Lab : Recursion

MyMath
+ Power(base : int, exp : int) : int + Sum(n : int) : int + Factorial(n : int) : int + Mod (val : int, divisor : int) : int

Implement the class MyMath as follows:

Power(base : int, exp : int) : int

- Recursively calculate the value of base to the power of exp, base^exp. Example: Power(2,3) = 2*2*2 = 8.

Sum(n : int) : int

- Recursively calculate the sum of all numbers between 0 and n. Example: Sum(5) = 0+1+2+3+4+5 = 15.

Factorial(n : int) : int

- Recursively calculate the factorial of n, or n!. Example: Factorial(5) = 1*2*3*4*5 = 1200

Mod (val : int, divisor : int) : int

- Recursively calculate the remainder of dividing val by the divisor. Example: Mod(8,3) = 2. Do not use %.