**Chapter 7 Methods**

**Read Pgs 157 – 173**

* Complete Critical Thinking Pg 174 #3, 5, 6, 8, 9
* Complete Exercises #2(1-4 using methods which return a value 5 -8 using methods which use void, or do not return a value), 5, 8(Optional), 10

A method is used to break a program down into smaller subtasks.

**Format:**

<access level> <return type> <name> (paramters) {

statements

}

The method is written outside the main method, but contained within the controlling class. The method is invoked with the method name and parameters.

**Example:**

public class MethodAreaExample {

public static void main(String[] args) {

double dblLength=5, dblWidth=7;

**calcArea(dblLength,dblWidth);**

}

**public static void calcArea(double dblLength, double dblWidth) {**

**double dblArea;**

**dblArea = dblLength \* dblWidth;**

**System.out.println("The area is " + dblArea);**

**}**

}

The return type void means that the method will not return a value.

**The Return Statement**

A method can return a value (function in VB). The return statement is used to send a value back to the calling statement. A method that returns a value must include the return type in the method declaration.

**Example:**

public class MethodAreaExample {

public static void main(String[] args) {

double dblLength=5, dblWidth=7, dblAns;

dblAns =**calcArea(dblLength,dblWidth);**

System.out.println("The area is " + dblAns);

}

**public static double calcArea(double dblLength, double dblWidth) {**

**double dblArea;**

**dblArea = dblLength \* dblWidth;**

**return dblArea;**

**}**

}

In the above example the return type is double.

The area is returned from the method and stored in the variable dblAns and displayed.