Inverse Trigonometric Ratios

Name:_____ Date:_____

Find the value of each inverse trigonometric ratio in degrees.

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

$90°$

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

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

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

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

6) $\cot^{-1}\left(\frac{\sqrt{3}}{3}\right)$

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

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

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

Find the value of each inverse trigonometric ratio in radians.

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

$\frac{\pi}{6}$

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

3) $\tan^{-1}(0)$

4) $\cot^{-1}\left(\sqrt{3}\right)$

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

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

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

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

9) $\sin^{-1}(0)$

Inverse Trigonometric Ratios

Name:_____ Date:_____

Find the value of each inverse trigonometric ratio in degrees.

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

90°

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

30°

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

30°

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

60°

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

45°

6) $\cot^{-1}\left(\frac{\sqrt{3}}{3}\right)$

60°

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

60°

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

30°

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

30°

Find the value of each inverse trigonometric ratio in radians.

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

$\frac{\pi}{6}$

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

$\frac{\pi}{3}$

3) $\tan^{-1}(0)$

0

4) $\cot^{-1}\left(\sqrt{3}\right)$

$\frac{\pi}{6}$

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

$\frac{\pi}{4}$

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

$\frac{\pi}{3}$

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

0

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

$\frac{\pi}{2}$

9) $\sin^{-1}(0)$

0