

Trigonometry Worksheet 3 - Answers

1. Find the values for sin, cos, and tan of $\frac{\pi}{3}$.

$$\sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}, \cos \frac{\pi}{3} = \frac{1}{2}, \tan \frac{\pi}{3} = \sqrt{3}.$$

2. Find the values for sin, cos, and tan of $\frac{\pi}{4}$.

$$\sin \frac{\pi}{4} = \frac{\sqrt{2}}{2}, \cos \frac{\pi}{4} = \frac{\sqrt{2}}{2}, \tan \frac{\pi}{4} = 1.$$

3. Find the values for sin, cos, and tan of $\frac{\pi}{6}$.

$$\sin \frac{\pi}{6} = \frac{1}{2}, \cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}, \tan \frac{\pi}{6} = \frac{\sqrt{3}}{3}.$$

4. Find $\sin\left(\frac{7\pi}{6}\right)$.

$$-\frac{1}{2}.$$

5. Find $\cos\left(\frac{5\pi}{6}\right)$.

$$-\frac{\sqrt{3}}{2}.$$

6. Find $\cos\left(\frac{2\pi}{3}\right)$.

$$-\frac{1}{2}.$$

7. Find $\sin\left(\frac{5\pi}{4}\right)$.

$$-\frac{\sqrt{2}}{2}.$$

8. Find $\tan\left(\frac{23\pi}{6}\right)$.

$$-\frac{\sqrt{3}}{3}.$$

9. Given $\triangle ABC$ right angled at B and $\angle ACB = \frac{\pi}{3}$. If $AC = 10$ find AB .

$$AB = 5\sqrt{3}.$$

10. Given $\triangle ABC$ right angled at B and $\angle ACB = \frac{\pi}{4}$. If $BC = 3$ find AC .

$$AC = 3\sqrt{2}.$$