

$$35) \cos \frac{13\pi}{12} \cos \left( \frac{3\pi}{4} + \frac{\pi}{3} \right)$$

$$\cos \frac{3\pi}{4} \cos \frac{\pi}{3} - \sin \frac{3\pi}{4} \sin \frac{\pi}{3}$$

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

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

$$37) \cos \frac{7\pi}{12} \cos \left( \frac{\pi}{3} + \frac{\pi}{4} \right)$$

$$\cos \frac{\pi}{3} \cos \frac{\pi}{4} - \sin \frac{\pi}{3} \sin \frac{\pi}{4}$$

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

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

$$39) \sin \frac{7\pi}{12} \sin \left( \frac{\pi}{3} + \frac{\pi}{4} \right)$$

$$\sin \frac{\pi}{3} \cos \frac{\pi}{4} + \cos \frac{\pi}{3} \sin \frac{\pi}{4}$$

$$\left( \frac{\sqrt{3}}{2} \right) \left( \frac{\sqrt{2}}{2} \right) + \left( \frac{1}{2} \right) \left( \frac{\sqrt{2}}{2} \right) = \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$41) \cos -\frac{5\pi}{12} = \cos \left( \frac{3\pi}{4} - \frac{7\pi}{6} \right)$$

$$\cos \frac{3\pi}{4} \cos \frac{7\pi}{6} + \sin \frac{3\pi}{4} \sin \frac{7\pi}{6}$$

$$\left( \frac{\sqrt{2}}{2} \right) \left( \frac{\sqrt{3}}{2} \right) + \left( \frac{\sqrt{2}}{2} \right) \left( -\frac{1}{2} \right) = \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$43) \cos -\frac{\pi}{12} \cos \left( \frac{\pi}{6} - \frac{\pi}{4} \right)$$

$$\cos \frac{\pi}{6} \cos \frac{\pi}{4} + \sin \frac{\pi}{6} \sin \frac{\pi}{4}$$

$$\left( \frac{\sqrt{3}}{2} \right) \left( \frac{\sqrt{2}}{2} \right) + \left( \frac{1}{2} \right) \left( \frac{\sqrt{2}}{2} \right) = \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$45) \sin \frac{11\pi}{12} \sin \left( \frac{5\pi}{4} - \frac{\pi}{3} \right)$$

$$\sin \frac{5\pi}{4} \cos \frac{\pi}{3} - \cos \frac{5\pi}{4} \sin \frac{\pi}{3}$$

$$\left( \frac{-\sqrt{2}}{2} \right) \left( \frac{1}{2} \right) - \left( \frac{-\sqrt{2}}{2} \right) \left( \frac{\sqrt{3}}{2} \right) = \frac{\sqrt{2} + \sqrt{6}}{4}$$

$$47) \cos -\frac{7\pi}{12} = \cos \left( \frac{2\pi}{3} - \frac{5\pi}{4} \right)$$

$$\cos \frac{2\pi}{3} \cos \frac{5\pi}{4} + \sin \frac{2\pi}{3} \sin \frac{5\pi}{4}$$

$$\left( -\frac{1}{2} \right) \left( \frac{-\sqrt{2}}{2} \right) + \left( \frac{\sqrt{3}}{2} \right) \left( \frac{\sqrt{2}}{2} \right) = \frac{\sqrt{2} + \sqrt{6}}{4}$$

$$36) \sin \frac{13\pi}{12} \sin \left( \frac{3\pi}{4} + \frac{\pi}{3} \right)$$

$$\sin \frac{3\pi}{4} \cos \frac{\pi}{3} + \cos \frac{3\pi}{4} \sin \frac{\pi}{3}$$

$$\left( \frac{\sqrt{2}}{2} \right) \left( \frac{1}{2} \right) + \left( \frac{-\sqrt{2}}{2} \right) \left( \frac{\sqrt{3}}{2} \right) = \frac{\sqrt{2} - \sqrt{6}}{4}$$

$$38) \cos \frac{17\pi}{12} \cos \left( \frac{5\pi}{4} + \frac{\pi}{6} \right)$$

$$\cos \frac{5\pi}{4} \cos \frac{\pi}{6} - \sin \frac{5\pi}{4} \sin \frac{\pi}{6}$$

$$\left( \frac{-\sqrt{2}}{2} \right) \left( \frac{\sqrt{3}}{2} \right) - \left( \frac{-\sqrt{2}}{2} \right) \left( \frac{1}{2} \right) = \frac{-\sqrt{6} + \sqrt{2}}{4}$$

$$40) \cos \frac{7\pi}{12} \cdot \frac{-\sqrt{6} + \sqrt{2}}{4}$$

$$42) \sin -\frac{5\pi}{12} = \sin \left( \frac{3\pi}{4} - \frac{7\pi}{6} \right)$$

$$\sin \frac{3\pi}{4} \cos \frac{7\pi}{6} - \cos \frac{3\pi}{4} \sin \frac{7\pi}{6}$$

$$\left( \frac{\sqrt{2}}{2} \right) \left( \frac{\sqrt{3}}{2} \right) - \left( \frac{\sqrt{2}}{2} \right) \left( \frac{1}{2} \right) = \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$44) \sin -\frac{\pi}{12} \sin \left( \frac{\pi}{6} - \frac{\pi}{4} \right)$$

$$\sin \frac{\pi}{6} \cos \frac{\pi}{4} - \cos \frac{\pi}{6} \sin \frac{\pi}{4}$$

$$\left( \frac{1}{2} \right) \left( \frac{\sqrt{2}}{2} \right) - \left( \frac{\sqrt{3}}{2} \right) \left( \frac{\sqrt{2}}{2} \right) = \frac{\sqrt{2} - \sqrt{6}}{4}$$

$$46) \cos \frac{11\pi}{12} \cos \left( \frac{5\pi}{4} - \frac{\pi}{3} \right)$$

$$\cos \frac{5\pi}{4} \cos \frac{\pi}{3} + \sin \frac{5\pi}{4} \sin \frac{\pi}{3}$$

$$\left( \frac{-\sqrt{2}}{2} \right) \left( \frac{1}{2} \right) + \left( \frac{-\sqrt{2}}{2} \right) \left( \frac{\sqrt{3}}{2} \right) = \frac{-\sqrt{2} - \sqrt{6}}{4}$$

$$48) \sin -\frac{7\pi}{12} = \sin \left( \frac{2\pi}{3} - \frac{5\pi}{4} \right)$$

$$\sin \frac{2\pi}{3} \cos \frac{5\pi}{4} - \cos \frac{2\pi}{3} \sin \frac{5\pi}{4}$$

$$\left( \frac{\sqrt{3}}{2} \right) \left( \frac{\sqrt{2}}{2} \right) - \left( \frac{1}{2} \right) \left( \frac{\sqrt{2}}{2} \right) = \frac{\sqrt{6} - \sqrt{2}}{4}$$