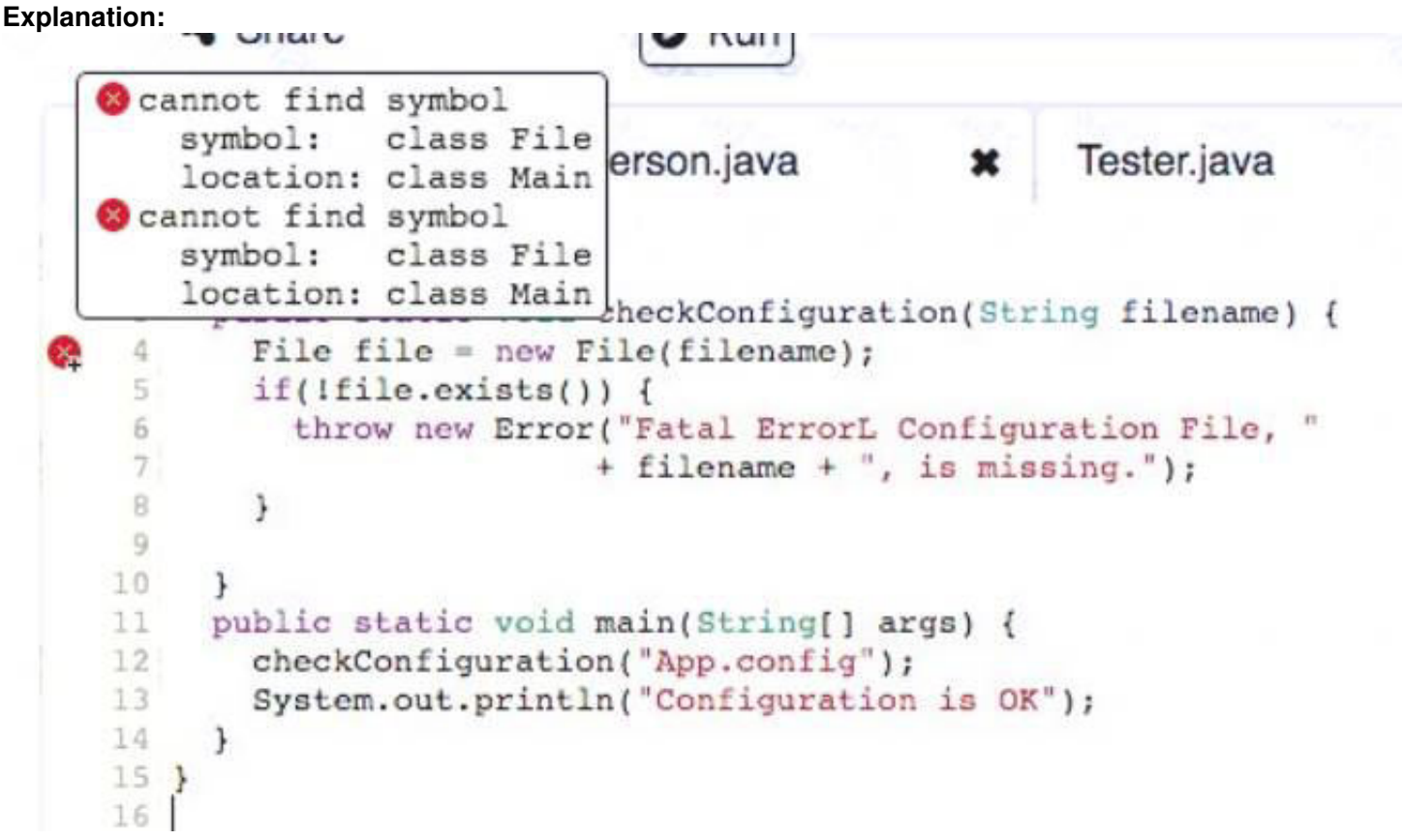
```
public class Main {

  public static void checkConfiguration(String filename) {
    File file = new File(filename);
    if(!file.exists()) {
      throw new Error("Fatal Error: Configuration File, "
            + filename + ", is missing.");
    }

  public static void main(String[] args) {
    checkConfiguration("App.config");
    System.out.println("Configuration is OK");
  }
}
```

If file "App.config" is not found, what is the result?

A. Configuration is OK
B. The compilation fails.
C. Exception in thread "main" java.lang.Error:Fatal Error: Configuration File, App.config, is missing.
D. nothing

Answer: B

Explanation:



NEW QUESTION 16
Given:

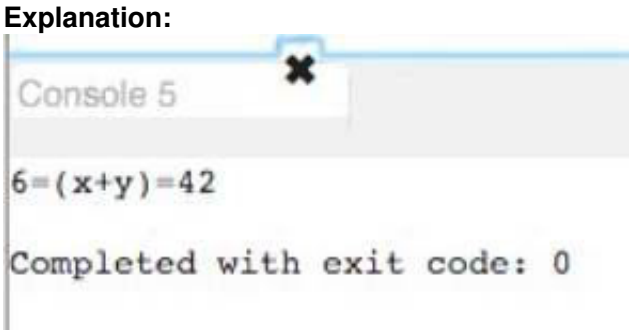
```
public class Tester {
   public static void main(String[] args) {
      int x = 4;
      int y = 2;
      System.out.println(x+y+"=(x+y)="+x+y);
   }
}
```

What is the result?

A. An exception is thrown at runtim
B. 42=(x+y)=42
C. 42=(x+y)=6
D. 6=(x+y)=42
E. 6=(x+y)=6

Answer: D

Explanation:



NEW QUESTION 21
Which describes a characteristic of setting up the Java development environment?

A. Setting up the Java development environment requires that you also install the JRE.
B. The Java development environment is set up for all operating systems by default.
C. You set up the Java development environment for a specific operating system when you install the JDK.
D. Setting up the Java development environment occurs when you install an IDE before the JDK.

Answer: D

NEW QUESTION 25
Given:

```
public static void main(String[] args) {
    try (Reader reader1 = new FileReader("File1.txt");
         Reader reader2 = new FileReader("File2.txt");
         Reader reader3 = new FileReader("File3_txt")) {

    } catch (IOException ex) {
       Logger.getLogger(Main.class.getName()).log(Level.SEVERE, null, ex);
    }
    // Line 1
    System.out.println("Done");
}
```

When run and all three files exist, what is the state of each reader on Line 1?

A. All three readers are still open.
B. All three readers have been closed.
C. The compilation fails.
D. Only reader1 has been closed.

Answer: C

NEW QUESTION 30
Consider this method declaration:

```
void setSessionUser(Connection conn, String user) throws SQLException {
     Statement stmt = conn.createStatement();
     String sql = <EXPRESSION>;
     stmt .execute();
}
```

A) "SET SESSION AUTHORIZATION " + user
B) "SET SESSION AUTHORIZATION " + stmt.enquoteIdentifier(user) Is A or B the correct replacement for <EXPRESSION> and why?

A. A, because it sends exactly the value of user provided by the calling code.
B. B, because enquoting values provided by the calling code prevents SQL injection.
C. A and B are functionally equivalent.
D. A, because it is unnecessary to enclose identifiers in quotes.
E. B, because all values provided by the calling code should be enquoted.

Answer: A

NEW QUESTION 34
Given:

```
1.    public class Secret {
2.         String[] names;
3.         public Secret(String[] names) {
4.              this.names = names;
5.         }
6.         public String[] getNames() {
7.              return names;
8.         }
9.    }
```

Which three actions implement Java SE security guidelines? (Choose three.)

A. Change line 7 to return names.clone();.
B. Change line 4 to this.names = names.clone();.
C. Change the getNames() method name to get$Names().
D. Change line 6 to public synchronized String[] getNames() {.
E. Change line 2 to private final String[] names;.
F. Change line 3 to private Secret(String[] names) {.
G. Change line 2 to protected volatile String[] names;.

Answer: EFG

NEW QUESTION 38
Given:

```
public class Foo {
   private final ReentrantLock lock = new ReentrantLock();
   private State state;
   public void foo() throws Exception {
      try {
         lock.lock();
         state.mutate();
      }
      finally {
         lock.unlock();
      }
   }
}
```

What is required to make the Foo class thread safe?

A. No change is required.
B. Make the declaration of lock static.
C. Replace the lock constructor call with new ReentrantLock (true).
D. Move the declaration of lock inside the foo method.

Answer: C

NEW QUESTION 41
Given:

```
import java.io.FileNotFoundException;
import java.io.IOException;

public class Tester {
   public static void main(String[] args) {
      try {
         doA();
      } //line 1
   }
   private static void doA() throws IOException, IndexOutOfBoundsException {
      if (false) {
          throw new FileNotFoundException();
      } else {
          throw new IndexOutOfBoundsException();
      }
   }
}
```

What must be added in line 1 to compile this class?

A. catch(IOException e) { }
B. catch(FileNotFoundException | IndexOutOfBoundsException e) { }

C. catch(FileNotFoundException | IOException e) { }
D. catch(IndexOutOfBoundsException e) { }catch(FileNotFoundException e) { }
E. catch(FileNotFoundException e) { }catch(IndexOutOfBoundsException e) { }

Answer: A

NEW QUESTION 43
Which is the correct order of possible statements in the structure of a Java class file?

A. class, package, import
B. package, import, class
C. import, package, class
D. package, class, import
E. import, class, package

Answer: B

NEW QUESTION 46
Given:

```
public class DNASynth {
    int aCount;
    int tCount;
    int cCount;
    int gCount;

    DNASynth(int a, int tCount, int c, int g){
        // line 1
    }
    int setCCount(int c){
        return c;
    }
    void setGCount(int gCount){
        this.gCount = gCount;
    }
}
```

Which two lines of code when inserted in line 1 correctly modifies instance variables? (Choose two.)

A. setCCount(c) = cCount;
B. tCount = tCount;
C. setGCount(g);
D. cCount = setCCount(c);
E. aCount = a;

Answer: BE

NEW QUESTION 47
Given:

```
class Employee {
    String office;
}
```

and the code fragment:

```
5. public class HRApp {
6.     var employee = new ArrayList<Employee>();
7.     public var display() {
8.         var employee = new Employee();
9.         var offices = new ArrayList<>();
10.        offices.add("Chicago");
11.        offices.add("Bangalore");
12.        for (var office : offices) {
13.            System.out.print("Employee Location"+ office);
14.        }
15.    }
16. }
```

Which two lines cause compilation errors? (Choose two.)

A. line 12
B. line 6

C. line 9
D. line 8
E. line 7

Answer: BE

NEW QUESTION 52
You are working on a functional bug in a tool used by your development organization. In your investigation, you find that the tool is executed with a security policy file containing this grant.

```
grant codebase "file:${klib.home}/j2se/home/klib.jar" {
    permission java.security.AllPermission;
};
```

What action should you take?

A. Nothing, because it is an internal tool and not exposed to the public.
B. Remove the grant because it is excessive.
C. Nothing, because it is not related to the bug you are investigating.
D. File a security bug against the tool referencing the excessive permission granted.
E. Nothing, because listing just the required permissions would be an ongoing maintenance challenge.

Answer: D

NEW QUESTION 55
Given the code fragment:

```
int[] secA = { 2, 4, 6, 8, 10 };
int[] secB = { 2, 4, 8, 6, 10 };
int res1 = Arrays.mismatch(secA, secB);
int res2 = Arrays.compare(secA, secB);
System.out.print(res1 + " : " + res2);
```

What is the result?

A. -1 : 2
B. 2 : -1
C. 2 : 3
D. 3 : 0

Answer: B

NEW QUESTION 56
Given:

```
String[][] arr = {
   {"Red", "White"},
   {"Black"},
   {"Blue", "Yellow","Green","Violet"}
};
for(int row = 0; row < arr.length; row++) {
   int column = 0;
   for(; column < arr[row].length; column++) {
      System.out.println("[" + row + "," + column + "] = " + arr[row][column]);
   }
}
```

What is the result?

A. [0,0] = Red[0,1] = White[1,0] = Black[1,1] = Blue[2,0] = Yellow[2,1] = Green[3,0] = Violet
B. [0,0] = Red[1,0] = Black[2,0] = Blue
C. java.lang.ArrayIndexOutOfBoundsException thrown
D. [0,0] = Red[0,1] = White[1,0] = Black[2,0] = Blue[2,1] = Yellow[2,2] = Green[2,3] = Violet

Answer: D

Explanation:

NEW QUESTION 59
Which code fragment prints 100 random numbers?

A.
```
var r=  new Random();
new DoubleStream(r::nextDouble).limit(100).forEach(System.out::print);
```

B.
```
DoubleStream.generate(Random::nextDouble)
            .limit (100).forFach(System.out::print);
```

C.
```
Doublestream.generate(Random.nextDouble).limit(100).forEach(System.out.print);
```

D.
```
var r = new Random(); DoubleStream.generate(r::nextDouble).limit(100).forEach(System.out::print);
```

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

Answer: D

NEW QUESTION 60
Given:
String originalPath = “data\\projects\\a-project\\..\\..\\another-project”; Path path = Paths.get(originalPath); System.out.print(path.normalize());
What is the result?

A. data\another-project
B. data\projects\a-project\another-project
C. data\\projects\\a-project\\..\\..\\another-project
D. data\projects\a-project\..\..\another-project

Answer: D

Explanation:

```java
import java.util.*;
import java.io.*;
import java.nio.file.*;

public class Test {

  public static void main(String[] args) {
    String originalPath = "data\\projects\\a-project\\..\\..\\another-project";
Path path = Paths.get(originalPath);
System.out.print(path.normalize());
  }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4 Interactive Stdin Inp

CommandLine Arguments

Execute

Result

CPU Time: 0.19 sec(s), Memory: 31984 kilobyte(s)

```
data\projects\a-project\..\..\another-project
```

NEW QUESTION 63
Given:

```
public class Person {
   private String name = "Joe Bloggs";
   public Person(String name) {
      this.name = name;
   }
   public String toString() {
      return name;
   )
}
```

and

```
public class Tester {
   public static void main(String[] args) {
      Person p1 = new Person(); // line 1
      System.out.println(p1);
   }
}
```

What is the result?

A. null
B. Joe Bloggs
C. The compilation fails due to an error in line 1.
D. p1

Answer: C

Explanation:

```
constructor Person in class Person cannot be applied to given types;
  required: java.lang.String
  found: no arguments
  reason: actual and formal argument lists differ in length
```

```
4       Person p1 = new Person();
5       System.out.println(p1);
6     }
7   }
```

NEW QUESTION 65
Given:

```
try {
  // line 1
  lines.map(l -> l.toUpperCase())
    .forEach (line --> {
      try {
        Files.write(Paths.get("outputFile_to_path"),
line.getBytes(),StandardOpenOption.CREATE);
      } catch (IOExeption e) {
        e.printStackTrace();
      }
    });
} catch (IOException e) {
  e.printStackTrace();
}
```

You want to obtain the Stream object on reading the file. Which code inserted on line 1 will accomplish this?

A. var lines = Files.lines(Paths.get(INPUT_FILE_NAME));
B. Stream lines = Files.readAllLines(Paths.get(INPUT_FILE_NAME));
C. var lines = Files.readAllLines(Paths.get(INPUT_FILE_NAME));
D. Stream<String> lines = Files.lines(INPUT_FILE_NAME);

Answer: C

NEW QUESTION 68
Which describes an aspect of Java that contributes to high performance?

A. Java prioritizes garbage collection.
B. Java has a library of built-in functions that can be used to enable pipeline burst execution.
C. Java monitors and optimizes code that is frequently executed.
D. Java automatically parallelizes code execution.

Answer: C

NEW QUESTION 72
Given:

```
public class Confidential implements Serializable{
   private String data;

   public Confidential(String data) {
      this.data = data;
   }
}
```

Which two are secure serialization of these objects? (Choose two.)

A. Define the serialPersistentFields array field.
B. Declare fields transient.
C. Implement only readResolve to replace the instance with a serial proxy and not writeReplace.
D. Make the class abstract.
E. Implement only writeReplace to replace the instance with a serial proxy and not readResolve.

Answer: AC

NEW QUESTION 74
Given:

