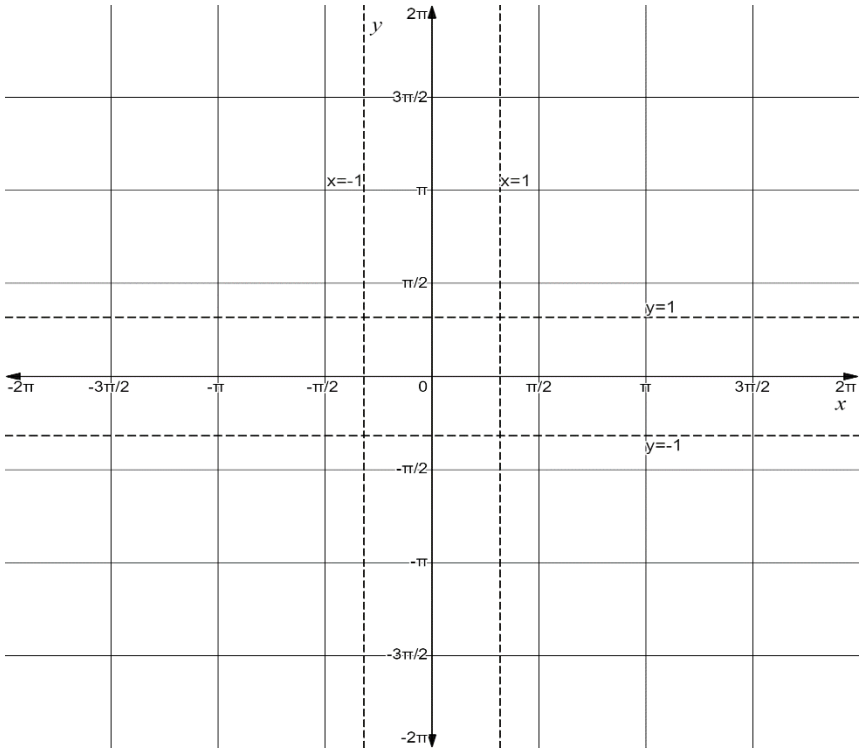
Name: _____ Date: _____

Learning Goal 3.5	Using the last derivative rules (for now).

Consider $y = \sin x$ and the

inverse function $x = \sin y$



And now the derivative

Again, but with $y = \tan^{-1} x$

Assignment # 49 – 63 Quiz Next Day!

Example Differentiate.

a. $y = \dfrac{1}{\sin^{-1} x}$

b. $f(x) = x \arctan \sqrt{x}$

Derivatives of Inverse Trigonometric Functions

$\dfrac{d}{dx}(\sin^{-1} x) =$	$\dfrac{d}{dx}(\cos^{-1} x) =$	$\dfrac{d}{dx}(\tan^{-1} x) =$
$\dfrac{d}{dx}(\csc^{-1} x) =$	$\dfrac{d}{dx}(\sec^{-1} x) =$	$\dfrac{d}{dx}(\cot^{-1} x) =$