Inverse Trigonometric Ratios

Name:_____ Date:_____

Find the value of each inverse trigonometric ratio in degrees.

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

2) $\cos^{-1}(0)$ _____

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

4) $\tan^{-1}(\sqrt{3})$ _____

5) $\cot^{-1}(\frac{\sqrt{3}}{3})$ _____

6) $\csc^{-1}(\frac{2\sqrt{3}}{3})$ _____

7) $\csc^{-1}(2)$ _____

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

9) $\sin^{-1}(\frac{1}{2})$ _____

Find the value of each inverse trigonometric ratio in radians.

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

2) $\sin^{-1}(\frac{\sqrt{2}}{2})$ _____

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

4) $\tan^{-1}(\frac{\sqrt{3}}{3})$ _____

5) $\cos^{-1}(\frac{1}{2})$ _____

6) $\csc^{-1}(\sqrt{2})$ _____

7) $\cot^{-1}(0)$ _____

8) $\tan^{-1}(0)$ _____

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

Inverse Trigonometric Ratios

Name:_____ Date:_____

Find the value of each inverse trigonometric ratio in degrees.

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

45°

2) $\cos^{-1}(0)$

90°

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

60°

4) $\tan^{-1}(\sqrt{3})$

60°

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

60°

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

60°

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

30°

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

45°

9) $\sin^{-1}(\frac{1}{2})$

30°

Find the value of each inverse trigonometric ratio in radians.

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

$\frac{\pi}{4}$

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

$\frac{\pi}{4}$

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

$\frac{\pi}{3}$

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

$\frac{\pi}{6}$

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

$\frac{\pi}{3}$

6) $\csc^{-1}(\sqrt{2})$

$\frac{\pi}{4}$

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

$\frac{\pi}{2}$

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

0

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

$\frac{\pi}{6}$