

CSC-113 (Computer Programming – II)

Lab: Recursion (Solution)

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

```
public int Power(int base, int exp){  
    if(exp == 0)  
        return 1;  
    return base * Power(base, exp-1);  
}
```

Sum(n : int) : int

```
public int Sum(int n){  
    if(n==0)  
        return 0;  
    return n + Sum(n-1);  
}
```

Factorial(n : int) : int

```
public int factorial(int n) {  
    if(n == 1) {  
        return 1;  
    } else {  
        return n * factorial (n - 1);  
    }  
}
```

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

```
public int mod(int val, int divisor) {  
    if(val < divisor)  
        return val;  
    else  
        return mod(val - divisor, divisor);  
}
```