\*\* Please note that this assignment contains three (short) separate programs to be written. Start a new project for each.

**Problem 1: Counting**

Write a recursive static method called counting that takes an integer n as a parameter and prints to the console the first n integers starting with 1 in sequential order, separated by commas.

In main prompt your user for the integer to be passed to the method.

Output should look similar to:

Please enter a positive integer: 5

1, 2, 3, 4, 5

Notice each of the printed values is followed by a comma and a space – except the last one. This format is required and can be tricky to figure out. First use recursion to get the values to print correctly, then add the formatting.

**Problem 2: Power Method**

Implement a static method using the more efficient power method from the notes. This is the version a base case and two recursive cases, one for even and one for odd exponents. The preconditions are a base of type double, and a non-negative exponent of type int.

In main(), prompt your user for a base and exponent, and output the results in sentence form.

**Problem 3: Fibonaccis**

Use a for loop in a static method to calculate the number of Fibonacci values passed to the method: fibs(5) will calculate and print the first 5 Finonaccis: 1 1 2 3 5

*F0* = 1, *F1* = 1, *F2* = 2, *F3* = 3, *F4* = 5, *F5* = 8, and in general

*Fi+2* = *Fi* + *Fi+1* for *i* = 0, 1, 2 . . .

Please use only the above definition for this assignment.

Write a driver in main()that tests this method.

**Problem 4: nth Fibonacci**

Write a recursive static method that has one parameter n of type of type int which returns the nth Fibonacci number.

fibval(3) returns 2