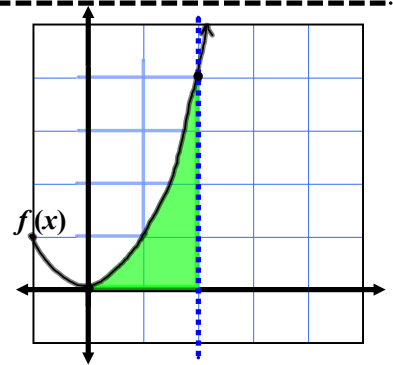


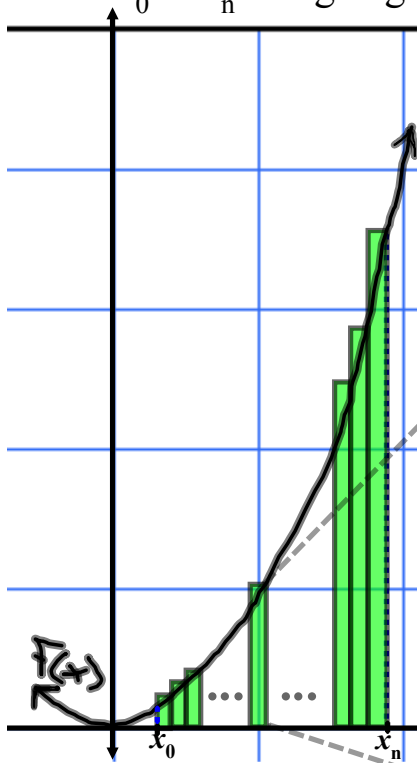
Calculus AB

4-2
Area

Find the area bounded by the x -axis and $f(x) = x^2$ between 0 and 2.



Develop a formula using Sigma Notation to add up the area of each rectangle from x_0 to x_n using Right Hand estimation.



How many rectangles are used to estimate the area?

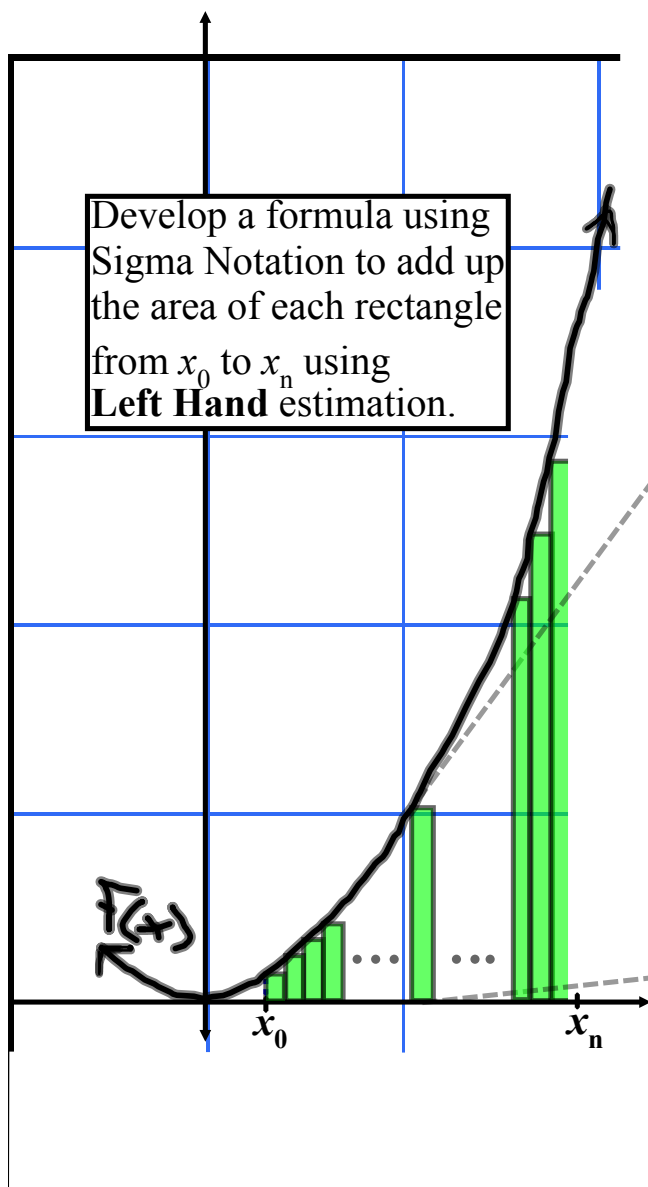
How do I calculate the area of any generic rectangle?

How do I calculate Δx ?

What is the formula using Sigma to add all the areas?

$$\Sigma$$

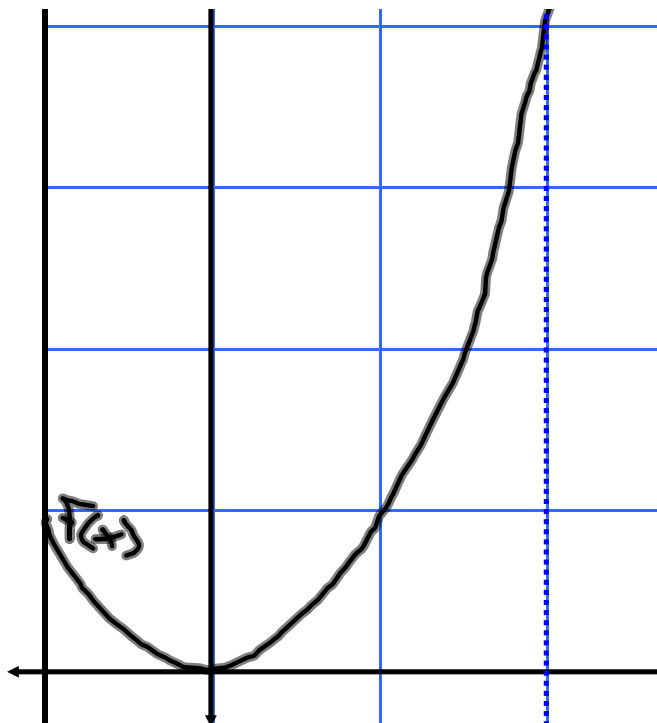
Find the area bounded by the x -axis and $f(x) = x^2$ between 0 and 2 using Right Hand estimation with 4 rectangles.



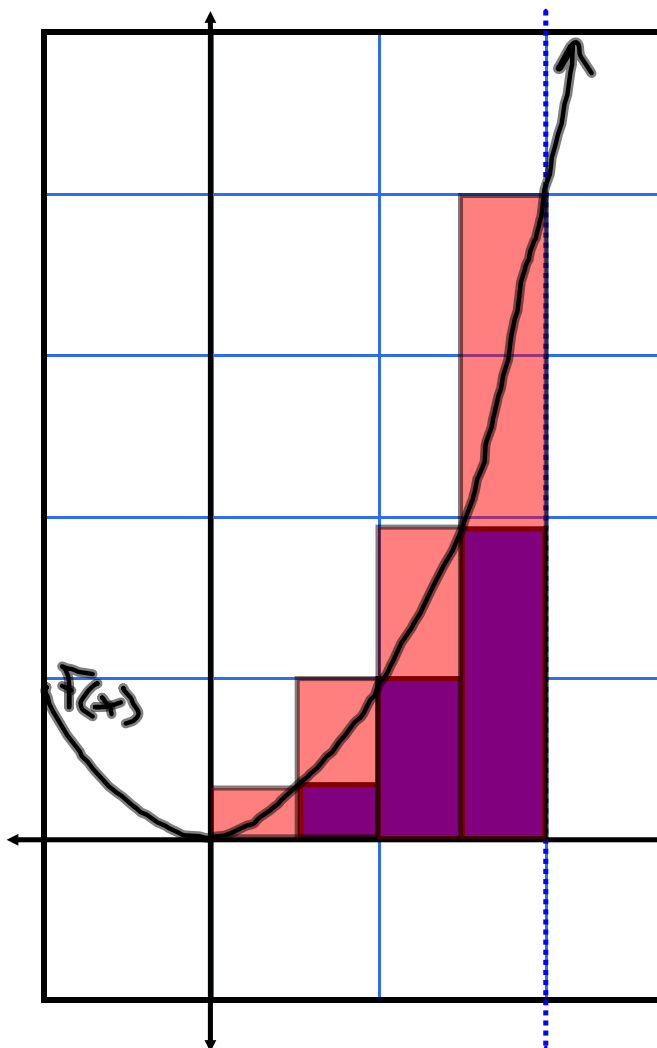
What is the formula using Sigma to add all the areas?