```
public class DNASynth {
    int aCount;
    int tCount;
    int cCount;
    int gCount;

    int getACount(int aCount){
        return aCount;
    }
    int getTCount(int tCount){
        return this.tCount;
    }
    int getCCount(){
        return getTotalCount() - this.aCount - getTCount(0) - gCount;
    }
    int getGCount(){
        return getGCount();
    }
    int getTotalCount(){
        return aCount + getTCount(0) + this.cCount + this.gCount;
    }
}
```

Which two methods facilitate valid ways to read instance fields? (Choose two.)

A. getTCount
B. getACount
C. getTotalCount
D. getCCount
E. getGCount

Answer: CD

NEW QUESTION 76
Given:

```
import java.util.function.BiFunction;
public class Pair<T> {
    final BiFunction<T, T, Boolean> validator;
    T left = null;
    T right = null;
    private Pair() {
      validator=null;
    }
    Pair(BiFunction<T, T, Boolean> v, T x, T y) {
        validator = v;
        set(x, y);
    }
    void set(T x, T y) {
        if (!validator.apply(x, y)) throw new IllegalArgumentException();
        setLeft(x);
        setRight(y);
    }
    void setLeft(T x) {
        left = x;
    }
    void setRight(T y) {
        right = y;
    }
    final boolean isValid() {
        return validator.apply(left, right);
    }
}
```

It is required that if p instanceof Pair then p.isValid() returns true.
Which is the smallest set of visibility changes to insure this requirement is met?

A. setLeft and setRight must be protected.
B. left and right must be private.
C. isValid must be public.
D. left, right, setLeft, and setRight must be private.

Answer: B

NEW QUESTION 77

Given:

```
public interface A {
    public Iterable a();
}
public interface B extends A {
    public Collection a();
}
public interface C extends A {
    public Path a();
}
public interface D extends B, C {
}
```

Why does D cause a compilation error?

A. D inherits a() only from C.
B. D inherits a() from B and C but the return types are incompatible.
C. D extends more than one interface.
D. D does not define any method.

Answer: B

NEW QUESTION 79
Which two statements are true about Java modules? (Choose two.)

A. Modular jars loaded from --module-path are automatic modules.
B. Any named module can directly access all classes in an automatic module.
C. Classes found in –classpath are part of an unnamed module.
D. Modular jars loaded from –classpath are automatic modules.
E. If a package is defined in both the named module and the unnamed module, then the package in the unnamed module is ignored.

Answer: AC

NEW QUESTION 80
Which two are functional interfaces? (Choose two.)

A.
```
@FunctionalInterface
interface MyRunnable {
   public void run();
}
```

B.
```
@FunctionalInterface
interface MyRunnable {
   public void run();
   public void call();
}
```

C.
```
interface MyRunnable {
   public default void run() {}
   public void run(String s);
}
```

D.
```
@FunctionalInterface
interface MyRunnable {
}
```

E.
```
interface MyRunnable {
   @FunctionalInterface
   public void run();
}
```

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

Answer: CE

NEW QUESTION 83
Given this requirement:
Module vehicle depends on module part and makes its com.vehicle package available for all other modules. Which module-info.java declaration meets the

requirement?

A

```
module vehicle{
    requires part;
    exports com.vehicle;
}
```

B

```
module vehicle {
    requires part;
    uses com.vehicle;
}
```

C

```
module vehicle{
   requires part;
   exports com.vehicle to part;
}
```

D

```
module vehicle {
   requires com.vehicle;
   exports part;
}
```

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

Answer: A

NEW QUESTION 85
Given:

```
public class Test {
  public static void main(String[] args) {
    AnotherClass ac = new AnotherClass();
    SomeClass sc = new AnotherClass();
    ac = sc;
    sc.methodA();
    ac.methodA();
  }
}
class SomeClass {
  public void methodA() {
    System.out.println("SomeClass#methodA()");
  }
}
class AnotherClass extends SomeClass {
  public void methodA() {
    System.out.println("AnotherClass#methodA()");
  }
}
```

What is the result?

A. A ClassCastException is thrown at runtime.
B. AnotherClass#methodA()AnotherClass#methodA()
C. The compilation fails.
D. SomeClass#methodA()AnotherClass#methodA()
E. AnotherClass#methodA()SomeClass#methodA()
F. SomeClass#methodA()SomeClass#methodA()

Answer: C

Explanation:

```
1  public class Test {
2    public static void main (String[] args) {
3      AnotherClass ac = new AnotherClass();
       incompatible types: SomeClass cannot be converted to AnotherClass
5      ac = sc;
6      sc.methodA();
7      ac.methodA();
8    }
9  }
10 class SomeClass {
11   public void methodA() {
12     System.out.println("SomeClass#methodA()");
13
14   }
15 }
16 class AnotherClass extends SomeClass {
17   public void methodA() {
18     System.out.println("AnotherClass#methodA()");
19   }
20 }
```

NEW QUESTION 86
Which set of commands is necessary to create and run a custom runtime image from Java source files?

A. java, jdeps
B. javac, jlink
C. jar, jlink
D. javac, jar

Answer: B

NEW QUESTION 88
Which statement about access modifiers is correct?

A. An instance variable can be declared with the static modifier.
B. A local variable can be declared with the final modifier.
C. An abstract method can be declared with the private modifier.
D. An inner class cannot be declared with the public modifier.
E. An interface can be declared with the protected modifier.

Answer: B

NEW QUESTION 91
Given:

```
public class Foo {
    private void print() {
        System.out.println("Bonjour le monde!");
    }
    public void foo() {
        print();
    }
}

public class Bar extends Foo {
    private void print() {
        System.out.println("Hello world!");
    }
    public void bar() {
        print();
    }
    public static void main(String... args) {
        Bar b = new Bar();
        b.foo();
        b.bar();
    }
}
```

What is the output?

A. Hello world!Bonjour le monde!
B. Hello world!Hello world!
C. Bonjour le monde!Hello world!
D. Bonjour le monde!Bonjour le monde!

Answer: C

Explanation:

NEW QUESTION 92
Given: Automobile.java

```
public abstract class Automobile { //line 1
   abstract void wheels();
}
```

Car.java

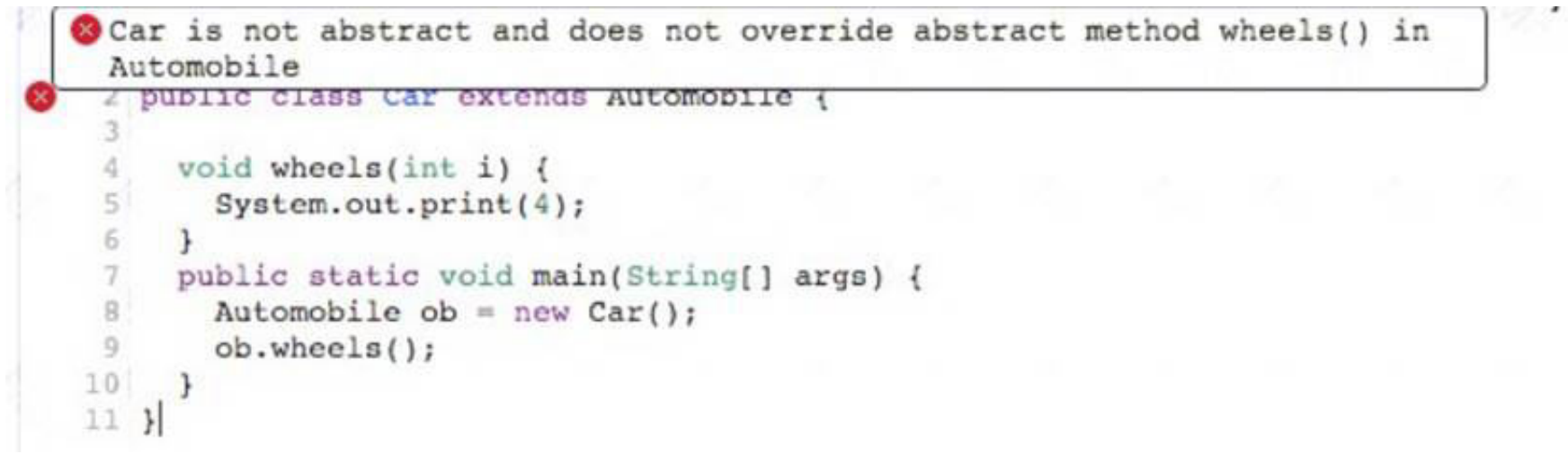
```
public class Car extends Automobile {
                                    // line 2
    void wheels(int i) {            // line 3
        System.out.print(4);
    }
    public static void main(String[] args) {
        Automobile ob = new Car(); // line 4
        ob.wheels();
    }
}
```

What must you do so that the code prints 4?

A. Remove the parameter from wheels method in line 3.
B. Add @Override annotation in line 2.
C. Replace the code in line 2 with Car ob = new Car();
D. Remove abstract keyword in line 1.

Answer: B

Explanation:



NEW QUESTION 96
Given:
/code/a/Test.java containing:

```
package a;
import b.Best;
public class Test {
   public static void main(String[] args) {
      Best b = new Best();
   }
}
```

and
/code/b/Best.java containing: package b;
public class Best { }
Which is the valid way to generate bytecode for all classes?

A. java /code/a/Test.java
B. javac –d /code /code/a/Test
C. java /code/a/Test.java /code/b/Best.java
D. java –cp /code a.Test
E. javac –d /code /code/a/Test.java /code/b/Best.java
F. javac –d /code /code/a/Test.java

Answer: E

NEW QUESTION 99
Given:

```
public class Employee {
   private String name;
   private String locality;
   /* the constructor, getter and setter methods code goes here */
}
```

and:

```
 8. List<Employee> roster = new ArrayList<>();
 9. long empCount = roster.stream()
10. /* insert code here */
11. System.out.print(empCount);
```

Which code, when inserted on line 10, prints the number of unique localities from the roster list?

A. .map(Employee::getLocality).distinct().count();
B. map(e > e.getLocality()).count();
C. .map(e > e.getLocality()).collect(Collectors.toSet()).count();
D. .filter(Employee::getLocality).distinct().count();

Answer: D

NEW QUESTION 100
Given the code fragment:
Path source = Paths.get(“/repo/a/a.txt”); Path destination = Paths.get(“/repo”); Files.move(source, destination); // line 1 Files.delete (source); // line 2
Assuming the source file and destination folder exist, what Is the result?

A. A java.nio.file.FileAlreadyExistsException is thrown on line 1.
B. A java.nio.file.NoSuchFileException is thrown on line 2.
C. A copy of /repo/a/a.txt is moved to the /repo directory and /repo/a/a.txt is deleted.
D. a.txt is renamed repo.

Answer: C

NEW QUESTION 101
Which interface in the java.util.function package can return a primitive type?

A. ToDoubleFunction
B. Supplier
C. BiFunction
D. LongConsumer

Answer: A

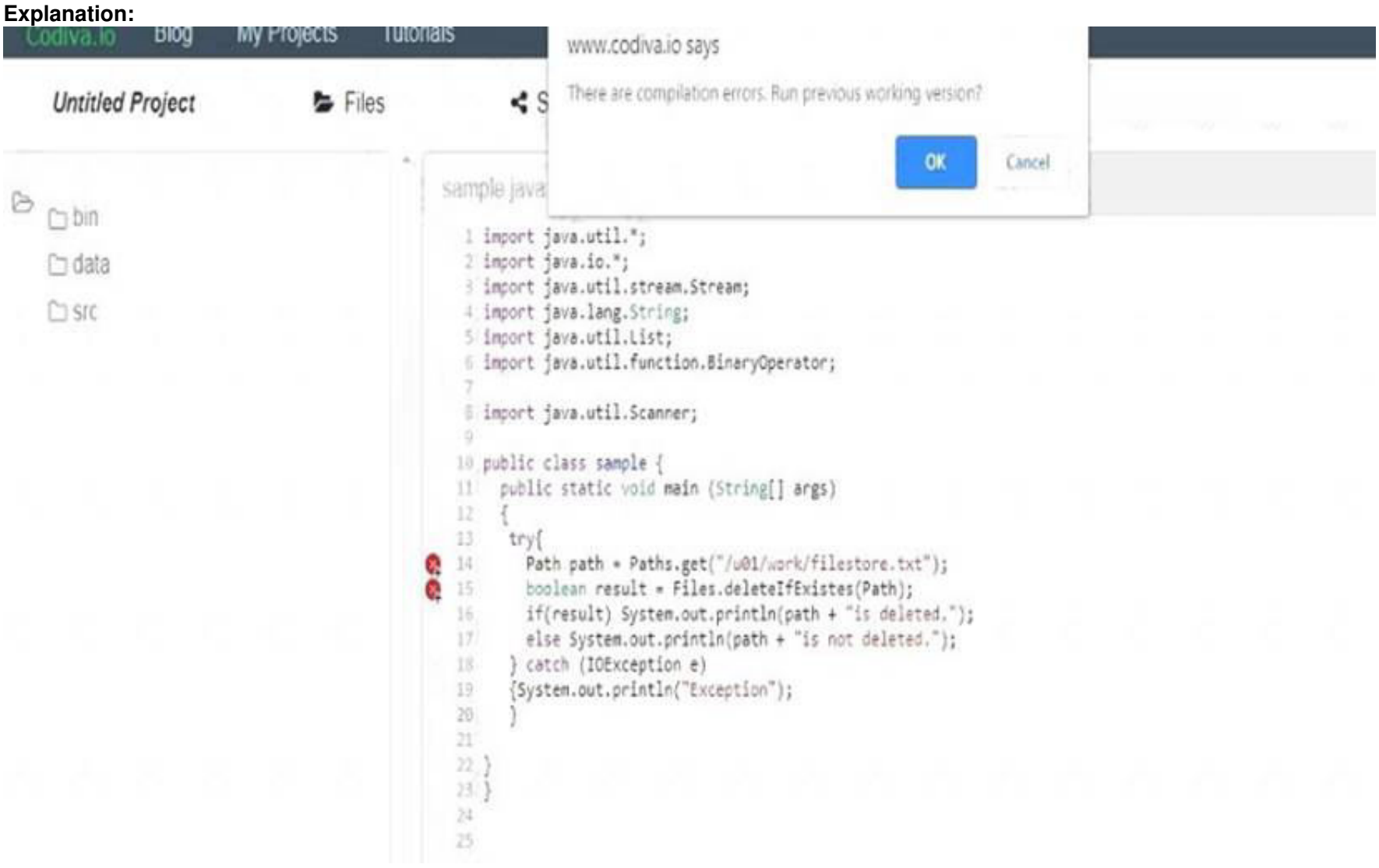
NEW QUESTION 106
Given:

```
public class Main {
   public static void main(String[] args) {
      try {
         Path path = Paths.get("/u01/work/filestore.txt");
         boolean result = Files.deleteIfExists(path);
         if(result) System.out.println(path + "is deleted.");
         else System.out.println(path + "is not deleted.");
      } catch(IOException e) {
         System.out.println("Exception");
      }
   }
}
```

Assume the file on path does not exist. What is the result?
A. The compilation fails.
B. /u01/work/filestore.txt is not deleted.
C. Exception
D. /u01/work/filestore.txt is deleted.

Answer: A

Explanation:



NEW QUESTION 110
Given:
List<String> longlist = List.of(“Hello”,”World”,”Beat”); List<String> shortlist = new ArrayList<>();
Which code fragment correctly forms a short list of words containing the letter “e”?

A.
```
longList.stream()
    .filter(w -> w.indexOf('e') != -1)
    .parallel()
    .forEach(w -> shortList.add(w));
```

B.
```
longList.parallelStream()
    .filter(w -> w.indexOf('e') != -1)
    .forEach(w -> shortList.add(w));
```

C.
```
shortList = longList.stream()
    .filter(w -> w.indexOf('e') != -1)
    .parallel()
    .collect(Collectors.toList());
```

D.
```
longList.stream()
    .filter(w -> w.indexOf('e') != -1)
    .parallel()
    .collect(shortlist);
```

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

Answer: C

NEW QUESTION 113
Given:

```
public class Over {
   public void analyze(Object[] o){
     System.out.println("I am an object array");
   }
   public void analyze(long[] l){
     System.out.println("I am an array");
   }
   public void analyze(Object o){
     System.out.println("I am an object");
   }
   public static void main(String[] args) {
     int[] nums = new int[10];
     new Over().analyze(nums);  // line 1
   }
}
```

What is the output?

A. I am an object array
B. The compilation fails due to an error in line 1.
C. I am an array
D. I am an object

Answer: D

NEW QUESTION 114
Given:

