## MEAN VALUE THEOREM

If f is continuous on the closed interval [a, b] and differentiable on the open interval (a, b), then <u>there exists</u> a number c in (a, b) such that

$$f'(c) = \frac{f(b) - f(a)}{b - a}$$
  
Basically, the MVT says ...  
Instantaneous Rate  
of Change (slope of  
a tangent line at some  
point c) = Average Rate of  
Change (slope of  
secant line joining  
the endpoints) =  $a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rate of Change (slope of secant line joining the endpoints) \\ a = \begin{bmatrix} Average Rat$