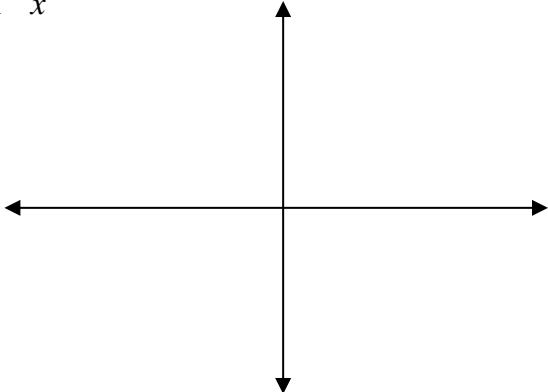
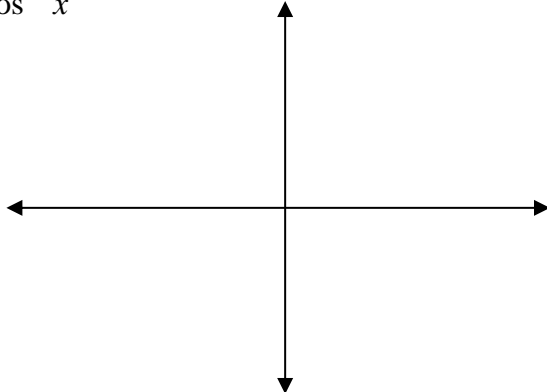
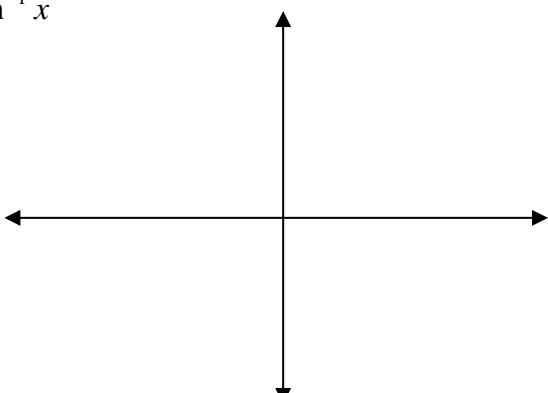
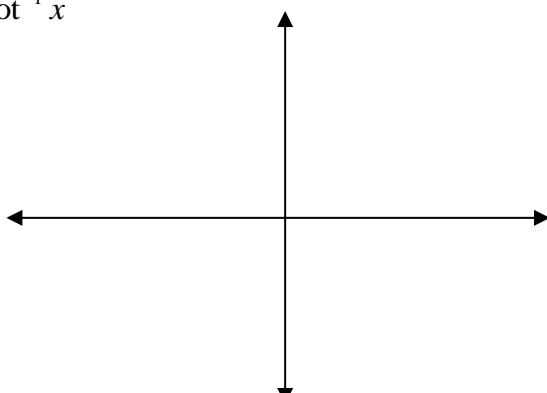
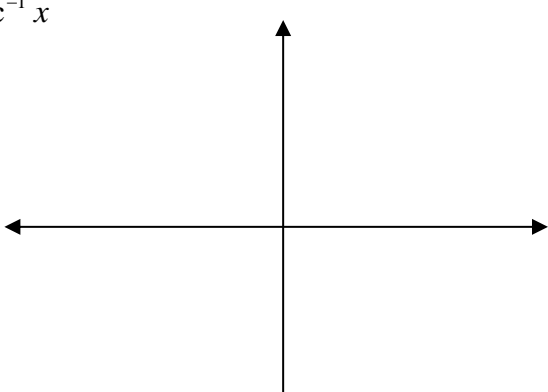
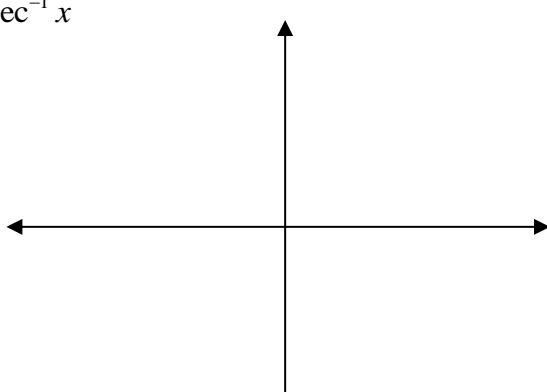


Inverse Trig Functions Review

Draw a sketch of each inverse function and identify the range.

$y = \sin^{-1} x$ 	$y = \cos^{-1} x$ 
$y = \tan^{-1} x$ 	$y = \cot^{-1} x$ 
$y = \csc^{-1} x$ 	$y = \sec^{-1} x$ 

Notes about Inverses:

- ✓
- ✓
- ✓
- ✓

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Examples:

1. $y = \sin^{-1}(6x)$

2. $f(x) = \cot^{-1}\left(\frac{x^2}{2}\right)$

3. Evaluate $f'(2\sqrt{3})$, where $f(x) = x \tan^{-1}\left(\frac{x}{2}\right)$

4. Find the equation of the line tangent to the graph of $g(x) = \sec^{-1} 2x$ at the point $\left(1, \frac{\pi}{3}\right)$

$$5. y = \tan^{-1}\left(\frac{x}{7}\right)$$

$$6. y = \sec^{-1}(2x^3)$$

$$7. y = \sin^{-1}(e^{3x})$$

$$8. y = \cos^{-1}(\ln x)$$

$$9. y = \csc^{-1}\left(\frac{x}{6}\right)$$

$$10. y = \cot^{-1}(x^5)$$