Short Circuit Worksheet

1. ```
   int x = 8;
   int y = 4;
   (x > y) && (y == 4)
   ```

   - Result: true or false?
   - Short Circuit: yes or no?

2. ```
   int x = 8;
   int y = 4;
   (x > y) || (y == 4)
   ```

   - Result: true or false?
   - Short Circuit: yes or no?

3. ```
   int x = 3;
   int y = 10;
   (y == 3) && (y < x)
   ```

   - Result: true or false?
   - Short Circuit: yes or no?

4. ```
   int x = 3;
   int y = 10;
   (y == 3) || (y < x)
   ```

   - Result: true or false?
   - Short Circuit: yes or no?

	Value		Short-Circuit		
	true	**false**	**Yes**	**No**	
5.					`true || true || false`
6.					`false || false || false`
7.					`false || false || true`
8.					`true || true || true`
9.					`true && true && false`

10.					false && false && false
11.					false && false && true
12.					true && true && true

13. What two lines of output will print when this code is run? (NOTE: ++x will increment x by 1 THEN check if it equals 1)

```
int x = 0, y = 0, z = 0;
System.out.println( ++x == 9 || ++y == 9 && ++z == 1 );
System.out.println("x is " + x + ", y is " + y + ", z is " + z);
```

Output Line 1:

Output Line 2:

14. What two lines of output will print when this code is run?

```
int x = 0, y = 0, z = 0;
System.out.println( ++x == 9 || ++y == 1 && ++z == 1 );
System.out.println("x is " + x + ", y is " + y + ", z is " + z);
```

Output Line 1:

Output Line 2:

15. What two lines will print when this code is run?

```
int x = 0, y = 0, z = 0;
System.out.println( ++x == 1 || ++y == 9 && ++z == 1 );
System.out.println("x is " + x + ", y is " + y + ", z is " + z);
```

Output Line 1:

Output Line 2: