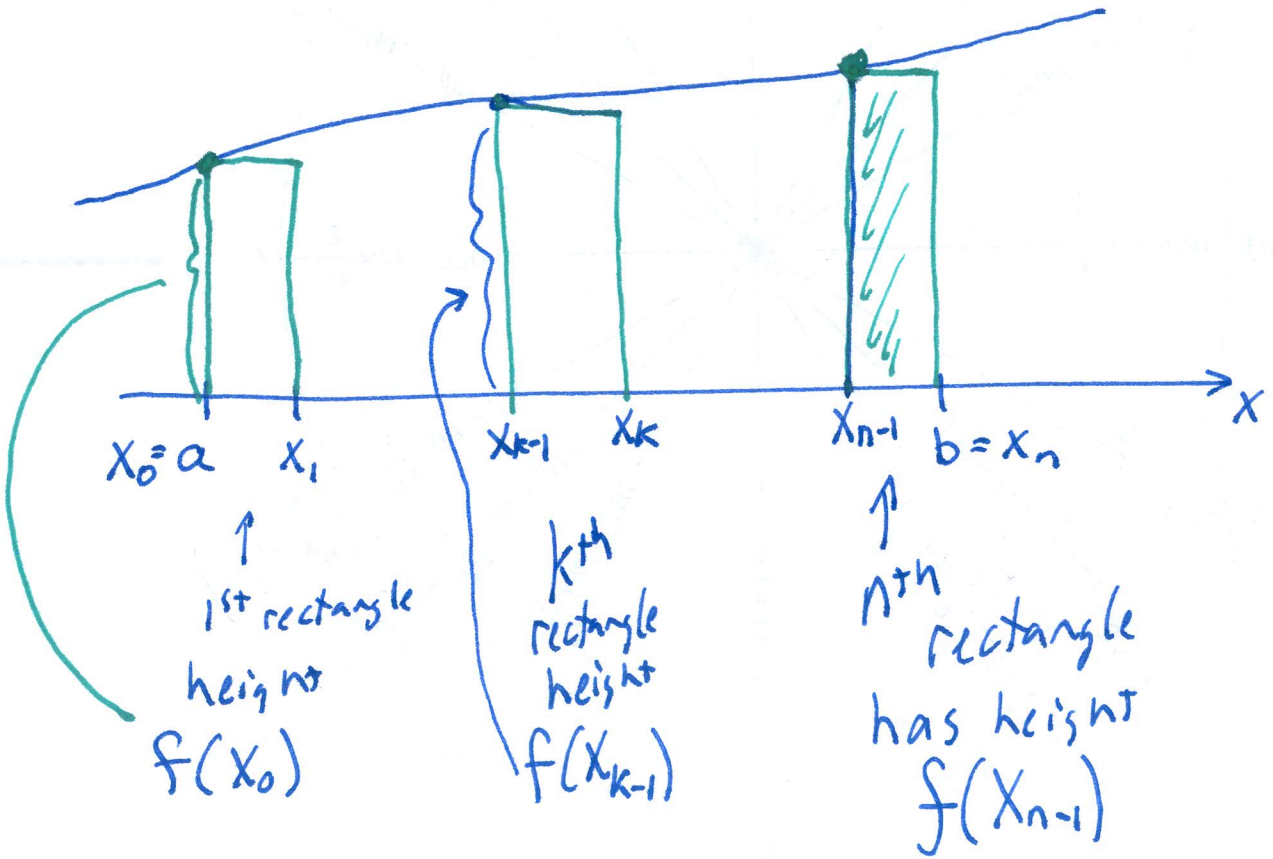
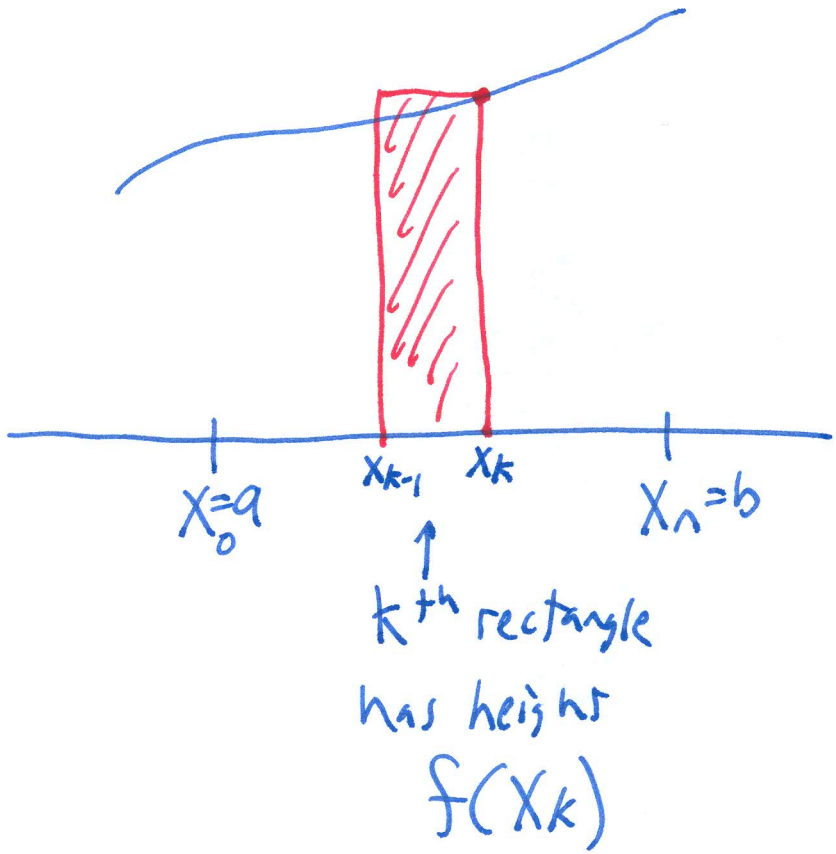
Day 34 is Thursday, Nov 15, 2012

