

$$5. \sin\left(\frac{11\pi}{12}\right) = \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$\cos\left(\frac{11\pi}{12}\right) = -\frac{\sqrt{6} - \sqrt{2}}{4}$$

$$\tan\left(\frac{11\pi}{12}\right) = -2 + \sqrt{3}$$

$$6. \sin\left(\frac{17\pi}{12}\right) = -\frac{\sqrt{6} - \sqrt{2}}{4}$$

$$\cos\left(\frac{17\pi}{12}\right) = -\frac{\sqrt{6} + \sqrt{2}}{4}$$

$$\tan\left(\frac{17\pi}{12}\right) = 2 + \sqrt{3}$$

$$7. \sin(105^\circ) = \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$\cos(105^\circ) = \frac{\sqrt{2} - \sqrt{6}}{4}$$

$$\tan(105^\circ) = -2 - \sqrt{3}$$

$$8. \frac{19\pi}{12}$$

$$\sin\left(\frac{19\pi}{12}\right) = -\frac{\sqrt{6} + \sqrt{2}}{4}$$

$$\cos\left(\frac{19\pi}{12}\right) = \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$\tan\left(\frac{19\pi}{12}\right) = -2 - \sqrt{3}$$

$$9. \sin(15^\circ) = \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$\cos(15^\circ) = \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$\tan(15^\circ) = \frac{\sqrt{3} - 1}{\sqrt{3} + 1}$$

$$10. \sin(2x) + \sin(x) = 0$$

$$x = 0, \frac{2}{3}\pi, \frac{4}{3}\pi$$

$$11. 8 \sin(2x) \sin(x) = 8 \cos(x)$$

$$x = \frac{\pi}{4}, \frac{\pi}{2}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{3\pi}{2}$$

$$12. \log \sin x \cos x$$

$$= 5 \sin 2x$$

$$13. 3 \sin x \cos x$$

$$= \frac{3}{a} \sin 2x$$

$$14. \frac{1}{2} \cos^2 x = \frac{1}{4}$$

$$= -\frac{1}{4} \cos 2x$$

$$6. \sin(\theta) = -3/5$$

$$\sin(2\theta) = \frac{-24}{25}$$

$$\cos(2\theta) = \frac{7}{25}$$

$$\tan(2\theta) = \frac{-24}{7}$$

$$16. \sec(\theta) = -2$$

$$\sin(2\theta) = -\frac{\sqrt{3}}{2}$$

$$\cos(2\theta) = -\frac{1}{2}$$

$$\tan(2\theta) = \sqrt{3}$$