

Show the output of the following Java program. (5 pts each)

1) **public class** Example1

```

{
    public static void main(String[ ] args)
    {
        Example1 ex1 = new Example1( );
        Example1 ex2 = new Example1( );
        int first = 50;
        int answer;
        answer = ex1.doSomething( );
        System.out.println("main: " + answer);
        answer = Example1.doSomethingElse( );
        System.out.println("main: " + answer);
        answer = ex1.doSomethingMore( );
        System.out.println("main: " + answer);
        answer = ex2.doSomething( );
        System.out.println("main: " + answer);
    }
    public int doSomething( )
    {
        System.out.print("doSomething arrival: " + first + " ");
        this.first++;
        System.out.print("doSomething exit: " + first + " ");
        return this.first;
    }
    public int doSomethingMore( )
    {
        System.out.print("doSomethingMore arrival: " + first + " ");
        first++;
        System.out.print("doSomethingMore exit: " + first + " ");
        return first;
    }
    public static int doSomethingElse( )
    {
        System.out.print("doSomethingElse arrival: " + first + " ");
        first++;
        System.out.print("doSomethingElse exit: " + first + " ");
        return first;
    }
}
private static int first = 10;
}
    
```

**Output:**

doSomething arrival: \_\_\_\_\_ doSomething exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomethingElse arrival: \_\_\_\_\_ doSomethingElse exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomethingMore arrival: \_\_\_\_\_ doSomethingMore exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomething arrival: \_\_\_\_\_ doSomething exit: \_\_\_\_\_ main: \_\_\_\_\_

**OVER**

```

2) public class Example2
    {
        public static void main(String[ ] args)
        {
            Example2 ex1 = new Example2( );
            Example2 ex2 = new Example2( );
            int first = 50;
            int answer;
            answer = ex1.doSomething(first);
            System.out.println("main: " + answer);
            answer = Example2.doSomethingElse (first);
            System.out.println("main: " + answer);
            answer = ex1.doSomethingMore (first);
            System.out.println("main: " + answer);
            answer = ex2.doSomething (first);
            System.out.println("main: " + answer);
        }
        public int doSomething(int first)
        {
            System.out.print("doSomething arrival: " + first + " ");
            this.first++;
            System.out.print("doSomething exit: " + first + " ");
            return this.first;
        }
        public int doSomethingMore(int first)
        {
            System.out.print("doSomethingMore arrival: " + first + " ");
            first++;
            System.out.print("doSomethingMore exit: " + first + " ");
            return first;
        }
        public static int doSomethingElse(int first)
        {
            System.out.print("doSomethingElse arrival: " + first + " ");
            first++;
            System.out.print("doSomethingElse exit: " + first + " ");
            return first;
        }
        private static int first = 10;
    }

```

**Output:**

doSomething arrival: \_\_\_\_\_ doSomething exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomethingElse arrival: \_\_\_\_\_ doSomethingElse exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomethingMore arrival: \_\_\_\_\_ doSomethingMore exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomething arrival: \_\_\_\_\_ doSomething exit: \_\_\_\_\_ main: \_\_\_\_\_

**continued**

```

3) public class Example3 // same program as Example2 except for the nonstatic variable
{
    public static void main(String[ ] args)
    {
        Example3 ex1 = new Example3( );
        Example3 ex2 = new Example3( );
        int first = 50;
        int answer;
        answer = ex1.doSomething(first);
        System.out.println("main: " + answer);
        answer = Example3.doSomethingElse (first);
        System.out.println("main: " + answer);
        answer = ex1.doSomethingMore (first);
        System.out.println("main: " + answer);
        answer = ex2.doSomething (first);
        System.out.println("main: " + answer);
    }
    public int doSomething(int first)
    {
        System.out.print("doSomething arrival: " + first + " ");
        this.first++;
        System.out.print("doSomething exit: " + first + " ");
        return this.first;
    }
    public int doSomethingMore(int first)
    {
        System.out.print("doSomethingMore arrival: " + first + " ");
        first++;
        System.out.print("doSomethingMore exit: " + first + " ");
        return first;
    }
    public static int doSomethingElse(int first)
    {
        System.out.print("doSomethingElse arrival: " + first + " ");
        first++;
        System.out.print("doSomethingElse exit: " + first + " ");
        return first;
    }
    private int first = 10;
}

```

**Output:**

doSomething arrival: \_\_\_\_\_ doSomething exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomethingElse arrival: \_\_\_\_\_ doSomethingElse exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomethingMore arrival: \_\_\_\_\_ doSomethingMore exit: \_\_\_\_\_ main: \_\_\_\_\_

doSomething arrival: \_\_\_\_\_ doSomething exit: \_\_\_\_\_ main: \_\_\_\_\_