

Trigonometry Worksheet 9 - Answers

Use the addition and subtraction formulas and special reference triangles to solve the following problems.

1. $\sin(15^\circ)$

$$\frac{\sqrt{6}-\sqrt{2}}{4}.$$

2. $\sin(75^\circ)$

$$\frac{\sqrt{2}+\sqrt{6}}{4}.$$

3. $\cos(15^\circ)$

$$\frac{\sqrt{6}+\sqrt{2}}{4}.$$

4. $\cos(75^\circ)$

$$\frac{\sqrt{6}-\sqrt{2}}{4}.$$

5. $\tan(165^\circ)$

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

6. $\sin\left(\frac{\pi}{12}\right)$

$$\frac{\sqrt{6}-\sqrt{2}}{4}.$$

7. $\cos\left(\frac{5\pi}{12}\right)$

$$\frac{\sqrt{6}-\sqrt{2}}{4}.$$

8. $\cos(195^\circ)$

$$-\frac{\sqrt{6}-\sqrt{2}}{4}.$$

9. Simplify $\sin(x - \pi)$

$$-\sin(x).$$

10. Simplify $\cos\left(x - \frac{\pi}{2}\right)$

$$\sin(x).$$