

## DERIVATIVES OF INVERSE TRIG FUNCTIONS (§3.8)

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

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

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

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

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

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