Tutorial : Recursion

Question 1: Write a recursive method that computes n!.

n! (Factorial) is described as:

$$n! = \begin{cases} 1 & if\ n = 0 \\ (n-1) * n & if\ n > 0 \end{cases}$$

The method should be written as: public int factorial (int n)

Question 2: Write a recursive method that calculates the nth number in the Fibonacci sequence.

The Fibonacci sequence is described as:

An infinite sequence that starts with 0 and 1, as the 0th and 1st elements, respectively. Afterwards, each number in the sequence is the sum of the two numbers before it. The 2nd number in the sequence would be the 0th number plus the 1st, 0+0 = 1. The 3rd number in the sequence would be the 1st plus the second, 1+1 = 2. And so on.

Example:

n	0	1	2	3	4	5	6	7	8
nth Fibonacci	0	1	1	2	3	5	8	13	21

The method should be written as: public int Fib(int n)