6-8

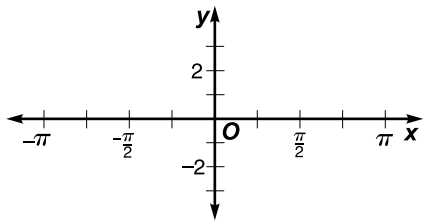
Practice

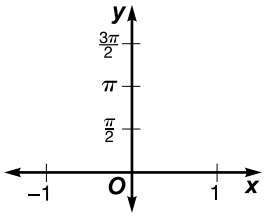
Trigonometric Inverses and Their Graphs

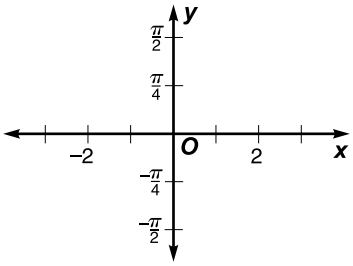
Write the equation for the inverse of each function. Then graph the function and its inverse.

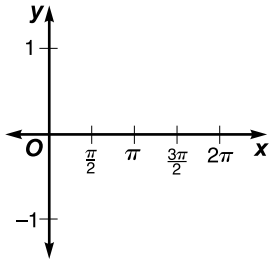
1. $y = \tan 2x$

2. $y = \frac{\pi}{2} + \text{Arccos } x$









Find each value.

3. $\text{Arccos } (-1)$

4. $\text{Arctan } 1$

5. $\text{Arcsin } \left(-\frac{1}{2}\right)$

6. $\text{Sin}^{-1} \frac{\sqrt{3}}{2}$

7. $\text{Cos}^{-1} \left(\sin \frac{\pi}{3}\right)$

8. $\tan \left(\text{Sin}^{-1} 1 - \text{Cos}^{-1} \frac{1}{2}\right)$

9. ***Weather*** The equation $y = 10 \sin \left(\frac{\pi}{6}t - \frac{2\pi}{3}\right) + 57$ models the average monthly temperatures for Napa, California. In this equation, t denotes the number of months with January represented by $t = 1$. During which two months is the average temperature 62°?