# Chapter 18 Programming Assignment

## **Purpose:** To write an application that uses recursion to solve a problem.

**Details:**

## Create a class called Power that computes the value of base exponent.

## The class should have one recursive method:

* public static int power(int base, int exponent) – Which computes the value of base exponent using recursion, returning the result. The recursion step should use the following relationship

base exponent = base x base exponent - 1

and the termination condition should occur when exponent is equal to 1, because

base 1 = base

**NOTE:** For the power method, assume the exponent parameter value is always greater than 0.

Create a second class called PowerTest that contains the main method, and tests the Power.power method. The test class does not need to ask for input from the user of the class, nor does it need to do any additional error checking.

Upload both source files to Blackboard.

**Note:** Ensure that your program is properly formatted and it follows all Java naming conventions.