

Scope of a Variable

What values will be printed by the following Java program?

```
public class Test {  
    private int var1;  
    private int i;  
    public Test() {  
        var1 = 7;  
        i = 10;  
    }  
    private void algo1 (int j) {  
        i = j;  
        j = 14;  
    }  
    private void algo2 (int i) {  
        i = 20;  
        var1 = 100;  
    }  
    public void algo3() {  
        int var1 = 2;  
        int j = 4;  
        for (int i = 1; i < 3; ++i)  
            var1 = var1 + i;  
        int k = i;  
        algo2(5);  
        System.out.println(i);  
        algo1(j);  
        System.out.println(j+"," +i+"," +var1);  
    }  
    public static void main (String[] args) {  
        Test t = new Test();  
        t.algo3();  
    }  
}
```

Scope of a Variable

Below we indicate which variable is referenced by each statement.

```
public class Test {  
    private int var1;  
    private int i;  
    public Test() {  
        var1 = 7;  
        i = 10;  
    }  
    private void algo1 (int j) {  
        i = j;  
        j = 14;  
    }  
    private void algo2 (int i) {  
        i = 20;  
        var1 = 100;  
    }  
}
```

```
public void algo3() {  
    int var1 = 2;  
    int j = 4;  
    for (int i = 1; i < 3; ++i)  
        var1 = var1 + i;  
    int k = i;  
    algo2(5);  
    System.out.println(i);  
    algo1(j);  
    System.out.println(j+"," +i+"," +var1);  
}  
public static void main (String[] args) {  
    Test t = new Test();  
    t.algo3();  
}  
}
```