```
List<String> list = ... ;
list.forEach( x -> { System.out.println(x); } );
```

What is the type of x?

A. char
B. List<Character>
C. String
D. List<String>

Answer: C

NEW QUESTION 118
Given:

```
package test.t1;
public class A {
   public int x = 42;
   protected A() {}                    // line 1
}
```

and

```
package test.t2;
import test.t1.*;
public class B extends A {
   int x = 17;                         // line 2
   public B() { super(); }             // line 3
}
```

and

```
package test;
import test.t1.*;
import test.t2.*;
public class Tester {
   public static void main(String[] args) {
      A obj = new B();                 // line 4
      System.out.println(obj.x); // line 5
   }
}
```

What is the result?

A. 42
B. The compilation fails due to an error in line 4.
C. 17
D. The compilation fails due to an error in line 3.
E. The compilation fails due to an error in line 2.
F. The compilation fails due to an error in line 1.
G. The compilation fails due to an error in line 5.

Answer: A

NEW QUESTION 123
Given:

```
public class Tester {
   public static void main(String[] args) {
      byte x = 7, y = 6;
      // line 1
      System.out.println(z);
   }
}
```

Which expression when added at line 1 will produce the output of 1.17?

A. float z = (float)(Math.round((float)x/y*100)/100);
B. float z = Math.round((int)(x/y),2);
C. float z = Math.round((float)x/y,2);
D. float z = Math.round((float)x/y*100)/(float)100;

Answer: D

Explanation:

NEW QUESTION 127
Given the contents:

MessageBundle.properties file: message=Hello MessageBundle_en.properties file: message=Hello (en) MessageBundle_US.properties file: message=Hello (US) MessageBundle_en_US.properties file: message=Hello (en_US) MessageBundle_fr_FR.properties file: message=Bonjour
and the code fragment: Locale.setDefault(Locale.FRANCE);
Locale currentLocale = new Locale.Builder().setLanguage("en").build();
ResourceBundle messages = ResourceBundle.getBundle("MessageBundle", currentLocale); System.out. println(messages.getString("message"));
Which file will display the content on executing the code fragment?

A. MessageBundle_en_US.properties
B. MessageBundle_en.properties
C. MessageBundle_fr_FR.properties
D. MessageBundle_US.properties
E. MessageBundle.properties

Answer: C

NEW QUESTION 131
Given:

```
public class Main {
  public static void main(String[] args) {
    for(int i = 0; i < args.length; i++) {
      System.out.println(i + "). " + args[i]);
      switch(args[i]) {
        case "one":
          continue;
        case "two":
          i--;
          continue;
        default:
          break;
      }
    }
  }
}
```

executed with this command: java Main one two three What is the result?

A. 0). one
B. 0). one1). two2). three
C. The compilation fails.
D. It creates an infinite loop printing:0). one1). two1). two...
E. A java.lang.NullPointerException is thrown.

Answer: D

NEW QUESTION 134
Which code fragment compiles?

A.
```
Comparator comparator = new Comparator<?>() {
  public int compare(Integer i, Integer j) {
    return i.compareTo(j);
  }
};
```

B.
```
var comparator = new Comparator<>() {
  public int compare(Integer i, Integer j) {
    return i.compareTo(j);
  }
};
```

C.
```
Comparator<> comparator = new Comparator<Integer>() {
  public int compare(Integer i, Integer j) {
    return i.compareTo(j);
  }
};
```

D.
```
Comparator<Integer> comparator = new Comparator<>() {
  public int compare(Integer i, Integer j) {
    return i.compareTo(j);
  }
};
```

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

Answer: D

Explanation:

```
1  import java.io.*;
2  import java.util.*;
3  class abc {
4    public static void main(String[] args) {
5
6     Comparator<Integer> comparator = new Comparator<>() {
7       public int compare(Integer i, Integer j) {
8         return i.compareTo(j);
9       }
10    };
11
12   }
13 }
14
```

NEW QUESTION 138
Given:

```
public class Price {
   private final double value;
   public Price(String value) {
      this(Double.parseDouble(value));
   }
   public Price(double value) {
      this.value = value;
   }
   public Price () {}
   public double getValue() { return value; }
   public static void main(String[] args) {
      Price p1 = new Price("1.99");
      Price p2 = new Price(2.99);
      Price p3 = new Price();
      System.out.println(p1.getValue()+","+p2.getValue()+","+p3.getValue());
  }
}
```

What is the result?

A. The compilation fail
B. 1.99,2.99,0
C. 1.99,2.99,0.0
D. 1.99,2.99

Answer: A

Explanation:

```
1
2  public class Price {
3    private final double value;
4    public Price(String value) {
5      this(Double.parseDouble (value));
6    }
7    public Price(double value) {
8      this.value = value;
   variable value might not have been initialized
10   public Price (){}
11   public double getValue() { return value; }
12   public static void main (String[] args) {
13     Price p1 = new Price("1.99");
14     Price p2 = new Price("2.99");
15     Price p3 = new Price();
16     System.out.println(p1.getValue()+","+p2.getValue()+","+p3.getValue());
17   }
18 }
```

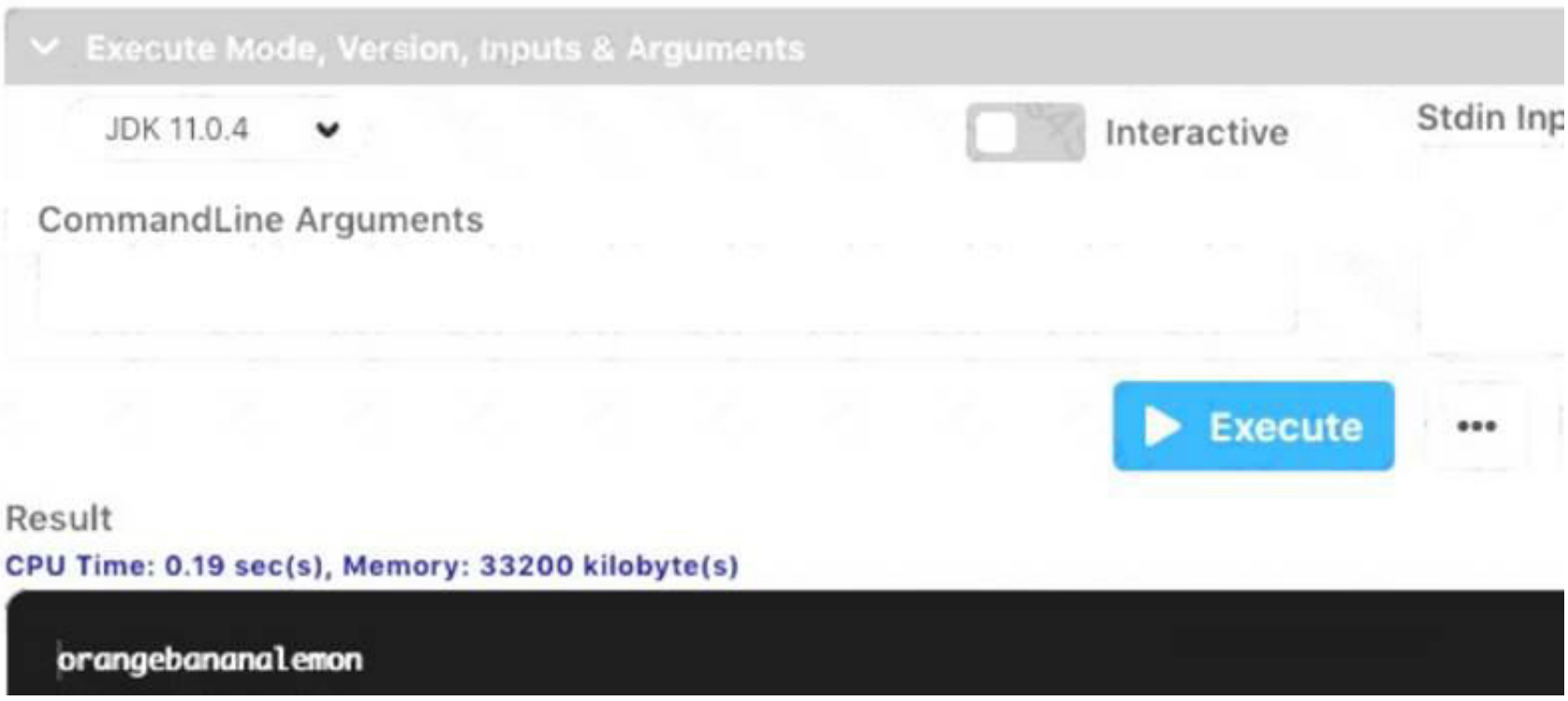
NEW QUESTION 140
Given:
var fruits = List.of(“apple”, “orange”, “banana”, “lemon”);
You want to examine the first element that contains the character n. Which statement will accomplish this?

A. String result = fruits.stream().filter(f > f.contains(“n”)).findAny();
B. fruits.stream().filter(f > f.contains(“n”)).forEachOrdered(System.out::print);
C. Optional<String> result = fruits.stream().filter(f > f.contains (“n”)).findFirst ();
D. Optional<String> result = fruits.stream().anyMatch(f > f.contains(“n”));

Answer: B

Explanation:

```
1  import java.io.*;
2  import java.util.*;
3  public class abc {
4    public static void main(String[] args) {
5
6      var fruits = List.of("apple", "orange", "banana", "lemon");
7
8  fruits.stream().filter(f -> f.contains("n")).forEachOrdered(System.out::print);
9
10   }
11 }
12
```



NEW QUESTION 144
Given this enum declaration:

```
1. enum Alphabet {
2.     A, B, C
3.
4. }
```

Examine this code: System.out.println(Alphabet.getFirstLetter());
What code should be written at line 3 to make this code print A?

A. final String getFirstLetter() { return A.toString(); }
B. static String getFirstLetter() { return Alphabet.values()[1].toString(); }
C. static String getFirstLetter() { return A.toString(); }
D. String getFirstLetter() { return A.toString(); }

Answer: C

NEW QUESTION 149
.....

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NEW QUESTION 1
Given:

```
public interface Builder {
    public A build(String str);
}
```

and

```
public class BuilderImpl implements Builder {
    @Override
    public B build(String str) {
        return new B(str);
    }
}
```

Assuming that this code compiles correctly, which three statements are true? (Choose three.)

A. B cannot be abstract.
B. B is a subtype of A.
C. A cannot be abstract.
D. A cannot be final.
E. B cannot be final.
F. A is a subtype of B.

Answer: ABD

NEW QUESTION 2
Given:

```
public class Tester {
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder(5);
        sb.append("HOWDY");
        sb.insert(0, ' ');
        sb.replace(3, 5, "LL");
        sb.insert(6, "COW");
        sb.delete(2, 7);
        System.out.println(sb.length());
    }
}
```

What is the result?

A. 4
B. 3
C. An exception is thrown at runtime.
D. 5

Answer: D

Explanation:

```
6  public class Tester {
7      public static void main(String[] args) {
8          StringBuilder sb = new StringBuilder (5);
9          sb.append ("HOWDY") ;
10         sb.insert (0, ' ');
11         sb.replace(3, 5, "LL");
12         sb.insert (6, ""COW");
13         sb.delete(2, 7);
14         System.out.println(sb.length());
15     }
16 }
```

(command line arguments)

COMPILE & EXECUTE | PASTE SOURCE

Successfully compiled /tmp/java_82Tlan/Tester.java <-- main method

5

NEW QUESTION 3
Assuming the Widget class has a getPrice method, this code does not compile:

```
List widgets = List.of(new Widget("Basic Widget", 19.55), // line 1
                       new Widget("Enhanced Widget", 35.00),
                       new Widget("Luxury Edition Widget", 55.45));
Stream widgetStream = widgets.stream();                    // line 4
widgetStream.filter(a -> a.getPrice() > 20.00)             // line 5
            .forEach(System.out::println);
```

Which two statements, independently, would allow this code to compile? (Choose two.)

A. Replace line 5 with widgetStream.filter(a > ((Widget)a).getPrice() > 20.00).
B. Replace line 1 with List<Widget> widgetStream = widgets.stream();.
C. Replace line 5 with widgetStream.filter((Widget a) > a.getPrice() > 20.00).
D. Replace line 4 with Stream<Widget> widgetStream = widgets.stream();.

Answer: AD

NEW QUESTION 4
A bookstore's sales are represented by a list of Sale objects populated with the name of the customer and the books they purchased.
public class Sale { private String customer;
private List<Book> items;
// constructor, setters and getters not shown
}
public class Book { private String name; private double price;
// constructor, setters and getters not shown
}
Given a list of Sale objects, tList, which code fragment creates a list of total sales for each customer in ascending order?

A.
```
List<String> totalByUser = tList.stream()
     .collect(flatMapping(t -> t.getItems().stream(),
              groupingBy(Sale::getCustomer,
              summingDouble(Book::getPrice))))
     .entrySet().stream()
     .sorted(Comparator.comparing(Entry::getValue))
     .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
```

B.
```
List<String> totalByUser = tList.stream()
    .collect(groupingBy(Sale::getCustomer,
             flatMapping(t -> t.getItems().stream(),
             summingDouble(Book::getPrice))))
    .sorted(Comparator. comparing (Entry::getValue))
    .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
```

C.
```
List<String> totalByUser = tList.stream()
    .collect(groupingBy(Sale::getCustomer,
             flatMapping(t -> t.getItems().stream(),
             summingDouble(Book::getPrice))))
    .entrySet().stream()
    .sorted(Comparator.comparing(Entry::getValue))
    .collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
```

D.
```
List<String> totalByUser = tList.stream()
.collect(flatMapping(t -> t.getItems().stream(),
         groupingBy(Sale::getCustomer,
         summingDouble(Book::getPrice))))
.sorted(Comparator.comparing (Entry::getValue))
.collect(mapping(e -> e.getKey() + ":" + e.getValue(),toList()));
```

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

Answer: C

NEW QUESTION 5
Given:

```
import java.time.LocalDate;
import static java.time.DayOfWeek.*;
public class Main {
  public static void main(String[] args) {
  var today = LocalDate.now().with(TUESDAY).getDayOfWeek();
    switch(today) {
      case SUNDAY:
      case SATURDAY:
        System.out.println("Weekend");
        break;
      case MONDAY:  FRIDAY:
        System.out.println("Working");
      default:
        System.out.println("Unknown");
    }
  }
}
```

What is the result?

A. WorkingUnknown
B. Unknown
C. TuesdayUnknown
D. The compilation fails.
E. Tuesday
F. Working

Answer: B

Explanation:

NEW QUESTION 6
Given:

```
public class Tester {
    private int x;
    private static int y;
    public static void main(String[] args) {
        Tester t1 = new Tester();
        t1.x = 2;
        Tester.y = 3;
        Tester t2 = new Tester();
        t2.x = 4;
        t2.y = 5;
        System.out.println(t1.x+","+t1.y);
        System.out.println(t2.x+","+Tester.y);
        System.out.println(t2.x+","+t1.y);
    }
}
```

What is the result?

A. 2,34,34,5
B. 2,34,54,5
C. 2,54,54,5
D. 2,34,54,3

Answer: C

Explanation:

CE	DOWNLOAD ZIP	default
	2,5 4,5 4,5	

NEW QUESTION 7
Given:

```
public class Tester {
   public static void main(String[] args) {
      char letter = 'b';
      int i = 0;
      switch(letter) {
         case 'a':
            i++;
            break;
         case 'b':
            i++;
         case 'c' | 'd': // line 1
            i++;
         case 'e':
            i++;
            break;
         case 'f':
            i++;
            break;
         default:
            System.out.print(letter);
      }
      System.out.println(i);
   }
}
```

What is the result?

A. b1
B. 2
C. b2
D. 1
E. b3
F. 3
G. The compilation fails due to an error in line 1.

Answer: F

Explanation:

Result
CPU Time: 0.23 sec(s), Memory: 32708 kilobyte(s)

```
b3
```

NEW QUESTION 8
Examine this excerpt from the declaration of the java.se module:

```
module java.se {
   ...
   requires transitive java.sql;
   ...
}
```

What does the transitive modifier mean?

A. Only a module that requires the java.se module is permitted to require the java.sql module.
B. Any module that requires the java.se module does not need to require the java.sql module.
C. Any module that attempts to require the java.se module actually requires the java.sql module instead.
D. Any module that requires the java.sql module does not need to require the java.se module.

Answer: A

NEW QUESTION 9
Given:

