

$$* 14. y = x\sqrt{1-x^2} - \arccos x$$

$$y' = x \left(\frac{1}{2} (1-x^2)^{-1/2} (-2x) \right) + \sqrt{1-x^2} - \left(\frac{-1}{\sqrt{1-x^2}} \right)$$

$$y' = \frac{-x^2}{\sqrt{1-x^2}} + \sqrt{1-x^2} + \frac{1}{\sqrt{1-x^2}}$$

$$y' = \frac{-x^2 + 1 - x^2 + 1}{\sqrt{1-x^2}}$$

$$y' = \frac{2-2x^2}{\sqrt{1-x^2}}$$

$$y' = \frac{2(1-x^2)}{(1-x^2)^{1/2}}$$

$$y' = 2\sqrt{1-x^2}$$

$$15. \arccos\left(\frac{x}{4}\right) = y$$

$$\sec y = \frac{x}{4}$$

$$\sec y \tan y \frac{dy}{dx} = \frac{1}{4}$$

$$\frac{dy}{dx} = \frac{1}{\sec y \tan y}$$

$$\frac{dy}{dx} = \frac{1}{4\left(\frac{x}{4}\right)\left(\frac{\sqrt{x^2-16}}{4}\right)}$$

$$= \frac{1}{\frac{x\sqrt{x^2-16}}{4}}$$

$$\frac{dy}{dx} = \frac{4}{x\sqrt{x^2-16}}$$

