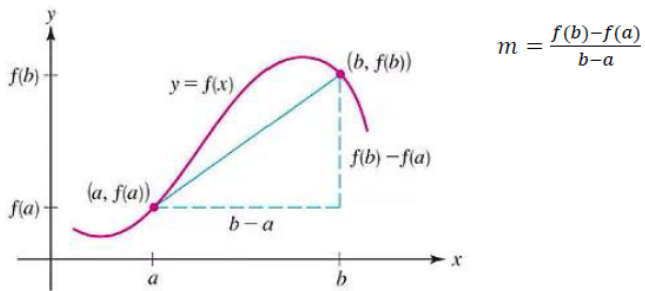


### Average Rate of Change

The average rate of change,  $m$ , of a function  $f$  on the interval  $[a, b]$  is given by the slope of the secant line.



$$\text{Average Rate of Change of } f(x) \text{ on } [a, b] = \frac{f(b) - f(a)}{b - a}$$

### Average Rate of Change (slope of the secant line)

If the points  $(a, f(a))$  and  $(b, f(b))$  are on the graph of  $f(x)$  the average rate of change of  $f(x)$  on the interval  $[a, b]$  is

$$\frac{f(b) - f(a)}{b - a}$$