

## Optional

### Riemann Sum Lab – Part 1 (30 pts)

In this part, you will accept the user inputs for a series of numbers, including left and right end points, the number subintervals you are going to partition, plus the position of the heights (function values) you are going to calculate. The output should be all the partition points,  $x_k, k = 1, 2, 3, \dots, n$

### Riemann Sum Lab – Part 2 (30 pts)

In this part, you will

1) implement a function  $f(x)$  and

2) in another function called “calcRiemannSum( )” (public double) to find the sum  $\sum_{k=1}^n f(x_k)$  and

finally return  $w \sum_{k=1}^n f(x_k)$ , or  $S = \sum_{k=1}^n S_k \approx \sum_{k=1}^n f(x_k) \Delta x_k$