```
package A;
class Test {
  String name;
  public Test(String name) {
    this.name = name;
  }
  public String toString() {
    return name;
  }
}
```

and

```
package B;
import A.Test;
public class Main {
  public static void main(String[] args) {
    Test test = new Test("Student");
    System.out.println(test);
  }
}
```

What is the result?

A. null
B. nothing
C. It fails to compile.
D. java.lang.IllegalAccessException is thrown.
E. Student

Answer: C

NEW QUESTION 10
Given:

```
int arr[][] = {{5,10},{8,12},{9,3}};
long count = Stream.of(arr)
                   .flatMapToInt(IntStream::of)
                   .map(n -> n + 1)
                   .filter(n -> (n % 2 == 0))
                   .peek(System.out::print)
                   .count();
System.out.println(" " + count);
```

What is the result?

A. 6910 3
B. 10126 3
C. 3
D. 6104 3

Answer: D

Explanation:

```java
import java.util.*;
import java.io.*;
import java.lang.Thread;
import java.util.ArrayList;
import java.util.LinkedList;
import java.util.List;
import java.util.function.Consumer;
import java.util.stream.Stream;
import java.util.stream.IntStream;


public class Main {

   public static void main(String[] args) {
      int arr[][] = {{5,10}, {8,12}, {9,3}};
      long count = Stream.of(arr)
          .flatMapToInt(IntStream::of)
          .map (n -> n + 1)
          .filter(n -> (n % 2 == 0))
          .peek(System.out::print)
          .count();
      System.out.println(" " + count);
   }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

CommandLine Arguments

Result

CPU Time: 0.32 sec(s), Memory: 34220 kilobyte(s)

```
6104 3
```

NEW QUESTION 10

Given:

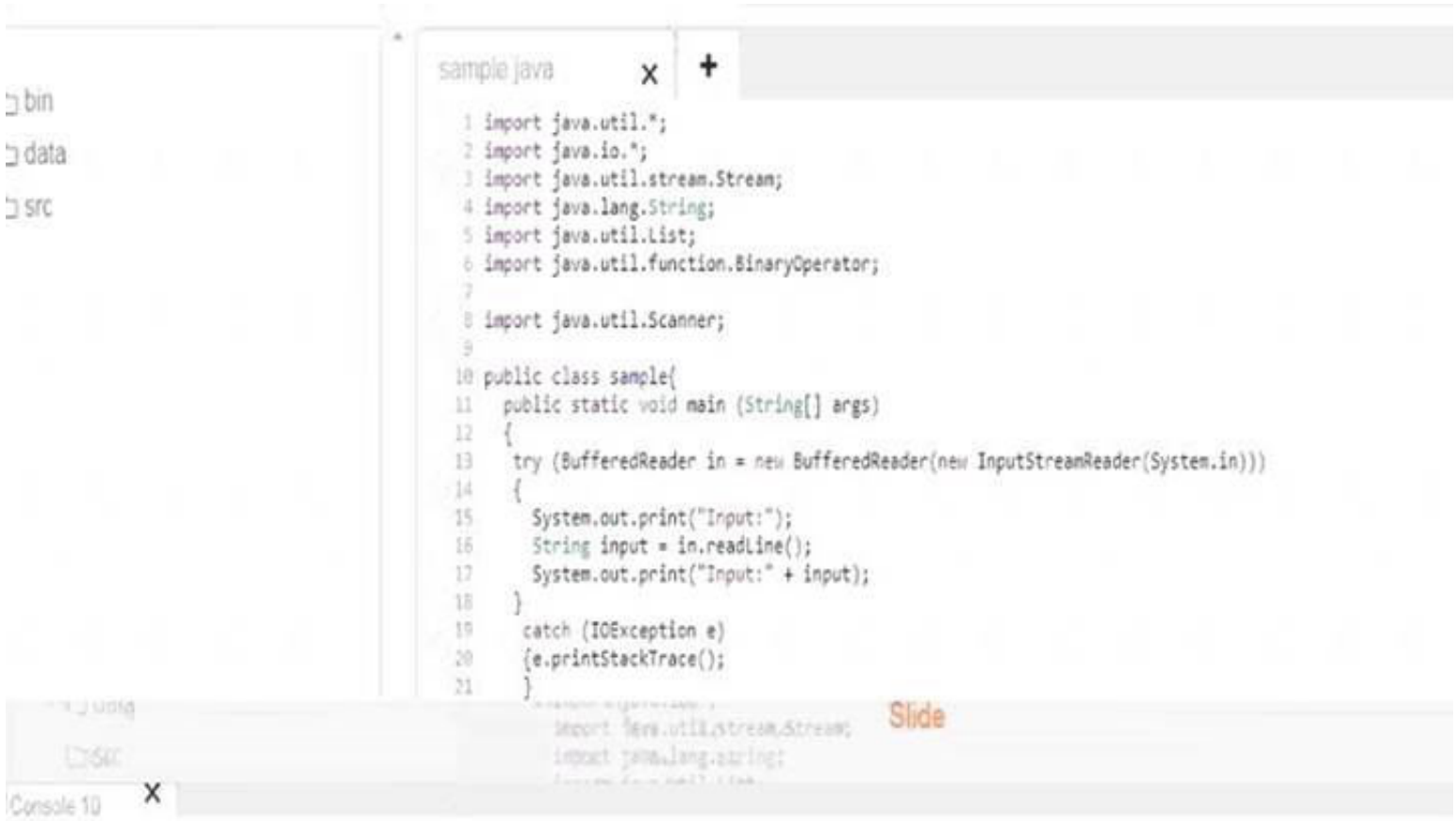
```
public class Main {
   public static void main(String[] args) {
      try(BufferedReader in = new BufferedReader(new InputStreamReader(System.in))) {
         System.out.print("Input: ");
         String input = in.readLine();
         System.out.println("Echo: " + input);
      } catch (IOException e) {
         e.printStackTrace();
      }
   }
}
```

And the command: java Main Helloworld What is the result ?

A. Input: Echo:
B. Input: Helloworld Echo: Helloworld
C. Input:Then block until any input comes from System.in.
D. Input:Echo: Helloworld
E. A NullPointerException is thrown at run time.

Answer: C

Explanation:



NEW QUESTION 13
Given:

```
public class SerializedMessage implements Serializable {
   String message;
   LocalDateTime createdTime;
   transient LocalDateTime updatedDateTime;;
   SerializedMessage(String message) {
      this.message = message;
      this.createdTime = LocalDateTime.now();
   }
   private void readObject (ObjectInputStream in) {
      try {
         in.defaultReadObject();
         this.updatedDateTime = LocalDateTime.now();
      } catch (IOException |ClassNotFoundException e) {
        e.printStackTrace();
      }
   }
}
```

When is the readObject method called?

A. before this object is deserialized
B. after this object is deserialized
C. before this object Is serialized
D. The method is never called.
E. after this object is serialized

Answer: B

NEW QUESTION 14
Given:

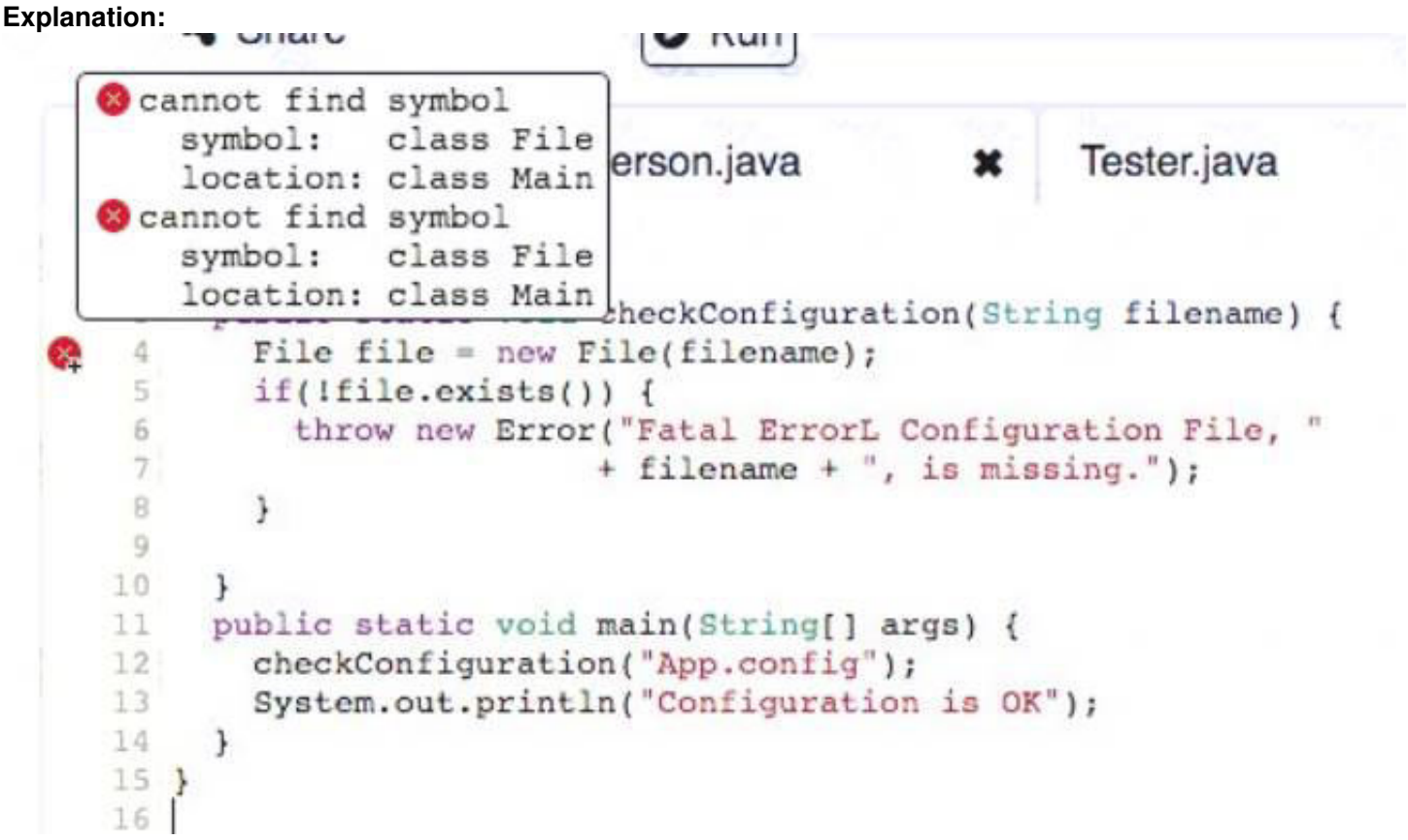
```
public class Main {

  public static void checkConfiguration(String filename) {
    File file = new File(filename);
    if(!file.exists()) {
      throw new Error("Fatal Error: Configuration File, "
            + filename + ", is missing.");
    }
  }

  public static void main(String[] args) {
    checkConfiguration("App.config");
    System.out.println("Configuration is OK");
  }
}
```

If file "App.config" is not found, what is the result?

A. Configuration is OK
B. The compilation fails.
C. Exception in thread "main" java.lang.Error:Fatal Error: Configuration File, App.config, is missing.
D. nothing

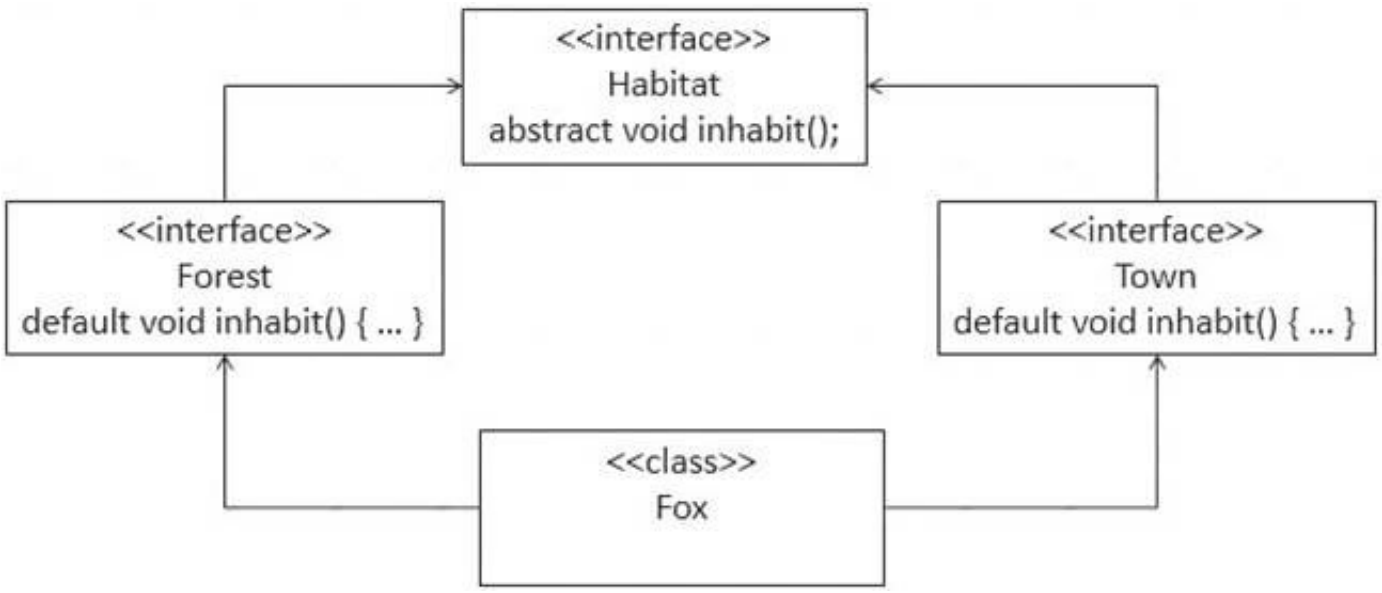
Answer: B

Explanation:



NEW QUESTION 17

Given:



Which statement is true about the Fox class?

A. Fox class does not have to override inhabit method, so long as it does not try to call it.
B. Fox class does not have to override the inhabit method if Forest and Town provide compatible implementations.
C. Fox class must implement either Forest or Town interfaces, but not both.
D. The inhabit method implementation from the first interface that Fox implements will take precedence.
E. Fox class must provide implementation for the inhabit method.

Answer: B

NEW QUESTION 22
Given the code fragment:

```
public static void main(String[] args) {
    List<Integer> even = List.of();
    even.add(0, -1);
    even.add(0, -2);
    even.add(0, -3);
    System.out.println(even);
}
```

What is the output?

A. The compilation fail
B. [-1, -2, -3]
C. [-3, -2, -1]
D. A runtime exception is thrown.

Answer: D

NEW QUESTION 26
Given:
LocalDate d1 = LocalDate.of(1997,2,7); DateTimeFormatter dtf = DateTimeFormatter.ofPattern(/*insert code here*/); System.out.println(dtf.format (d1));
Which pattern formats the date as Friday 7th of February 1997?

A. “eeee dd+”th of”+ MMM yyyy”
B. “eeee dd'th of' MMM yyyy”
C. “eeee d+”th of”+ MMMM yyyy”
D. “eeee d’th of’ MMMM yyyy”

Answer: B

NEW QUESTION 29
Given:

```
public class Test{
    private int num = 1;
    private int div = 0;

    public void divide() {
        try {
            num = num / div;
            System.out.print("Exception");
        }
        catch(ArithmeticException ae) { num = 100; }
        catch(Exception e) { num = 200; }
        finally { num = 300; }
        System.out.print(num);
    }
    public static void main(String args[])
    {
        Test test = new Test();
        test.divide();
    }
}
```

What is the output?

A. 300
B. Exception
C. 200
D. 100

Answer: A

Explanation:

```java
public class Test{
    private int num = 1;
    private int div = 0;

    public void divide() {
        try {
            num = num / div;
            System.out.print("Exception");
        }
        catch(ArithmeticException ae) { num = 100; }
        catch(Exception e) { num = 200; }
        finally { num = 300; }
        System.out.print(num);
    }
    public static void main(String args[])
    {
        Test test = new Test();
        test.divide();
    }
}
```

NEW QUESTION 34
Given:

```
public class X {
  private Collection collection;
  public void set(Collection collection) {
    this.collection = collection;
  }
}
```

and

```
public class Y extends X {
  public void set(Map<String,String> map) {
    super.set(map); // line 1
  }
}
```

Which two lines can replace line 1 so that the Y class compiles? (Choose two.)

