



Evaluate without a calculator:

1. $\sin\left(\frac{\pi}{6}\right)$ $\frac{1}{3}$

2. $\sec\left(\frac{\pi}{4}\right)$

3. $\tan\left(\frac{\pi}{3}\right)$ $\sqrt{3}$

4. $\csc\left(\frac{4\pi}{3}\right)$

5. $\cos\left(\frac{7\pi}{4}\right)$ $\frac{\sqrt{2}}{2}$

Find the angle that satisfies the following equations:

6. $\cos\theta = \frac{1}{2}; 0 \leq \theta \leq \pi$

7. $\tan\theta = \sqrt{3}; -\frac{\pi}{2} \leq \theta \leq \frac{\pi}{2}$

8. $\sin\theta = -\frac{\sqrt{2}}{2}; -\frac{\pi}{2} \leq \theta \leq \frac{\pi}{2}$

$\theta = \frac{\pi}{3}$

Evaluate without a calculator:

$$9. \sin \frac{\pi}{3}$$

$$10. \cos \frac{3\pi}{4}$$
$$= -\frac{\sqrt{2}}{2}$$

$$11. \csc \frac{-15\pi}{4}$$

$$12. \tan \left(\frac{\pi}{3} \right)$$
$$= \sqrt{3}$$

$$13. \sec \frac{5\pi}{6}$$

Review:

1. If $\cos \theta = \frac{5}{7}$ find all other trig identities.

2. Mr. Myrup is hanging Christmas lights. He places his 12 foot ladder at a 23° angle with the ground. How far away is the ladder from the house?