

# Practice Worksheet

## Principal Values of the Inverse Trigonometric Functions

Find each value.

1.  $\text{Arcsin}(-1)$

2.  $\text{Arccos} 1$

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

4.  $\text{Cos}^{-1} \frac{1}{2}$

5.  $\text{Arcsin} 1$

6.  $\text{Tan}^{-1}\left(-\frac{\sqrt{3}}{3}\right)$

7.  $\cos\left(\text{Cos}^{-1}\left(-\frac{1}{2}\right)\right)$

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

9.  $\tan\left(\text{Tan}^{-1} \frac{\sqrt{3}}{3}\right)$

10.  $\text{Cos}^{-1}\left(\text{Cos} \frac{\pi}{2}\right)$

11.  $\text{Sin}^{-1}\left(\sin \frac{\pi}{4}\right)$

12.  $\text{Tan}^{-1}\left(\tan \frac{\pi}{3}\right)$

13.  $\cos\left(\text{Arcsin} \frac{1}{2}\right)$

14.  $\sin\left(\text{Arccos} \frac{\sqrt{3}}{2}\right)$

15.  $\tan\left(\text{Arcsin} \frac{\sqrt{3}}{2}\right)$

16.  $\tan\left(\text{Arccos} \frac{5}{13}\right)$

17.  $\cos\left(\text{Arcsin} \frac{6}{10}\right)$

18.  $\sin\left(\text{Arccos} \frac{3}{5}\right)$

19.  $\sin\left[\text{Cos}^{-1}\left(\frac{\sqrt{2}}{2}\right) - \frac{\pi}{4}\right]$

20.  $\cos\left[\text{Sin}^{-1}\left(\frac{\sqrt{2}}{2}\right) + \frac{\pi}{4}\right]$

21.  $\tan\left[\frac{3\pi}{4} + \text{Sin}^{-1} \frac{\sqrt{2}}{2}\right]$