Observe that for a Left Sum, the k^{th} rectangle has height $f(x_{k-1})$

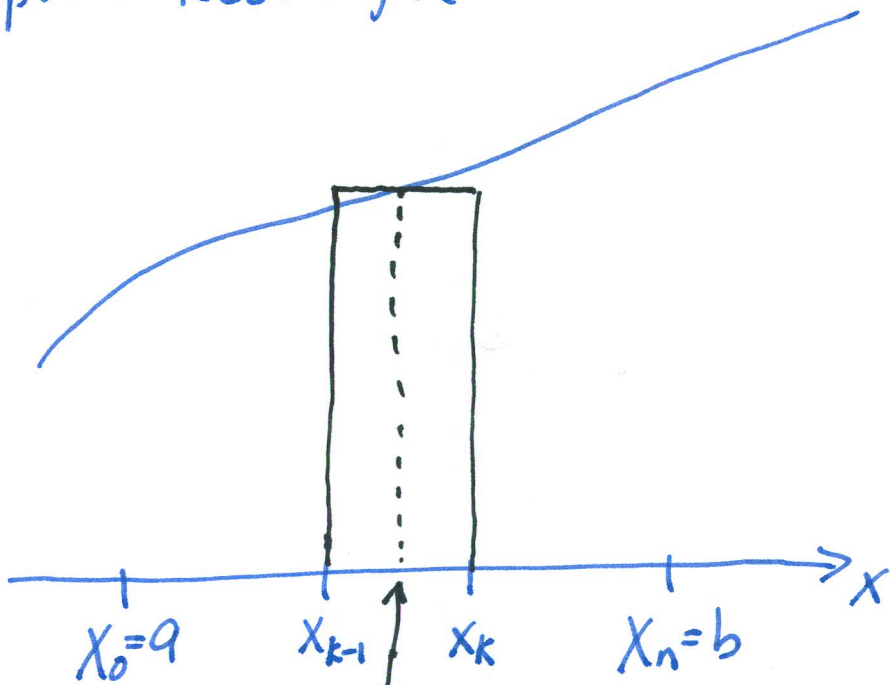


For Right Sum R_n, the the k^{th} rectangle has height $f(x_k)$



We can also have rectangles that touch the graph at some other x-value in the interval.

Example Midpoint Rectangle



the midpoint of the interval has x-coordinate $\frac{x_{k-1}+x_k}{2}$, the average of the x-values of endpoints

So the height of the rectangle is $f(c_k)$ where $c_k = \frac{x_{k-1}+x_k}{2}$