

Worksheet A10.2

Objects and Object References

1. Given the following declarations:

```
int area;  
String name;
```

- a. area is a _____ variable, and name is a _____ variable.
- b. How many objects have been created? _____

2. Given the following section of code:

```
String strA = new String("Oh! ");  
String strB = new String("No! ");  
  
strA = strB;  
System.out.print(strA);  
System.out.println(strB);
```

What is written to the monitor? _____

3. Given the following section of code:

```
String strA = new String("Oh! ");  
String strB = new String("No! ");  
  
strA = strB;  
if (strA == strB)  
    system.out.println("Two copies of a reference.");  
else  
    system.out.println("Two different references.");
```

What is written to the monitor? _____

4. Examine the following section of code:

```
String strA = new String("String ");  
String strB = new String("Cheese ");  
  
strA = strB;
```

How many objects have been created? After the last statement has executed, how many objects are now accessible (don't count garbage)?

Created: _____ Accessible: _____

5. Examine the following section of code:

```
String strA;
strA = new String("Cheese ");
strA = new String("Theory ");
strA = new String("Bikini ");
strA = new String("Ensemble ");
strA = new String("Quartet ");
```

How many objects have been created? After the last statement has executed, how many objects are now accessible (don't count garbage)?

Created: _____ Accessible: _____

6. Examine the following section of code:

```
String strA = new String("Cheese ");
String strB = new String("Theory ");
String strC = new String("Bikini ");
String strD = new String("Ensemble ");
String strE = new String("Quartet ");
```

How many objects have been created? After the last statement has executed, how many objects are now accessible (don't count garbage)?

Created: _____ Accessible: _____

7. Examine the following section of code:

```
String strA = new String("Cheese ");
String strB = strA;
String strC = strA;
String strD = strA;
String strE = strA;
```

How many objects have been created? After the last statement has executed, how many objects are now accessible (don't count garbage)?

Created: _____ Accessible: _____

8. An object that has no references to it is called _____ .
9. If several reference variables refer to the same object, each variable is said to be a(n) _____ of the object.
10. To check if two reference variables both refer to the same object, use the _____ operator.
To check if two different string objects contain equivalent data, use the _____ method.