A. map.forEach((k, v) -> set(v)));
B. set(map.values());
C. super.set(List<String> map)
D. super.set(map.values());
E. set(map)

Answer: BD

NEW QUESTION 39

Given:

```
public class DNASynth {
    int aCount;
    int tCount;
    int cCount;
    int gCount;

    DNASynth(int a, int tCount, int c, int g){
        // line 1
    }
    int setCCount(int c){
        return c;
    }
    void setGCount(int gCount){
        this.gCount = gCount;
    }
}
```

Which two lines of code when inserted in line 1 correctly modifies instance variables? (Choose two.)

A. setCCount(c) = cCount;
B. tCount = tCount;
C. setGCount(g);
D. cCount = setCCount(c);
E. aCount = a;

Answer: BE

NEW QUESTION 40
Given:

```
public class FunctionalInterfaceTest {
   public static void main(String[] args) {
      List fruits = Arrays.asList("apple", "orange", "banana");
      Consumer<String> c = System.out::print;
      Consumer<String> output = c.andThen(x -> System.out.println(":" + x.toUpperCase
()));
      fruits.forEach(output);
   }
}
```

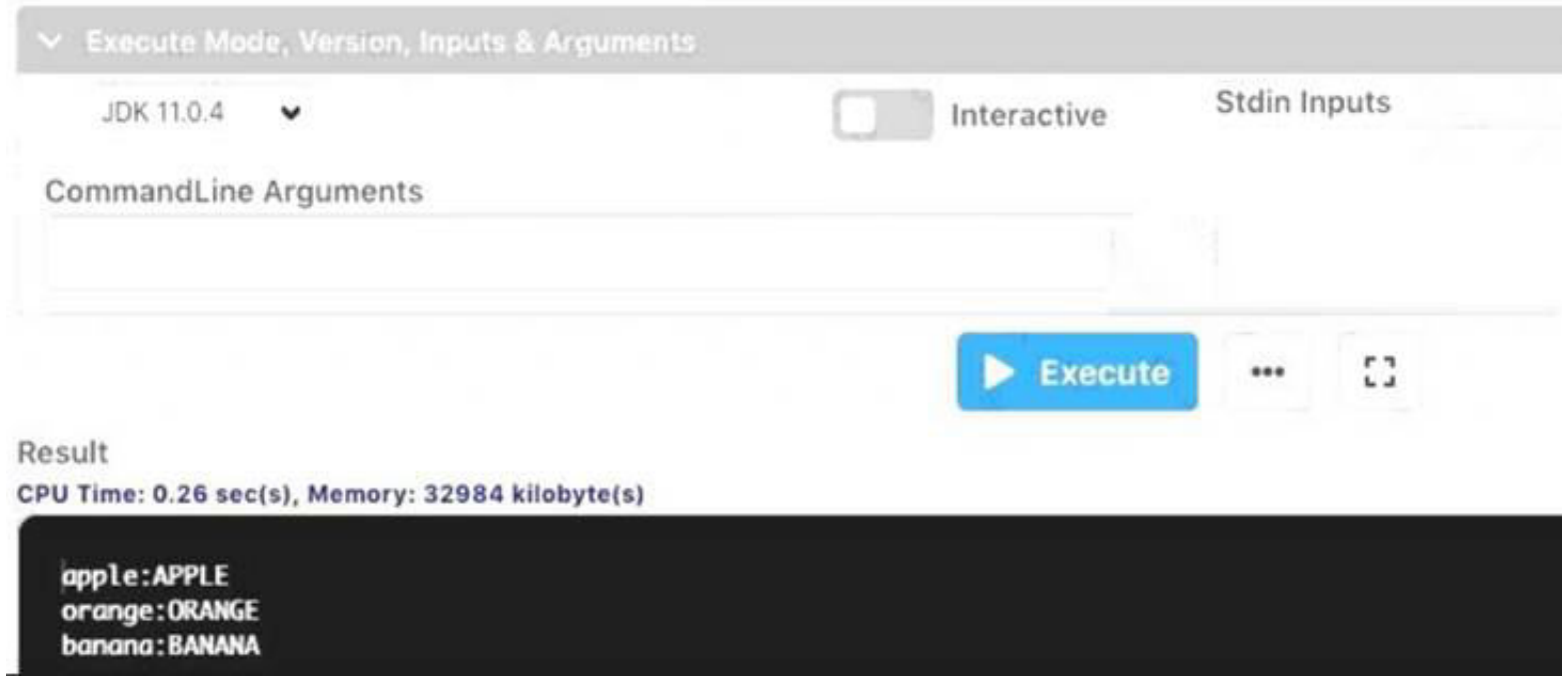
What is the output?

A. :APPLE:ORANGE:BANANAappleorangebanana
B. :APPLE:ORANGE:BANANA
C. APPLE:apple ORANGE:orange BANANA:banana
D. appleorangebanana:APPLE:ORANGE:BANANA
E. apple:APPLE orange:ORANGE banana:BANANA

Answer: E

Explanation:

```java
import java.util.*;
import java.io.*;
import java.lang.Thread;
import java.util.ArrayList;
import java.util.LinkedList;
import java.util.List;
import java.util.function.Consumer;

public class FunctionalInterfaceTest {
 public static void main (String[] args) {
        List fruits = Arrays.asList("apple", "orange", "banana");
        Consumer<String> c = System.out::print;
        Consumer<String> output = c.andThen(x -> System.out.println(":" + x.toUpperCase()));

   fruits.forEach(output);

  }
}
```



NEW QUESTION 42
A company has an existing sales application using a Java 8 jar file containing packages: com.company.customer; com.company.customer.orders; com.company.customer.info; com.company.sales; com.company.sales.leads; com.company.sales.closed; com.company.orders; com.company.orders.pending; com.company.orders.shipped.
To modularize this jar file into three modules, customer, sales, and orders, which module-info.java would be correct?
A)

```
module com.company.customer {
   opens com.company.customer;
}
module com.company.sales{
   opens com.company.sales;
}
module com.company.orders {
   opens com.company.orders;
}
```

B)

```
module com.company.customer {
   exports com.company.customer;
}
module com.company.sales{
   exports com.company.sales;
}
module com.company.orders{
   exports com.company.orders;
}
```

C)

```
module com.company.customer {
   requires com.company.customer;
}
module com.company.sales{
   requires com.company.sales;
}
module com.company.orders {
   requires com.company.orders;
}
```

D)

```
module com.company.customer {
   provides com.company.customer;
}
module com.company.sales{
   provides com.company.sales;
}
module com.company.orders {
   provides com.company.orders;
}
```

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

Answer: C

NEW QUESTION 46
Which two describe reasons to modularize the JDK? (Choose two.)

A. easier to understand the Java language
B. improves security and maintainability
C. easier to expose implementation details
D. improves application robustness
E. easier to build a custom runtime linking application modules and JDK modules

Answer: BD

NEW QUESTION 50
Which statement about a functional interface is true?

A. It must be defined with the public access modifier.
B. It must be annotated with @FunctionalInterface.
C. It is declared with a single abstract method.
D. It is declared with a single default method.
E. It cannot have any private methods and static methods.

Answer: C

NEW QUESTION 55
Which two statements correctly describe capabilities of interfaces and abstract classes? (Choose two.)

A. Interfaces cannot have protected methods but abstract classes can.
B. Both interfaces and abstract classes can have final methods.
C. Interfaces cannot have instance fields but abstract classes can.
D. Interfaces cannot have static methods but abstract classes can.
E. Interfaces cannot have methods with bodies but abstract classes can.

Answer: AC

NEW QUESTION 57
Given:

```
public class Hello {
   class Greeting {
      void sayHi() {
         System.out.println("Hello world");
      }
   }
   public static void main(String... args) {
      // Line 1
   }
}
```

What code must you insert on Line 1 to enable the code to print Hello world?

A. Hello.Greeting myG = new Hello.Greeting() myG.sayHi();
B. Hello myH = new Hello();Hello.Greeting myG = myH.new Greeting(); myG.sayHi();
C. Hello myH = new Hello();Hello.Greeting myG = myH.new Hello.Greeting(); myG.sayHi();
D. Hello myH = new Hello(); Greeting myG = new Greeting(); myG.sayHi ();

Answer: B

NEW QUESTION 61
Given:

String originalPath = “data\\projects\\a-project\\..\\..\\another-project”; Path path = Paths.get(originalPath); System.out.print(path.normalize());
What is the result?

A. data\another-project
B. data\projects\a-project\another-project
C. data\\projects\\a-project\\..\\..\\another-project
D. data\projects\a-project\..\..\another-project

Answer: D

Explanation:

```
1  import java.util.*;
2  import java.io.*;
3  import java.nio.file.*;
4
5  public class Test {
6
7    public static void main(String[] args) {
8      String originalPath = "data\\projects\\a-project\\..\\..\\another-project";
9  Path path = Paths.get(originalPath);
10 System.out.print(path.normalize());
11   }
12 }
```

NEW QUESTION 65
Assume ds is a DataSource and the EMP table is defined appropriately.

```
try (Connection conn = ds.getConnection();
     PreparedStatement ps = conn.prepareStatement(“INSERT INTO EMP VALUES(?, ?, ?)”)) {
     ps.setObject(1, 101, JDBCType.INTEGER);
     ps.setObject(2, “SMITH”, JDBCType.VARCHAR);
     ps.setObject(3, “HR”, JDBCType.VARCHAR);
     ps.executeUpdate();
     ps.setInt(1, 102);
     ps.setString(2, “JONES”);
     ps.executeUpdate();
}
```

What does executing this code fragment do?

A. inserts two rows (101, 'SMITH', 'HR') and (102, 'JONES', NULL)
B. inserts two rows (101, 'SMITH', 'HR') and (102, 'JONES', 'HR')
C. inserts one row (101, 'SMITH', 'HR')
D. throws a SQLException

Answer: C

NEW QUESTION 67
Given:

```
public class Person {
   private String name = "Joe Bloggs";
   public Person(String name) {
      this.name = name;
   }
   public String toString() {
      return name;
   )
}
```

and

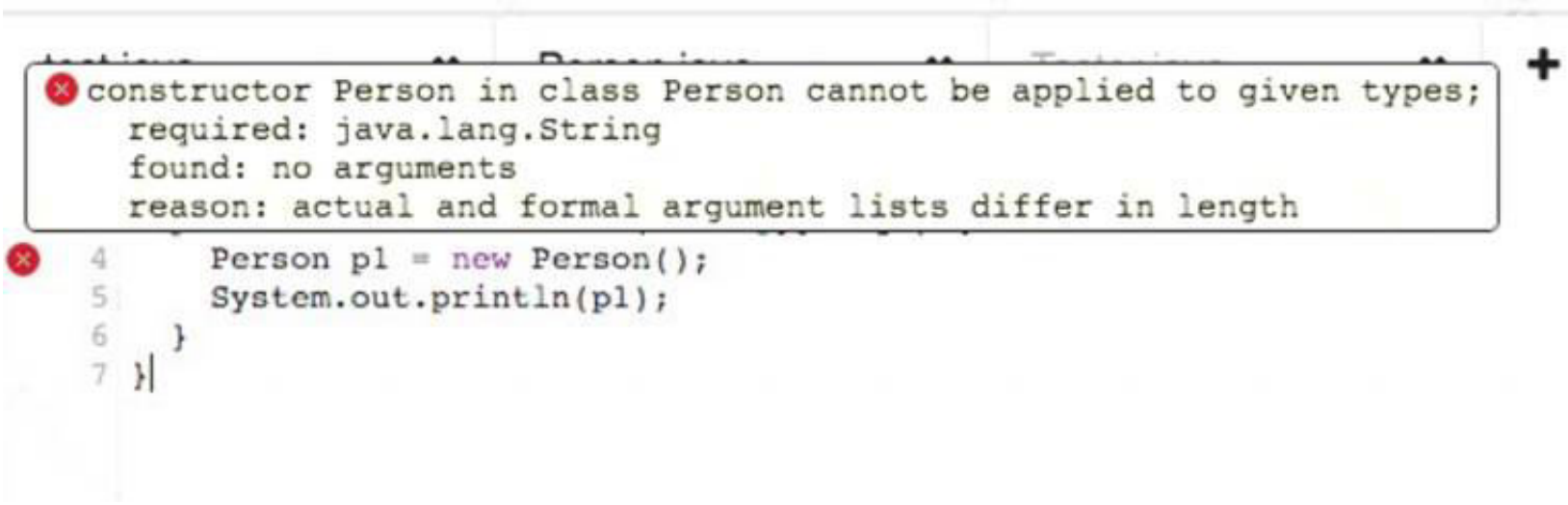
```
public class Tester {
   public static void main(String[] args) {
      Person p1 = new Person(); // line 1
      System.out.println(p1);
   }
}
```

What is the result?

A. null
B. Joe Bloggs
C. The compilation fails due to an error in line 1.
D. p1

Answer: C

Explanation:



NEW QUESTION 70
Which three guidelines are used to protect confidential information? (Choose three.)

A. Limit access to objects holding confidential information.
B. Clearly identify and label confidential information.
C. Manage confidential and other information uniformly.
D. Transparently handle information to improve diagnostics.
E. Treat user input as normal information.
F. Validate input before storing confidential information.
G. Encapsulate confidential information.

Answer: ADF

NEW QUESTION 74
Which two are successful examples of autoboxing? (Choose two.)

A. String a = “A”;
B. Integer e = 5;
C. Float g = Float.valueOf(null);
D. Double d = 4;
E. Long c = 23L;
F. Float f = 6.0;

Answer: AB

NEW QUESTION 77
Which describes an aspect of Java that contributes to high performance?

A. Java prioritizes garbage collection.
B. Java has a library of built-in functions that can be used to enable pipeline burst execution.
C. Java monitors and optimizes code that is frequently executed.
D. Java automatically parallelizes code execution.

Answer: C

NEW QUESTION 82
Given:

```
import java.util.function.BiFunction;
public class Pair<T> {
    final BiFunction<T, T, Boolean> validator;
    T left = null;
    T right = null;
    private Pair() {
      validator=null;
    }
    Pair(BiFunction<T, T, Boolean> v, T x, T y) {
        validator = v;
        set(x, y);
    }
    void set(T x, T y) {
        if (!validator.apply(x, y)) throw new IllegalArgumentException();
        setLeft(x);
        setRight(y);
    }
    void setLeft(T x) {
        left = x;
    }
    void setRight(T y) {
        right = y;
    }
    final boolean isValid() {
        return validator.apply(left, right);
    }
}
```

It is required that if p instanceof Pair then p.isValid() returns true.
Which is the smallest set of visibility changes to insure this requirement is met?

A. setLeft and setRight must be protected.
B. left and right must be private.
C. isValid must be public.
D. left, right, setLeft, and setRight must be private.

Answer: B

NEW QUESTION 85
Given:

```
public class Main {
   public static void main(String[] args) {
      Consumer consumer = msg -> System.out::print; // line 1
      consumer.accept("Hello Lambda !");
   }
}
```

This code results in a compilation error.
Which code should be inserted on line 1 for a successful compilation?

