

```

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

```

And the command-line invocations:

```
javac Pass2.java
```

```
java Pass2 5
```

What is the result?

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

Answer:B

Given:

```

String[] elements = { "for", "tea", "too" };
String first = (elements.length > 0) ? elements[0] : null;

```

What is the result?

- A. Compilation fails.
- B. An exception is thrown at runtime.
- C. The variable first is set to null.
- D. The variable first is set to elements[0].

Answer: D

Given:

```

1. public class Boxer1{
2.     Integer i;
3.     int x;
4.     public Boxer1(int y) {
5.         x = i+y; // x = null + 4
6.         System.out.println(x);
7.     }
8.     public static void main(String[] args) {
9.         new Boxer1(new Integer(4));
10.    }
11.}

```

What is the result?

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

Answer: D

Given:

```
1. public class TestString1 {
2.     public static void main(String[] args) {
3.         String str = "420";
4.         str += 42;
5.         System.out.print(str);
6.     }
7. }
```

What is the output?

- A. 42
- B. 420
- C. 462
- D. 42042
- E. Compilation fails.
- F. An exception is thrown at runtime.

Answer: D

Given this code from Class B:

```
25. A a1 = new A();
26. A a2 = new A();
27. A a3 = new A();
28. System.out.println(A.getInstanceCount());
```

What is the result?

```
1. public class A{
2.
3.     private int counter = 0;
4.
5.     public static int getInstanceCount() {
6.         return counter;
7.     }
8.
9.     public A() {
10.        counter++;
11.    }
12.
13. }
```

- A. Compilation of class A fails.
- B. Line 28 prints the value 3 to System.out.
- C. Line 28 prints the value 1 to System.out.
- D. A runtime error occurs when line 25 executes.
- E. Compilation fails because of an error on line 28.

Answer: A

Given

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

11. }

12.}

What is the result?

A. 1

B. 12

C. 14

D. 123

E. Compilation fails.

F. An exception is thrown at runtime.

Answer: C

Given

```
public class Test{
    public static void main(String[] args){
        String[] arr = {"L","I","V","E"};
        int i=-2;

        if(i++==1) arr[--i]="F";
        else if (--i==2) arr[++i] = "O";

        for(String s: arr) System.out.print(s);
    }
}
```

A. compilation error

B. An exception is thrown at runtime

C. LIVE

D. LIFE

E. LIVO

F. LOVE

G. LIOE

Answer: F

Given

```
public class Test{
    Boolean b[] = new Boolean[2];
    public static void main(String... args){
        Test t= new Test();
        System.out.println(t.b[0] + ":" +t.b[1]);// null + ":" + null = >
null:null
    }
}
```

A. NullPointerException

B. false:false

C. true:true

D. null:null

E. RuntimeException other than NullPointerException

Given

```
class Alien {
    String invade(short ships) { return "a few"; }
    String invade(short... ships) { return "many"; }
}
class Defender {
    public static void main(String [] args) {
```

```
        System.out.println(new Alien().invade(7));
    }
}
```

What is the result?

- A. many
- B. a few
- C. Compilation fails
- D. The output is not predictable
- E. An exception is thrown at runtime

Answer: B

Inheritance

+++++

```
class Parent          //Parent class, Base Class, Super class
{
```

```
}
```

```
class Child extends Parent //Child class, Derived class, Sub class
{
```

```
}
```

