Derivatives of Inverse Trig Functions
Worksheet 1

Note: Remember that inverse trig functions can be written in two forms. For example $\arccos x$ and $\cos^{-1} x$ mean the same thing.

Directions: Find the derivative of each of the following.

#1. $y = \arcsin(x^2)$

#2. $y = \tan^{-1} 5x$

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

#4. $y = \arcsin\left(\frac{x}{2}\right)$

#5. $y = \frac{1}{4} \arctan\left(\frac{x}{4}\right)$

#6. $y = \sin^{-1}\left(\frac{1}{x}\right)$

#7. $y = \arctan(e^x)$

#8. $y = \arcs\csc(x^3)$

#9. $y = \csc^{-1}(3x)$

#10. $y = \arccot\left(\frac{x}{5}\right)$