

# Inverse Trigonometric Ratios

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find the value of each inverse trigonometric ratio in degrees.**

1)  $\cot^{-1}(1)$

\_\_\_\_\_

2)  $\cot^{-1}(\sqrt{3})$

\_\_\_\_\_

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

\_\_\_\_\_

4)  $\cos^{-1}\left(\frac{1}{2}\right)$

\_\_\_\_\_

5)  $\sin^{-1}(1)$

\_\_\_\_\_

6)  $\cot^{-1}(0)$

\_\_\_\_\_

7)  $\cos^{-1}(1)$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

**Find the value of each inverse trigonometric ratio in radians.**

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

\_\_\_\_\_

2)  $\cos^{-1}(1)$

\_\_\_\_\_

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

\_\_\_\_\_

4)  $\sec^{-1}(\sqrt{2})$

\_\_\_\_\_

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

\_\_\_\_\_

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

\_\_\_\_\_

7)  $\tan^{-1}(1)$

\_\_\_\_\_

8)  $\csc^{-1}(2)$

\_\_\_\_\_

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

\_\_\_\_\_

# Inverse Trigonometric Ratios

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Find the value of each inverse trigonometric ratio in degrees.

1)  $\cot^{-1}(1)$

$$\underline{45^\circ}$$

2)  $\cot^{-1}(\sqrt{3})$

$$\underline{30^\circ}$$

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

$$\underline{60^\circ}$$

4)  $\cos^{-1}\left(\frac{1}{2}\right)$

$$\underline{60^\circ}$$

5)  $\sin^{-1}(1)$

$$\underline{90^\circ}$$

6)  $\cot^{-1}(0)$

$$\underline{90^\circ}$$

7)  $\cos^{-1}(1)$

$$\underline{0^\circ}$$

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

$$\underline{30^\circ}$$

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

$$\underline{60^\circ}$$

Find the value of each inverse trigonometric ratio in radians.

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

$$\underline{\frac{\pi}{3}}$$

2)  $\cos^{-1}(1)$

$$\underline{0}$$

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

$$\underline{\frac{\pi}{6}}$$

4)  $\sec^{-1}(\sqrt{2})$

$$\underline{\frac{\pi}{4}}$$

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

$$\underline{\frac{\pi}{6}}$$

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

$$\underline{\frac{\pi}{4}}$$

7)  $\tan^{-1}(1)$

$$\underline{\frac{\pi}{4}}$$

8)  $\csc^{-1}(2)$

$$\underline{\frac{\pi}{6}}$$

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

$$\underline{\frac{\pi}{3}}$$