A. Consumer consumer = msg -> { return System.out.print(msg); };
B. Consumer consumer = var arg > {System.out.print(arg);};
C. Consumer consumer = (String args) > System.out.print(args);
D. Consumer consumer = System.out::print;

Answer: D

Explanation:

```java
import java.util.*;
import java.io.*;
import java.nio.file.*;
import java.util.List;
import java.util.function.Consumer;

public class Main {

  public static void main(String[] args) {
    Consumer consumer = System.out::print;
    consumer.accept("Hello Lambda !");
  }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

CommandLine Arguments

Result

CPU Time: 0.16 sec(s), Memory: 32896 kilobyte(s)

```
Hello Lambda !
```

NEW QUESTION 90
Given:

```
1. public class Main {
2.     public static void greet(String... args) {
3.         System.out.print("Hello ");
4.         for (String arg : args) {
5.             System.out.println(arg);
6.         }
7.     }
8.     public static void main(String[] args) {
9.         Main c = null;
10.        c.greet();
11.    }
12. }
```

What is the result?

A. NullPointerException is thrown at line 4.
B. NullPointerException is thrown at line 10.
C. A compilation error occurs.
D. Hello

Answer: D

Explanation:

Console 4 Console 5

```
hello
Completed with exit code: 0
```

NEW QUESTION 95
Given:

```
public interface A {
    public Iterable a();
}
public interface B extends A {
    public Collection a();
}
public interface C extends A {
    public Path a();
}
public interface D extends B, C {
}
```

Why does D cause a compilation error?

A. D inherits a() only from C.
B. D inherits a() from B and C but the return types are incompatible.
C. D extends more than one interface.
D. D does not define any method.

Answer: B

NEW QUESTION 97
Given:

```
package test;
import java.time.*;
public class Diary {
   private LocalDate now = LocalDate.now();
   public LocalDate getDate() {
      return now;
   }
}
```

and

```
package test;
public class Tester {
   public static void main(String[] args) {
      Diary d = new Diary();
      System.out.println(d.getDate());
   }
}
```

Which statement is true?

A. Class Tester does not need to import java.time.LocalDate because it is already visible to members of the package test.
B. All classes from the package java.tim
C. are loaded for the class Diary.
D. Only LocalDate class from java.time package is loaded.
E. Tester must import java.time.LocalDate in order to compile.

Answer: A

NEW QUESTION 102
Given this requirement:
Module vehicle depends on module part and makes its com.vehicle package available for all other modules. Which module-info.java declaration meets the requirement?

A

```
module vehicle{
    requires part;
    exports com.vehicle;
}
```

B

```
module vehicle {
    requires part;
    uses com.vehicle;
}
```

C

```
module vehicle{
   requires part;
   exports com.vehicle to part;
}
```

D

```
module vehicle {
   requires com.vehicle;
   exports part;
}
```

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

Answer: A

NEW QUESTION 104
Given:

```
public class Main {
  public static void main(String[] args) {
    try (BufferedReader br = new BufferedReader(new InputStreamReader(System.in));) {
      String input = br.readLine();
      System.out.println ("Input String was: " + input);
    } catch (IOException e) {
      e.printStackTrace();
    }
  }
}
```

Which is true?

A. System.out is the standard output strea
B. The stream is open only when System.out is called.
C. System.in cannot reassign the other stream.
D. System.out is an instance of java.io.OutputStream by default.
E. System.in is the standard input strea
F. The stream is already open.

Answer: D

NEW QUESTION 108
Given:
var data = new ArrayList<>(); data.add("Peter");
data.add(30); data.add("Market Road"); data.set(1, 25); data.remove(2); data.set(3, 1000L); System.out.print(data); What is the output?

A. [Market Road, 1000]
B. [Peter, 30, Market Road]
C. [Peter, 25, null, 1000]
D. An exception is thrown at run time.

Answer: D

Explanation:

```
Console 1
Exception in thread "main" java.lang.IndexOutOfBoundsException: Index 3 out of bounds for length 2
        at java.base/jdk.internal.util.Preconditions.outOfBounds(Preconditions.java:64)
        at java.base/jdk.internal.util.Preconditions.outOfBoundsCheckIndex(Preconditions.java:70)
        at java.base/jdk.internal.util.Preconditions.checkIndex(Preconditions.java:248)
        at java.base/java.util.Objects.checkIndex(Objects.java:372)
        at java.base/java.util.ArrayList.set(ArrayList.java:472)
        at abc.main(abc.java:13)

Completed with exit code: 1
```

NEW QUESTION 113
Given:

```
public class Person {
   private String name;
   public Person(String name) {
      this.name = name;
   }
   public String toString() {
      return name;
   }
}
```

and

```
public class Tester {
   public static void main(String[] args) {
      Person p = null;
      checkPerson(p);
      System.out.println(p);
      p = new Person("Mary");
      checkPerson(p);
      System.out.println(p);
   }
   public static Person checkPerson(Person p) {
      if (p == null) {
         p = new Person("Joe");
      }else{
         p = null;
      }
      return p;
   }
}
```

What is the result?

A. JoeMarry
B. Joenull
C. nullnull
D. nullMary

Answer: D

Explanation:

```
Console 1   Console 2   Console 3
null
Mary

Completed with exit code: 0
```

NEW QUESTION 118
Which is a proper JDBC URL?

A. jdbe.mysql.com://localhost:3306/database
B. http://localhost.mysql.com:3306/database
C. http://localhostmysql.jdbc:3306/database
D. jdbc:mysql://localhost:3306/database

Answer: D

NEW QUESTION 120
Given: Automobile.java

```
public abstract class Automobile { //line 1
   abstract void wheels();
}
```

Car.java

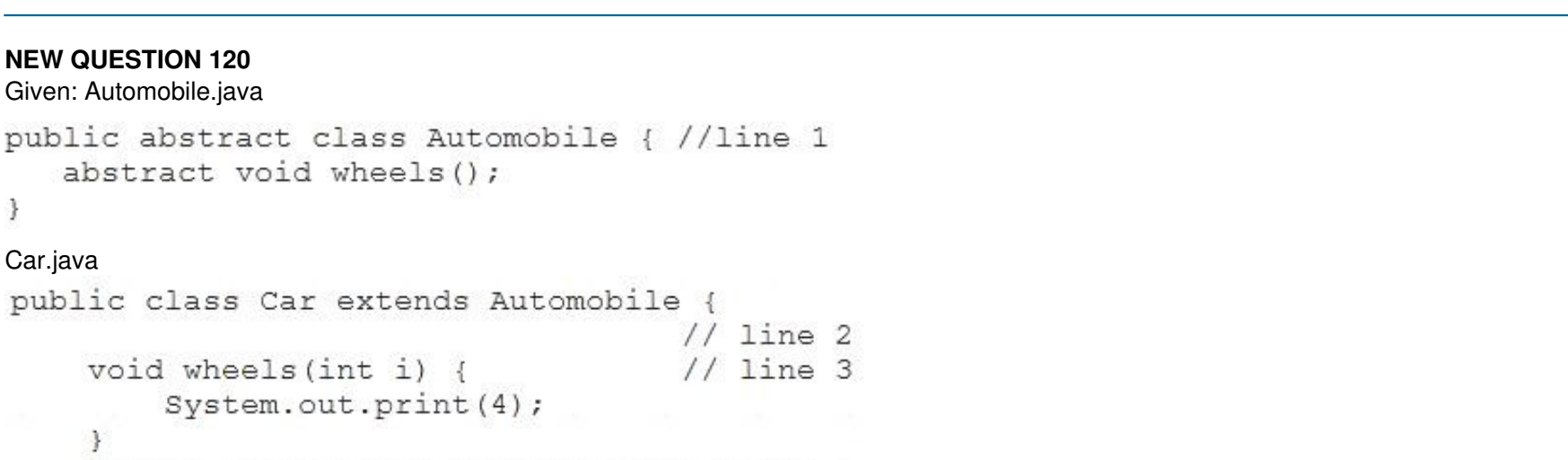
```
public class Car extends Automobile {
                                        // line 2
    void wheels(int i) {                // line 3
        System.out.print(4);
    }
    public static void main(String[] args) {
        Automobile ob = new Car(); // line 4
        ob.wheels();
    }
}
```

What must you do so that the code prints 4?

A. Remove the parameter from wheels method in line 3.
B. Add @Override annotation in line 2.
C. Replace the code in line 2 with Car ob = new Car();
D. Remove abstract keyword in line 1.

Answer: B

Explanation:



NEW QUESTION 125
Which two statements independently compile? (Choose two.)

A. List<? super Short> list = new ArrayList<Number>();
B. List<? super Number> list = new ArrayList<Integer>();
C. List<? extends Number> list = new ArrayList<Byte>();
D. List<? extends Number> list = new ArrayList<Object>();
E. List<? super Float> list = new ArrayList<Double>();

Answer: AC

Explanation:

```java
import java.util.*;
import java.text.*;
import java.io.*;
import java.lang.Thread;
import java.util.ArrayList;
import java.util.LinkedList;
import java.util.List;
import java.util.function.Consumer;
import java.util.stream.Stream;
import java.util.stream.IntStream;
import java.util.Optional;

public class Intel {
    public static void main (String[] args) {
List<? extends Number> list = new ArrayList<Byte>()
}
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

Result

compiled and executed in 1.173 sec(s)

NEW QUESTION 129
Given:
public class X {
}
and
public final class Y extends X {
}
What is the result of compiling these two classes?

A. The compilation fails because there is no zero args constructor defined in class X.
B. The compilation fails because either class X or class Y needs to implement the toString() method.
C. The compilation fails because a final class cannot extend another class.
D. The compilation succeeds.

Answer: B

Explanation:

```java
public class Main {
  public static void main (String[] args) {
    public class X {

    }

  public final class Y extends X {

  }
  }
```

NEW QUESTION 134
Given the code fragment:
Path source = Paths.get(“/repo/a/a.txt”); Path destination = Paths.get(“/repo”); Files.move(source, destination); // line 1 Files.delete (source); // line 2
Assuming the source file and destination folder exist, what Is the result?

A. A java.nio.file.FileAlreadyExistsException is thrown on line 1.
B. A java.nio.file.NoSuchFileException is thrown on line 2.
C. A copy of /repo/a/a.txt is moved to the /repo directory and /repo/a/a.txt is deleted.
D. a.txt is renamed repo.

Answer: C

NEW QUESTION 137
Given:

```
import java.io.*;
public class Tester {
   public static void main(String[] args) {
      try {
         doA();
         doB();
      } catch(IOException e) {
          System.out.print("c");
          return;
      } finally{
          System.out.print("d");
      }
      System.out.print("f");
   }
   private static void doA() {
      System.out.print("a");
      if (false) {
         throw new IndexOutOfBoundsException();
       }
   }
   private static void doB() throws FileNotFoundException {
      System.out.print("b");
      if (true) {
         throw new FileNotFoundException();
      }
   }
}
```

What is the result?

A. The compilation fails.
B. abdf
C. abd
D. adf
E. abcd

Answer: E

NEW QUESTION 138
Given:

```
enum Color implements Serializable {
   R(1), G(2), B(3);
   int c;
   public Color(int c) {
      this.c = c;
   }
}
```

What action ensures successful compilation?

A. Replace public Color(int c) with private Color(int c).
B. Replace int c; with private int c;.
C. Replace int c; with private final int c;.
D. Replace enum Color implements Serializable with public enum Color.
E. Replace enum Color with public enum Color.

Answer: A

Explanation:

```
1
2  import java.io.*;
3  import java.util.*;
4  class Hello {
5
6
7      enum Color implements Serializable {
8        R(1), C(2), B(3);
9        int c;
10       private Color (int c) {
11         this.c = c;
12       }
13     }
14 }
```

NEW QUESTION 139
Given:

```
List<String> list = ... ;
list.forEach( x -> { System.out.println(x); } );
```

What is the type of x?

A. char
B. List<Character>
C. String
D. List<String>

Answer: C

NEW QUESTION 141
Given:

```
package test.t1;
public class A {
   public int x = 42;
   protected A() {}                    // line 1
}
```

and

```
package test.t2;
import test.t1.*;
public class B extends A {
   int x = 17;                         // line 2
   public B() { super(); }             // line 3
}
```

and

```
package test;
import test.t1.*;
import test.t2.*;
public class Tester {
   public static void main(String[] args) {
      A obj = new B();                 // line 4
      System.out.println(obj.x); // line 5
   }
}
```

What is the result?

A. 42
B. The compilation fails due to an error in line 4.
C. 17
D. The compilation fails due to an error in line 3.
E. The compilation fails due to an error in line 2.
F. The compilation fails due to an error in line 1.
G. The compilation fails due to an error in line 5.

Answer: A

NEW QUESTION 142
var numbers = List.of(0,1,2,3,4,5,6,7,8,9);
You want to calculate the average of numbers. Which two codes will accomplish this? (Choose two.)

A. double avg = numbers.stream().parallel().averagingDouble(a > a);
B. double avg = numbers.parallelStream().mapToInt (m > m).average().getAsDouble ();
C. double avg = numbers.stream().mapToInt (i > i).average().parallel();
D. double avg = numbers.stream().average().getAsDouble();
E. double avg = numbers.stream().collect(Collectors.averagingDouble(n > n));

Answer: BD

Explanation:

```
1
2 import java.io.*;
3 import java.util.*;
4 class Hello {
5 public static void main(String[] args) {
6
7     var numbers = List.of(0,1,2,3,4,5,6,7,8,9);
8   double avg = numbers.parallelStream().mapToInt (m -> m).average().getAsDouble();
9
10    }
11 }
```

NEW QUESTION 143
Given:

```
public class Tester {
   public static void main(String[] args) {
      String s = "this is it";
      int x = s.indexOf("is");
      s.substring(x+3);
      x = s.indexOf("is");
      System.out.println(s+" "+x);
   }
}
```

What is the result?

A. is it 1
B. An IndexOutOfBoundsException is thrown at runtime.
C. is it 0
D. this is it 2
E. this is it 3

Answer: D

Explanation:

```
Console 1    Console 2

this is it 2

Completed with exit code: 0
```

NEW QUESTION 147
Given:

```
// line 1
List<String> fruits = new ArrayList<>(List.of("apple", "orange","banana"));
fruits.replaceAll(function);
```

Which statement on line 1 enables this code fragment to compile?

A. Function function = String::toUpperCase;
B. UnaryOperator function = s > s.toUpperCase();
C. UnaryOperator<String> function = String::toUpperCase;
D. Function<String> function = m > m.toUpperCase();

Answer: C

Explanation:

```
1
2  import java.io.*;
3  import java.util.*;
4  import java.util.stream.Stream;
5  import java.util.function.Function;
6  import java.util.function.UnaryOperator;
7
8  class Hello {
9  public static void main(String[] args) {
10
11    UnaryOperator<String> function = String::toUpperCase;
12     List<String>fruits = new ArrayList<>(List.of("apple", "orange", "banana"));
13    fruits.replaceAll(function);
14
15       }
16 }
```

NEW QUESTION 150
Given:

```
import java.util.*;

public class Main {
  static Map<String, String> map = new HashMap<>();
  static List<String> keys =
         new ArrayList<>(List.of("A", "B", "C", "D"));
  static String[] values =
         {"one", "two", "three", "four" };

  static {
    for(var i = 0; i < keys.size(); i++) {
      map.put(keys.get(i), values[i]);
    }
  }

  public static void main(String[] args) {
    keys.clear();
    values = new String[0];
    System.out.println("Map: " + map.size() +
              " Keys: " + keys.size() +
              " Values: " + values.length);
  }
}
```

What is the result?

A. Map: 0 Keys: 0 Values: 0
B. The compilation fails.
C. Map: 4 Keys: 4 Values: 4
D. Map: 4 Keys: 0 Values: 0
E. Map: 0 Keys: 4 Values: 4

Answer: D

Explanation:

Console 1

```
Map: 4 Keys: 0Values: 0

Completed with exit code: 0
```

NEW QUESTION 151
Given:

```
for(var i = 0; i < 10; i++) {
  switch(i%5) {
    case 2:
      i *= i;
      break;
    case 3:
      i++;
      break;
    case 1:
    case 4:
      i++;
      continue;
    default:
      break;
  }
  System.out.print(i + " ");
  i++;
}
```

What is the result?

A. nothing
B. 10
C. 0 4 9

Answer: A

NEW QUESTION 153
Given:

```
public class Foo {
    public static void main(String... args) {
        for (var x : args) {
            System.out.println(x);
        }
    }
}
```

What is the type of the local variable x?

A. Character
B. char
C. String[ ]
D. String

Answer: D

NEW QUESTION 154
.....

50. Given:

```
import java.util.function.*;
class LongFunctionTest
{
        public static void main(String[] args)
        {
                LongFunction func = x -> x*x;
                long test = func.apply(100);
                System.out.println(test);
        }
}
```

What is the output?

1. The compilation fails.
2. 100
3. A NumberFormatException is thrown at run time.
4. 10000

49. Given:

```
import java.util.function.*;
class abc
{
        void myLambda ()
        {
        }

        public static void main(String a[])
        {
                int i = 25;
                Supplier<Integer> foo = () -> i;
                i++;
                System.out.println(foo.get());
        }
}
```

Which is true?

1. The code does not compile.
2. The code compiles but does not print any result.
3. The code throws an exception at runtime.
4. Mark for The code prints 25.

48. Given:

Path v1 =

Paths.get("/./forest/./").resolve (Paths.get("tree.txt"));

Path v2 = new File("/forest/./water/../tree.txt").toPath(); System.out.print (Files.is Same File (v1, v2)); System.out.print(" " + vl.equals (v2));

System.out.print(" " + vl.normalize().equals (v2.normalize()));

Assuming all referenced paths exist within the file system, what is the result?