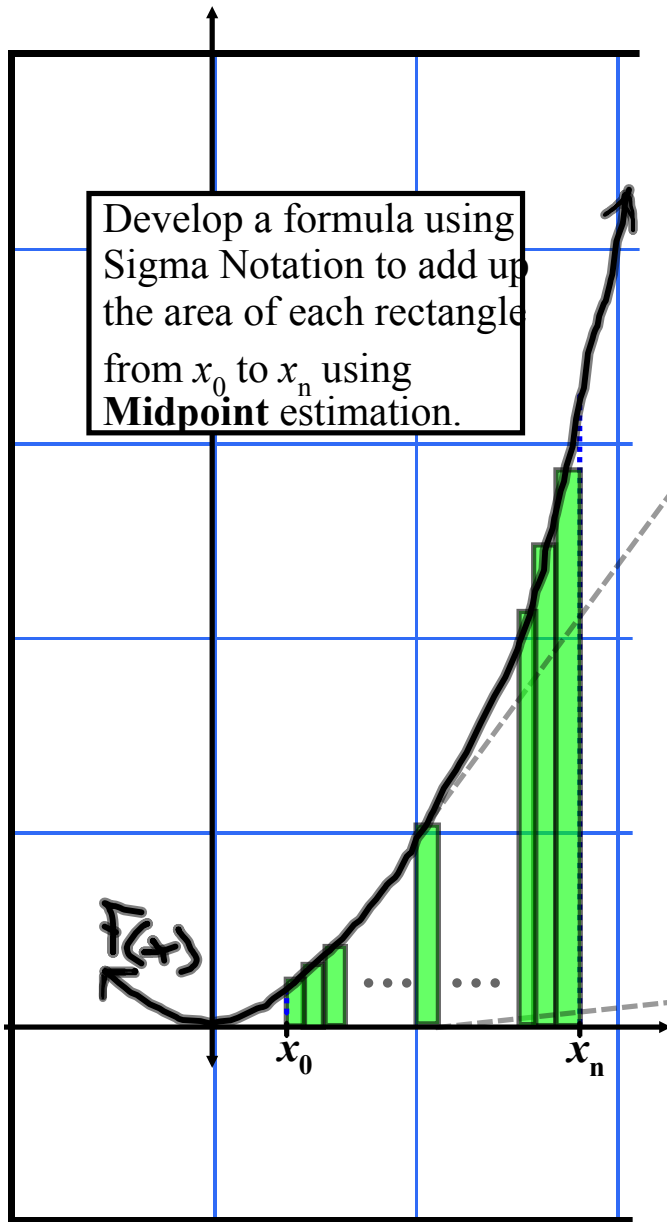
$$\Sigma$$

Find the area bounded by the x -axis and $f(x) = x^2$ between 0 and 2 using Left Hand estimation with 4 rectangles.



Compare Right Hand estimation to Left Hand estimation.





What is the formula using Sigma to add all the areas?

Σ

Find the area bounded by the x -axis and $f(x) = x^2$ between 0 and 2 using Midpoint estimation with 4 rectangles.

Assignment:
Pg. 268
29-33 odd,
41, 43, 73, 75