

Name : _____

Inverse Trigonometric Ratios

Using Charts: S1

A) Find the value of each inverse trigonometric ratio in degrees.

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

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

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

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

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

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

B) Find the exact value of each inverse trigonometric ratio in radians.

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

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

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

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

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

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

Inverse Trigonometric Ratios

A) Find the value of each inverse trigonometric ratio in degrees.

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

90°

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

30°

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

0°

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

60°

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

45°

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

30°

B) Find the exact value of each inverse trigonometric ratio in radians.

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

 $\frac{\pi}{3}$

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

 $\frac{\pi}{4}$

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

 $\frac{\pi}{4}$

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

0

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

 $\frac{\pi}{6}$

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

 $\frac{\pi}{2}$