

Name: \_\_\_\_\_

Find  $y'$ :

a)  $y = 2 \arctan \sqrt{x}$

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

b)  $y = 3 \sin^{-1}(3x^2)$

$$y' = 3 \cdot \frac{1}{\sqrt{1 - (3x^2)^2}} (6x)$$
$$= \frac{18x}{\sqrt{1 - 9x^4}}$$