

Chapter 4 Test Review

Find the inverse of the given function. Graph the function and its inverse on the same graph.

1) $f(x) = \frac{x+6}{3}$

2) $g(x) = \frac{2}{3}x - 1$

Find the exact value of the inverse circular function. The answer should be expressed in terms of π , if necessary.

3) $\sin^{-1}\left(\frac{-\sqrt{2}}{2}\right)$

4) $\text{Arc cot}(0)$

5) $\tan^{-1}\left(\frac{\sqrt{3}}{3}\right)$

6) $\text{Csc}^{-1}(2)$

7) $\text{Arc cos}(1)$

8) $\text{Arc sec}(-2)$

Find the exact value of the expression, using radicals or π , if necessary.

9) $\cos\left(\cos^{-1}\left(\frac{4}{7}\right)\right)$

10) $\tan\left(\text{Arccsc}\left(\frac{17}{8}\right)\right)$

11) $\sin(\text{Arc tan } 5)$

12) $\sec\left(\cos^{-1}\left(\frac{-3}{5}\right)\right)$

13) $\sin\left(\cos^{-1}\left(\frac{1}{6}\right) + \cos^{-1}\left(\frac{2}{5}\right)\right)$

14) $\csc\left(\frac{\pi}{2} - \text{Arc sec}\left(\frac{5}{4}\right)\right)$

Graph by creating a table of values and a graph for the related sin or cos function, then use this information to create a table of inverse function values and a graph of the given inverse function.

15) $y = \cos^{-1}(x)$

16) $y = \cos^{-1}\left(\frac{1}{2}x\right)$

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

18) $y = \sin^{-1}(2x)$