1. true false true
2. false true true
3. Ma
4. false false true
5. true true true

47. Given:

```
class Super {
static String greeting () { return "Good Night"; }
String name () { return "Harry"; }
}

class Sub extends Super {
static String greeting () { return "Good Morning"; } String name () { return "Potter";}
}

class Test {
public static void main(String[] args) {
Super s = new Sub ();
System.out.println(s.greeting () + "," + s.name());
}}
```

1. What is the result?
2. Good Morning, Potter
3. Good Morning, Harry
4. Good Night, Harry
5. Good Night, Potter

46. Given:

```
class Over {
public void analyze (Object[] o) {
System.out.println("I am an object array");
}
public void analyze (long[] l) {
System.out.println("I am an array");
}
public void analyze (Object o) {
System.out.println("I am an object");
}

public static void main(String[] args) {
int[] nums = new int[10];
new Over().analyze(nums);
// line 1
```

}
}
What is the output?

1. I am an array
2. The compilation fails due to an error in line 1.
3. O
4. I am an object array
5. I am an object

44. Given the code fragment:

int i = 0;

for(; i<10; i++) {

System.out.print (++i+

What is the result?

1. 2 4 6 8 10
2. 13579 11
3. 2468
4. 13579

45. Given:

public class DNASynth {

int aCount;

int tCount;

int cCount;

int gCount;

void setACount (int cCount) {

}

cCount = cCount;

void setTCount () {

}

this.tCount = tcount;

int setCCount () {

}

return cCount;

int setGCount (int g) {

}

gCount = g;

return gCount;

void setAllCounts (int x) {

aCount = tCount

}

}

this.cCount = setGCount (x);

Which two methods modify field values?

1. setGCount
2. setCCount
3. setACount
4. setAllCounts
5. setTCount

43. Given the code fragment:

var i

10

var j = 5;

i += (j

* 5+ i)j – 2;

System.out.println(i);

What is the result?

1. 15
2. 5
3. OOOO
4. 21
5. 11
6. 23

42. Which three initialization statements are correct?

1. short sh = (short) 'A';
2. boolean false = (4 = 4);
3. int x = 12_34;
4. int [][][] e = {{1,1,1), (2,2,2}};
5. float x = 1f;
6. String contact# = "(+2) (999) (232) ";

7. byte b = 10;
8. char c= b;

41. Given:

public class Tester {

public static void main(String args[]) {

String s = "10";

try {

int x = 0;

x = Integer.parseInt(s, 2); // line 1 System.out.println("x is "+x);

} catch (NumberFormatException e) {

System.out.println("Error parsing value of "+x); // line 2

}

}

}

What is the result?

1. Error parsing value 0
2. The compilation fails due to an error in line 1.
3. The compilation fails due to an error in line 2.
4. X is 10.
5. x is 2.

40. Given:

```
import java.util.function.BiFunction;
class Pair
{
        final BiFunction validator;
        T left = null;
        T right = null;
        private Pair()
        {
                validator=null;
        }

        Pair(BiFunction v, T x, T y)
        {
                validator = v;
                set (x, y);
        }

        void set(T x, T y)
```

```
        {
                if (!validator.apply(x, y))
                throw new IllegalArgumentException();
                setLeft(x);
                setRightn(y);
        }

        void setLeft(T x)
        {
                left = x;
        }

        void setRight(T y)
        {
                right=y;
        }

        final boolean isValid()
        {
                return validator.apply(left, right);
        }
}
```

It is required that if p instanceof Pair then p.isValid() returns true.

Which is the smallest set of visibility changes to ensure this requirement is met?

left and right must be private.

39. Given the code fragment:

```
import java.util.*;
import java.text.*;
class abc
{
        public static void main(String a[])
        {
                Locale locale=Locale.US;
                double currency=1_00.00;
                //line 1
                System.out.println(formatter.format(currency));
        }
}
```

Which code inserted on line 1 will accomplish this?

000

1. NumberFormat formatter = NumberFormat.getInstance(locale).getCurrency();
2. NumberFormat formatter = NumberFormat.getCurrency (locale);
3. NumberFormat formatter = NumberFormat.getCurrencyInstance(locale);
4. NumberFormat formatter = NumberFormat.getInstance (locale);

38. Given:

```
class A
{
        int a = 0;
        int b = 0;
        int c = 0;

        public void foo(int i)
        {
                a += b * i;
                c -= b * i;
        }

        public void setB(int i)
        {
                b = i;
        }
}
```

Which makes class A thread safe?

1. Make setB synchronized.
2. Make A synchronized.
3. Class A is thread safe.
4. Make foo synchronized.
5. Make foo and setB synchronized.

36. Given:

```
class Employee
{
        String office;
}
class HRApp {
        var employee=new ArrayList();
        public var display()
        {
        var employee=new Employee();
        var offices=new ArrayList<>();
        offices.add("India");
        offices.add("Germany");
        for(var office: offices)
        {
        System.out.print(office);
        }
}
}
```

Which two lines cause compilation errors?

1. line 8
2. line 7
3. line 9

4. line 12
5. line 6

37. Given:

```
class abc
{
        public static void main(String a[])
        {
                int i= 10;
                do
                {
                for(int j = i/2; j > 0; j--)
                {
                        System.out.print (j + " ");
                }
                i-=2;
                } while (i > 0);
        }
}
```

What is the result?

1. nothing
2. 5 4 3 2 1 4 3 2 1 3 2 1 2 1 1
3. Mark for Re
4. 5
5. 54321

35. Given:

```
public interface API { //line 1
public void checkValue (Object value)
throws IllegalArgumentException; //line 2
public boolean isValueANumber (Object val) {
if (val instanceof Number) {
return true;
}else {
try {
Double.parseDouble (val.toString()); return true;
} catch (NumberFormatException ex) {
return false;
}
```

}

}

Which two changes need to be made to make this class compile?

1. Change Line 2 to an abstract method:
   public abstract void checkValue (Object value)throws IllegalArgumentException;
2. Change Line 1 to a class:
   public class API {
3. Change Line 2 access modifier to protected:
   protected void checkValue (Object value)throws IllegalArgumentException;
4. Change Line 1 to extend java.lang. AutoCloseable: public interface API extends AutoCloseable {
5. Change Line 1 to an abstract class:
   public abstract class API {

34. Given:

public interface ExampleInterface {

int one = 1;

static int two = 2;

static final int three = 3;

Mark

}

public class ExampleClass implements ExampleInterface {

public static void main(String[] args) {

ExampleInterface the Instance = new ExampleClass(); //line 1

}

}

Which three statements cause a compiler error when inserted at line 1?

1. int c three;
2. int h theInstance.two;
3. int d = Example Interface.one;
4. int a = one++;
5. int e = ExampleInterface.two++;
6. int b = two;
7. int f = ExampleInterface.three;
8. int i = the Instance.three++;
9. int g theInstance.one;

33. Given:

```
interface OrderService
{
	default void place(int numItems, int minItems)
	{

	}
	private void verify(int minItems)
	{
		System.out.println("Verified");
	}
}

class Order implements OrderService
{
	public static void main(String[] ar)
	{
		Order order=new Order();
		order.place(10,5);
	}
}
```

Which action must you perform to print verified?

1. Invoke the verify method from the place method.
2. Change the declaration of the order variable to orderService order = new Order(); and invoke the verify method from the main method.
3. Invoke the verify method from the main method.
4. Make the verify method public and invoke it from the main method.

32. Given the code fragment:

```
/* line n1 */

	A()
	{
		super("The Mandatory Criteria Yet to Meet");
	}

class TestCE
{
	public static void main(String[] arg)throws A
	{
		int a=10, b=13;
		try
		{
			if(a<b)
			{
			throw new A();
			}
		}
		catch(Exception e)
		{
```

```
                    System.out.println(e);
                }
                System.out.println("Continue...");
        }
}
```

You must define the A exception class. The program execution must be terminated if the condition at line 19 is true and an A exception is thrown at line 20.

Which code fragment at line n1 defines a as per the requirement?

1. class A extends RuntimeException {
2. class A extends ArithmeticException {
3. class A extends Exception {
4. class A extends Throwable {

31. Given:

public class StrBldr (

static StringBuilder sbl = new StringBuilder ("yo ");

static StringBuilder sb2 = new StringBuilder ("hi ");

public static void main(String[] args)

{

sbl=sbl.append(new StrBldr ().foo (new StringBuilder("hey"))); System.out.println(sbl);

}

StringBuilder foo (StringBuilder s) {

sb2=sb2.append(s + " oh ");

return sb2;

}

}

What is the result?

1. hey oh hi yo
2. yo hi hey oh
3. yo hi
4. hey oh yo hi
5. A compile time error occurs.

30. Given the code fragment:

String s1 = new String("Java");

String s2 = s1.intern();

StringBuilder sb1 = new StringBuilder("Java");

String $3 = sbl.toString();

System.out.println(s1 == s2);

System.out.println(sl.equals (sbl.toString())); System.out.println(s2 == $3);

What is the result?

false true false

27. Given:

public class Foo {

private String a ()

}

public String b() {

{

return "Hello world!";

return a();

}

}

public class Bar extends Foo { protected String a()

return "Bonjour le monde!";

}

}

public class Baz extends Bar { public String b() {

return a ();

}

}

and

System.out.println (new Foo().b()); System.out.println(new Bar().b());

System.out.println(new Baz () .b());

What is the output?

Hello world! Hello world! Bonjour le monde!

28. Given:

```
public class Foo {
public static String ALPHA = "alpha";
protected String beta = "beta";
private final String delta;
public Foo (String d) {
delta = ALPHA +d;
}
public String foo() {
return beta += delta;
}
}
```

Which change would make Foo more secure?

1. public static final String ALPHA = "alpha";
2. private String delta;
3. protected final String beta = "beta";
4. public String beta = "beta";

29. Given:

```
public class Main {
public static void main(String[] args) {
 Thread t1 = new Thread (new MyThread());
Thread t2 = new Thread (new MyThread());
Thread t3 = new Thread (new MyThread());
t1.start();
t2.run();
t3.start();
t1.start();
}
}
class MyThread implements Runnable {
public void run() {
System.out.println("Running.");
}
```

}

Which one is correct?

1. An IllegalThreadStateException is thrown at runtime.
2. Three threads are created.
3. Four threads are created.
4. The compilation fails.

26. Given:

```
abstract class Base {
abstract protected float getVal();
}
public class Test extends Base{
public float getVal() { return 0f; }
 public long getVal() { return 2L; }
 public static void main(String[] args) {
Test test = new Test();
float f = test.getVal();
System.out.println(f + test.getval());
}
}
```

What is the output?

1. The compilation fails.
2. An exception is thrown at runtime.
3. 2
4. 2.0

25. Given:

```
public class Foo {
public <T> Collection<T> foo (Collection<T> arg){...}
}
```

and

```
public class Bar extends Foo {...}
```

Which two statements are true if the method is added to Bar?

1. public <T> Collection<T> foo (Collection<T> arg) {...} overloads Foo.foo.

2. public Collection<String> foo (Collection<String> arg){... } overrides Foo.foo.
3. public <T> Collection<T> bar (Collection<T> arg) { ... } overloads Foo.foo.
4. public <T> List<T> foo (Collection<T> ang) ... overrides Foo.foo.
5. public <T> Iterable<T> foo (Collection<T> arg) {... } overrides Foo.foo.
6. public <T> Collection<T> foo (Stream<T> arg) (...) overloads Foo.foo.

24. Given:

```
var h = new HashMap();
String[] k = { "1",”2" , null, "3" } ;
 String[] v = { "a", "b", "c", null);
for (int i = 0; i < 4; i++) {
h.put (k[i], v[i]);
System.out.print (h.get (k[i]) +” “);
}
```

What is the result?

1. abc
2. a b c followed by an exception
3. a b c null
4. a b followed by an exception

23. Given:

```
5. class A{}
6. class B extends A{ }
7. class C extends B {}
8. public class Test {
9. public static void main(String args[]) {
10. List<? extends A> listA = new ArrayList<>();
11. List<B> listB = new ArrayList<B>();
12. List<? extends B> listC = new ArrayList<>();
13. listA= listB;
14. listC = listB;
}
}
```

Which is true?

1. The program fails to compile on line 13.
2. The program fails to compile on line 11.
3. The program fails to compile on line 10.
4. The program compiles fine.

22. Given:

List<Integer> myList Arrays.asList (9,8,9,2,7,2);

Which statement prints 2789?

1. myList.stream()
   .collect (Collectors.tocollection (TreeSet::new))
   .stream()
   .forEach (x -> System.out.print (x));

21. Given the declaration:

@interface Resource {

}

String[] value ();

Examine this code fragment:

/* Loc1 */ class ProcessOrders { ...

Which two annotations may be applied at Loc1 in the code fragment?

1. @Resource (value={{}})
2. @Resource
3. @Resource
4. @Resource ("Customer1")
5. @Resource ({"Customer1", "Customer2"})

20. Given the declaration:

@interface Resource {

}

String value () default "Customer1";

Examine this code fragment:

/* Loc1 */ class ProcessOrders

Which two annotations may be applied at Loc1 in the code fragment?

1. @Resource (val="Customer2")
2. @Resource (Value="Customer2")
3. @Resource ({"Customer2"})
4. @Resource
5. @Resource ("Customer2")

19. Which statement is true?

1. System.exit() invokes the close () method for the InputStream/OutputStream resources.
2. Console.readPassword() method encrypts the text entered.
3. PrintWriter Outputs characters and automatically flushes the stream.
4. PrintStream outputs only bytes.

18. Which module is required for any application using Swing or AWT?

1. java.desktop
2. java.rmi
3. java.logging
4. java.se
5. java.prefs

16. Given:

class MyPersistenceData {

String str;

private void methodA () {

System.out.println("method");

}

}

You want to implement the java.io.Serializable interface to

the MyPersistence Data class.

Which method should be overridden?

1. The readExternal method
2. The writeExternal method
3. Nothing
4. The readExternal and writeExternal method

15. Given:

public enum Season {

WINTER ('w'), SPRING ('s'), SUMMER ('h'), FALL('f');

char c;

private Season (char c) {

this.c= c;

}

and the code fragment:

public static void main(String[] args) {

Season[] SA = Season.values();

// line n1

Which three code fragments, at line n1, prints SPRING?

1. System.out.println(sA[0]);
2. System.out.println(Season.values (1));
3. System.out.println(Season.valueOf("SPRING").ordinal());
4. System.out.println(sA [1]);
5. System.out.println (Season.valueOf('s'));
6. System.out.println(Season. SPRING);
7. System.out.println(Season.valueOf("SPRING"));

13. Given:

public class Person {

private String name;

private int age;

public Person (String name, int age) {

this.name = name;

this.age = age;

}

public int getAge () {

return age;

}

public static void main(String args[]) {

var persons = Arrays.asList (new Person ("Max", 18), new Person ("Peter", 23), new Person("Pamela", 23), new Person("David", 12));

int num = persons.stream()

.mapToInt (Person::getAge) .filter(p -> p < 20)

.reduce (0, (a, b) -> a + b);

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}

System.out.println (num);

What is the output?

1. 41
2. 46
3. 35

4. 30
5. 4

12. Given:

import java.sql.Timestamp;

public class Test {

public static void main(String[] args) {

Timestamp ts = new Timestamp (1);

}

and the commands:

javac Test.java

jdeps -summary Test.class

What is the result on execution of these commands?

1. Test.class -> java.base Test.class -> java.sql java.sql -> java.base
2. On execution, the jdeps command displays an error.
3. Test.class -> java.base Test.class -> java.sql
4. Test.class-> java.sql-> java.base

1. Given the code fragment:

int nums[] = {1, 2, 3};

int nums2 [] = {1, 2,

nums2 = nums 1;

for (int x: nums 2) {

}

3, 4, 5};

System.out.print (x + ":");

What is the result?

A. 1:2:3:

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

2. Which two array initialization statements are valid?

A. int array[]= new int[3];
   array [0]=1;
   array[1]=2;
   array [2]=3;
B. int array[]=new int [3] {1, 2, 3};
C. int array[]=new int[] {1,2,3);
D. int array[]=new int [3];
   array = {1, 2, 3);
E. int array [3] = new int[] {1, 2, 3};

}

3. Given:

public class Test {

public static final int MIN = 1; public static void main(String[] args) {

int x = args.length;

}

}

if (checkLimit (x)) {

// line nl

System.out.println("Java SE");

} else {

System.out.println("Java EE");

public static boolean checkLimit (int x) { return (x >= MIN) ? true : false;

}

And:

javac Test.java

java Test 1

What is the result?

