

Derivadas básicas

$$\frac{d}{dx}[cu] = c'$$

$$\frac{d}{dx}[u \pm v] = u' \pm v'$$

$$\frac{d}{dx}[c] = 0$$

$$\frac{d}{dx}[x] = 1$$

$$\frac{d}{dx}[e^u] = e^u u'$$

$$\frac{d}{dx}[u^n] = n^{n-1}u'$$

$$\frac{d}{dx}\left[\frac{u}{v}\right] = \frac{u \cdot v' - u' \cdot v}{v^2}$$

$$\frac{d}{dx}[u \cdot v] = u \cdot v' + u' \cdot v$$

$$\frac{d}{dx}[|u|] = \frac{u}{|u|}(u'), u \neq 0$$

Derivadas de funciones logarítmicas

$$\frac{d}{dx}[\log_b u] = \frac{u'}{(\ln a)u}$$

$$\frac{d}{dx}[\ln u] = \frac{u'}{u}$$

Derivadas de funciones Trigonómicas

$$\frac{d}{dx}[\sin u] = (\cos u)u'$$

$$\frac{d}{dx}[\csc u] = -(\csc u \cdot \cot u)u'$$

$$\frac{d}{dx}[\cos u] = -(\sin u)u'$$

$$\frac{d}{dx}[\sec u] = (\sec u \cdot \tan u)u'$$

$$\frac{d}{dx}[\tan u] = (\sec^2 u)u'$$

$$\frac{d}{dx}[\cot u] = -(\csc u)u'$$

Derivadas de funciones Trigonómicas inversas

$$\frac{d}{dx}[\sin^{-1} u] = \frac{u'}{\sqrt{1-u^2}}$$

$$\frac{d}{dx}[\cot^{-1} u] = \frac{-u'}{1+u^2}$$

$$\frac{d}{dx}[\cos^{-1} u] = \frac{-u'}{\sqrt{1-u^2}}$$

$$\frac{d}{dx}[\sec^{-1} u] = \frac{u'}{|u|\sqrt{u^2-1}}$$

$$\frac{d}{dx}[\tan^{-1} u] = \frac{u'}{1+u^2}$$

$$\frac{d}{dx}[\csc^{-1} u] = \frac{-u'}{|u|\sqrt{u^2-1}}$$