Find derivative.

1) $y = \tan^{-1}(3x)$

$$\frac{1}{1+(3x)^2} \cdot 3 = \frac{3}{1+9x^2}$$

2) $\frac{d}{dx} \sin^{-1}(2x)$

$$= \frac{1}{\sqrt{1-(2x)^2}} \cdot 2 = \frac{2}{\sqrt{1-4x^2}}$$

3) $y = \sec^{-1}(e^{2x})$

$$\frac{1}{|e^{2x}| \cdot \sqrt{(e^{2x})^2 - 1}} \cdot 2e^{2x} = \frac{2}{\sqrt{e^{4x}-1}}$$

4) $g(x) = \frac{\arcsin(3x)}{x}$

$$g'(x) = \frac{x\left(\frac{1}{\sqrt{1-(3x)^2}} \cdot 3\right) - \left(\sin^{-1}(3x)\right)}{x^2}$$

$$g'(x) = \frac{\frac{3x}{\sqrt{1-9x^2}} - \left(\sin^{-1}(3x)\right)}{x^2}$$