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

4. 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 nl
}
```

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

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

5. 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. An UnsupportedOperationException is thrown at runtime.
C. HiHowAreYou removed
D. The program compiles, but it prints nothing.

6. Given:

```
class Vehicle (

String type="4W":

int maxSpeed=100;

Vehicle (String type, int maxSpeed) {

this.type=type;

this.maxSpeed =maxSpeed;

}

Vehicle () {}

}

class Car extends Vehicle {

String trans;

Car (String trans) {//line n1

this.trans = trans;

}

Car (String type, int maxSpeed, String trans) {
```

```
super (type, maxSpeed); // line n2
this.trans=trans;
}
}
```

And given the code fragment:

```
7. Car c1 = new Car ("Auto");
8. Car c2 = new Car ("4W", 150, "Manual");
9.System.out.println (c1.type + "" + c1.maxSpeed + c1.trans);
10.System.out.println (c2.type ++c2.maxSpeed +c2.trans);
```

What is the result?

A. Compilation fails only at line n2.
B. Compilation fails only at line n1.
C. Compilation fails at both line n1 and line n2.
D. 4W 100 Auto
   4W 150 Manual
E. null 0 Auto
   4W 150 Manual

7. Given the code fragment:

```
abstract class Robot implements Speakable [
public void process();
class Humanoid extends Robot {
public void speak (String s) { System.out.println(s); }
 public void process () { System.out.println("Helping... "); }
}
interface Speakable {
public void speak (String s);
}
public class RobotApp {
public static void main(String[] args) {
Robot r = new Humanoid();
```

r.process();

r.speak ("Done");

Which action enables the code to print Helping... Done?

A. replace interface Speakable {
   with abstract class Speakable
B. replace abstract class Robot implements Speakable {
   with class Robot extends Speakable {
C. replace class Humanoid extends Robot {
   with abstract class Humanoid extends Robot{
D. replace public void process();
   with public abstract void process ();

8. Given the code fragment:

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

Which three code fragments are valid at line n1?

A. final int getToy () {
   return 100;
   }
B. public static insertToy () {
   /* code goes here */
   }
C. public int calculate Price () {
   return price;
   }
D. public abstract int compute Discount();
E. public void printToy ();

9. 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=0; i < arr.length; i++) {
System.out.print (a[i] + " ");
}
System.out.println();
}
```

}

What is the result?

A. Compilation fails.
B. 1 3 5 7
   1 3
C. 13
   followed by an ArrayIndexOutOfBoundsException
D. 1 3
   13
E. 13
   1300

10. Given:

```
4.  public class Shop{
5.  public static void main(String[] args) {
6.  int price = 1000;
7.  int qty = 2;
8.  String grade=”2”;
9.  double discount = 0.0;
10. switch (grade) {
11. case "1":
12. discount=price * 0.1;
13. break;

14. case "2":
15. discount= price* 0.5;
16. continue:
17. default:
18. System.out.println("Thank You!");
19. }
20. System.out.println(discount);
21. }
22. }
```

Which statement is true?

A. Commenting line 13 enables the program to print: Thank You!
   500.0
B. The program executes and prints:
   500.0
C. The program executes and prints:
   Thank You!
   500.0
D. Commenting line 16 enables the program to print:
   Thank You!
   500.0

11. 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. -1
B. 0
C. 3
D. Compilation fails.

12. Given the code fragment:

```
String shirts[][] = new String[2] [2];
shirts[0][0] = "red";
shirts[0][1] = "blue";
 shirts [1] [0] = "small";
shirts [1] [1] = "medium";
```

Which code fragment prints red: blue: small:medium:?

A.
```
for (int index = 0; index < 2; ++index) {
for (int idx= 0; idx < index; ++idx) {
System.out.print (shirts [index] [idx] + ":");
}
}
```

B.
```
for (String[] c: shirts) {
for (String s: c) {
System.out.print (s + ": ");
}
}
```

C.
```
for (int index = 0; index <= 2;)
for (int idx 0; idx <= 2;) {
System.out.print (shirts [index] [idx] + ":");
idx++;
}
index++;
}
```

D. for (int index = 1; index < 2; index++) {
for (int idx = 1; idx < 2; idx++) {
System.out.print (shirts [index] [idx] + ":");
}
}

13. Given:

class LogFileException extends Exception ()
class AccessViolationException extends RuntimeException ()

```
1. public class App (
2. public static void main(String[] args) throws LogFileException (
3. App obj = new App();
4. try {
5. obj.open();
6. obj.process();
7. // insert code here
8. }
9. catch (Exception e) {
10. System.out.println("Completed.");
11. }
12. }
13. public void process () {
14. System.out.println("Processed");
15. throw new LogFileException();
16. }
17. public void open () {
18. System.out.println("Opened.");
19. throw new AccessViolationException();
20. }
21. }
```

Which action fixes the compiler error?

A. At line 7, insert throw new LogFileException();
B. At line 2, replace throws LogFileException with throws AccessViolationException
C. At line 17, add throws AccessViolationException
D. At line 13, add throws LogFileException

14. 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) {
this (name, age);
setSalary (salary);
}
//getter and setter methods for attributes go here
public void printDetails() {
System.out.println(name +":"+ age +": " + salary);
}
}
```

Test.java

```
Class Test {
Employee e1=new Employee ();
Employee e2=new Employee ("Jack", 50);
Employee e3=new Employee ("Chloe", 40, 5000);
```

Test.java:

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

What is the result?

A. null: 0: 0
   Jack: 50: 0
   Chloe : 40: 5000
B. null : 0 : 0
   Jack: 50: 2000
   Chloe : 40 5000
C. Compilation fails in the Employee class.
D. Both the Employee class and the Test class fail to compile.
E. Compilation fails in the Test class.

15. 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 12 with return (x > 0) ? false : true;
B. At line 7, insert x--;
C. Replace line 6 with system.out.print (--x);
D. Replace line 5 with while (isAvailable (--x)) {

16. Given the definitions of the MyString class and the Test class:

MyString.java:

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

Test.java:

```
package pl;
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") .msg);
}
}
```

What is the result?

A. Compilation fails at the Test class.
B. Hello Java SE 8
   Hello Java SE 8
C. Hello java.lang.StringBuilder@<>
   Hello pl.MyString@<>
D. Hello Java SE 8
   Hello pl.MyString@<>

17. Given the code fragment:

```
public static void main(String[] args) {
StringBuilder sb - new StringBuilder ("Java");
String s = "Java";
if (sb.toString().equals(s.toString())) {
System.out.println("Match 1");
} else if (sb.equals (s)) {
System.out.println("Match 2");
} else {
System.out.println("No Match");
}
}
```

What is the result?

A. Match 1
B. Match 2
C. A NullPointerException is thrown at runtime.
D. No Match

18. Given the code fragments:

```
interface Exportable {
void export ();
}
class Tool implements Exportable {
public void export () {    // line n1
System.out.println("Tool::export");
}
}
class ReportTool extends Tool {
void export () {              // line n2
System.out.println("RTool::export");

}
public static void main(String[] args) {
Tool aTool new ReportTool();
Tool bTool = new Tool();
callExport (aTool);
callExport (bTool);
}
public static void callExport (Exportable ex)
ex.export ();
}
}
```

What is the result?

A. RTool::export
   Tool::export
B. Compilation fails only at line 2.

19. 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

A. short x = 1;
B. long x = 1;
C. double x = 1;
D. Integer x = new Integer ("1");
E. byte x = 1;
F. String x =”1”;

20. Given the code fragment:

```
public static void main(String[] args) {
int sum =0;
for (int xVal=1; xVal <= 5; xVal++) {
sum=sum + xVal;
}
System.out.print ("The sum of”+ xVal +”numbers is: "+ sum);
}
```

What is the result?

A. The sum of 4 numbers is: 10
B. The sum of 5 numbers is: 10
C. The sum of 5 numbers is: 15
D. A compile time error occurs.

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 = true;
}
```

What is the result?

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

22. Given:

```
public class MarkList {
int num;
public static void graceMarks (MarkList obj4) {
obj4.num += 10;
}
public static void main(String[] args) {
MarkList obj1 = new MarkList();
MarkList obj2=obj1;
MarkList obj 3 = null;
obj2.num = 60;
graceMarks (obj2);
}
}
```

How many MarkList instances are created in memory at runtime?

A. Two
B. four
C. three
D. one

23. Given this class:

```
public class Pectangle (
private double length;
private double height;
 private double area;
public void setLength (double length) {
this.length = length;
}
public void setHeight (double height) {
this.height = height;
}
public void setArea () {
area = length*height;
}
}
```

Which two changes would encapsulate this class and ensure that the area field is always equal to length height whenever the Rectangle class is used?

A. Call the setArea method at the beginning of the setLength method.
B. Call the setArea method at the end of the setLength method.
C. Change the setArea method to private.
D. Call the setArea method at the end of the setHeight method.
E. Call the setArea method at the beginning of the setHeight method. Change the area field to public.

24. 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. 100 Hello Hello 121
B. 100 Hello 121
C. 10 Hello Hello 121
D. 10 Hello 11
E. 10 Hello Hello 11

25. Which two statements are true about Java byte code?

A. It can run on any platform that has the Java Runtime Environment.
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 be serialized across network.

26. 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. Only s is accessible via obj.
B. p, r, and s are accessible via obj.
C. Both rands are accessible via obj

27. Given these classes:

```
public class Employee {
public int salary;
}
public class Manager extends Employee {
public int budget;
}
public class Director extends Manager {
public int stockOptions;
}
```

and this main method:

```
public static void main(String[] args) {
Employee employee= new Employee ();
Employee manager=new Manager();
Employee director = new Director();
//line n1
}
```

Which two options compile when placed at line n1 of the main method?

A. employee.budget = 200_ 000;
B. manager.stockOption=500;
C. employee.salary=50_000;
D. director.salary=80_000;
E. director.stockOptions=1_000;
F. manager.budget = 1_000_000;

28. Which two statements are true?

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

29. Given the code fragment:

```
public class Test {
void readCard (int cardNo) throws Exception {
System.out.println("Reading Card");
}
void checkCard (int cardNo) throws RuntimeException { // line n1
System.out.println("Checking Card");
}
public static void main(String[] args) {
Test ex = new Test();
```

```
int cardNo =12344;
ex.readCard (cardNo); //line n2
ex.checkCard (cardNo);  //line n3
}
}
```

What is the result?

A. Compilation fails only at linen3.
B. Compilation fails only at line n1.
C. Compilation fails at both line n2 and line n3.
D. Compilation fails only at line n2.
E. Reading Card
F. Checking Card

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

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

31. Given:

```
public class SumTest (
public static void doSum (Integer x, Integer y) {
System.out.println("Integer sum is " + (x + y));
}
public static void do Sum (double x, double y) {
System.out.println("double sum is” + (x + y));
}

public static void doSum (float x, float y) {
System.out.println("float sum is " + (x + y));
}
public static void main(String[] args) {
        doSum (10, 20);
```

```
        do Sum (10.0, 20.0);
}
}
```

What is the result?

A. Integer sum is 30
   double sum is 30.0
B. Integer sum is 30
   float sum is 30.0
C. float sum is 30.0

32. Given:

```
public class App {
int foo;
static int bar;
static void process () {
foo += 10;
bar += 10;
}
public static void main(String[] args) {
App firstObj new App();
App.process();
System.out.println(firstObj.bar);
App secondObj = new App();
App.process();
System.out.println(secondObj.bar);
}
}
```

What is the result?

A. 10
   10
B. A compile time error occurs.
C. 20
   20
D. 10
   20

33. Which three statements are true about the structure of a Java class?

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

34. 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=false
   f = 0.0

C. C = null
   b = true
   f = 0.0

35. Which two initialization statements are valid?

A. Integer pages = 20;
B. String tmpAuthor=author, author ="Mc Donald";
C. Boolean available="TRUE";
D. Double price = 200D;

36. Which two code fragments cause compilation errors?

A. float flt = 100.00F;
B. double y1== 203.22;
   float flt = y1;
C. int y2 = 100;
   float flt = (float) y2;
D. float flt = (float) 1_11.00;
E. Float flt = 100.00;

37. 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 the commands:

javac Test.java

java Test 1 null

What is the result?

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

38. 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.

39. 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 two code fragments, inserted at line n1 independently, print The Top element: 30

A.
```
do {
idx++;
} while (idx >= size);
```
B.
```
while (idx< size - 1) {
idx++;
}
```
C.
```
do {
idx++;
} while (idx < size -1);
```
D.
```
do {
idx++;
} while (idx <= size);
```

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

40. Which three are advantages of the Java exception mechanism?

A. allows the creation of new exceptions that are customized to the particular program being created
B. improves the program structure because the programmer can choose where to handle exceptions
C. improves the program structure because the error handling code is separated from the normal program function
D. provides a set of standard exceptions that covers all possible errors
E. improves the program structure because exceptions must be handled in the method in which they occurred

41. 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;
B. At line n2 insert: String color=Shirt.getColor();
C. At line n2 insert: Shirt=new Shrit();

String color =shirt.getColor();

D. At line n1 insert : import Jeans.color;

42. Examine the content of App.java:

```
package p1;
public class App (
public static void main(String[] args) {
System.out.println("Java");
}
}
```

and of Test.java:

```
package p1.p2;
public class Test {}
```

Which is true?

A. import pl.App; is used to access the App class within the Test class.
B. The App.class file is stored within the p1 folder. The Test.class file is stored within the p2 sub- folder of p1.
C. It is optional to have the package statement as the first line of class definitions.
D. The App class is accessible within the Test class without an import statement.

43. Given:

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

And the code fragment:

```
8. public class Test {
9. public static void main(String[] args) {
 List ps = new ArrayList();
Patient p2 = new Patient ("Mike");
ps.add(p2);

// insert code here

if (f >=0) {
System.out.print ("Mike Found");
}
}
}
```

Which code fragment, when inserted at line 14, enables the code to print Mike Found?

A. int f = ps.indexOf (new Patient ("Mike"));
B. int fps.indexOf (Patient ("Mike"));
C. Patient p = new Patient ("Mike");
   int f = ps.indexOf (p)
D. int f = ps.indexOf (p2);

44. 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, null]
C. Compilation fails.
D. [1, 3, 4, null)
E. [1, 3, 4]
F. [1, 2, 4]

45. 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. false true
B. true false
C. true true
D. false false

46. 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?

A. Replace line n2 with:
```
this.name "Joe":
this.contract true;
this.salary = 100;
```

B. Replace line ni with:
```
this.name = new String("Joe");
this.contract = new Boolean (true);
this.salary = new Double (100);
```

C. Replace line n2 with:
```
e.name = "Joe";
e.contract true;
e.salary 100;
```

47.

Base.java:
```
class Base {
public void test () {
System.out.println("Base ");
}
```
DerivedA.java:
```
class DerivedA extends Base {
public void test () {
System.out.println("DerivedA ");
}
}
```
DerivedB.java:
```
class DerivedB extends DerivedA {
public void test () {
System.out.println("DerivedB ");

}
public static void main(String[] args) {
Base bl = new DerivedB();
Base b2 = new DerivedA ();
Base b3 = new DerivedB();
Base b4= b3;
B1=(Base) b2;
B1.test();
b4.test();
}
}
```
What is the result?

A. Base
   DerivedB
B. DerivedB
   DerivedB
C. DerivedA
   DerivedB
D. A ClassCastException is thrown at runtime.
E. Base
   DerivedA

48. Given the code fragment:

```
 8.public static void main(String[] args) {
 9.      int x;
10.      /* insert code here */
11.      }
```

Which code fragment at line 10 prints Welcome 100?

A.
```
for (x = 0; x < 100; ++x) {
System.out.println("Welcome"+ x);
}
```
B.
```
x = 100;
do {
++x;
System.out.println("Welcome+ x);
} while (x < 100);
```
C.
```
for (x = 100; x <= 100; x++) {
System.out.println("Welcome “+x);
}
```
D.
```
x = 100;
while (x <= 100){
x++;
System.out.println("Welcome "+ x);
}
```