$$\frac{d}{dx}(y) = \frac{d}{dx}(\arccos x)$$

$$y = \arccos x$$

$$\cos(y) = x$$

$$\frac{d}{dx}(\cos y) = \frac{d}{dx}(x)$$

$$-\sin(y)\frac{dy}{dx} = 1$$

$$\frac{dy}{dx} = \frac{-1}{\sin(y)}$$

$$\frac{dy}{dx} = \frac{-1}{\sqrt{1-x^2}}$$