

**State the domain and range, then graph the following inverse functions.**

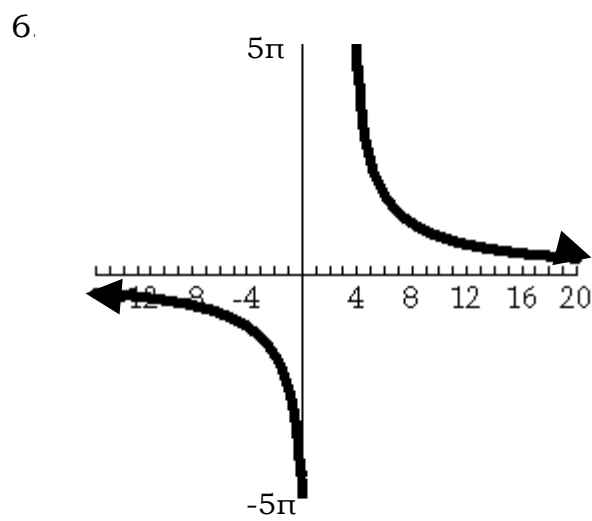
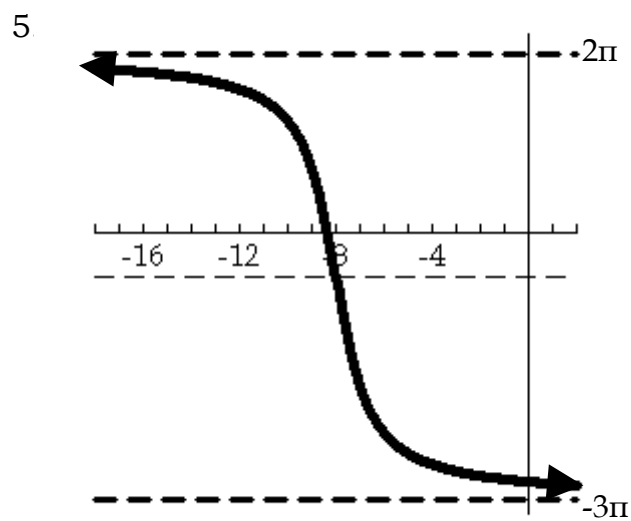
1.  $y = \pi + 4\text{Arcsin}\frac{1}{2}(x-5)$

2.  $y = -4\pi + \text{Arc cos}(x+3)$

3.  $y = \frac{\pi}{2} + 3\text{Arc tan}(x-9)$

4.  $y = 5\text{Arc sec}4\left(x - \frac{1}{4}\right)$

**Write an equation to match the following graphs of inverse functions.**



Given the EXACT values for the following; x is in radians,  $\theta$  is in degrees.

7.  $\theta = \text{Arc sin}\left(-\frac{1}{2}\right)$

= \_\_\_\_\_

8.  $\theta = \text{Arc tan}(\sqrt{3})$

= \_\_\_\_\_

9.  $x = \text{Arc sec}(-1)$

= \_\_\_\_\_

10.  $x = \text{Arc sin}\left(-\frac{\sqrt{2}}{2}\right)$

= \_\_\_\_\_

11.  $\theta = \text{Arc cos}(-1)$

= \_\_\_\_\_

12.  $x = \cos(\text{Arc sin } 1)$

= \_\_\_\_\_

13.  $x = \sec\left(\text{Tan}^{-1}\frac{1}{2}\right)$

= \_\_\_\_\_

14.  $x = \text{Arc csc}\left(\csc\frac{3\pi}{4}\right)$

= \_\_\_\_\_

15.  $x = \cot\left(\text{Sin}^{-1}\left(-\frac{12}{13}\right)\right)$

= \_\_\_\_\_

16.  $x = \csc\left(\text{Arc tan}\frac{5}{4}\right)$

= \_\_\_\_\_