

$$\begin{aligned}
 3. \quad & \sin(15\pi) \\
 & \sin(15\pi - 2\pi) \\
 & \sin(13\pi) \\
 & \sin(13\pi - 2\pi) \\
 & \sin(11\pi) \\
 & \sin(9\pi) \\
 & \sin(7\pi) \\
 & \sin(5\pi) \\
 & \sin(3\pi) \\
 & \sin(\pi) \\
 & \sin = y \\
 & = \textcircled{0}
 \end{aligned}$$

$$\begin{aligned}
 4. \quad & \cot \frac{9\pi}{2} \\
 & \cot 4\frac{1}{2}\pi \\
 & \cot(4\frac{1}{2}\pi - 4\pi) \\
 & \cot\left(\frac{\pi}{2}\right) \\
 & \text{RECALL} \\
 & \cot \text{ IS } \frac{x}{y} \\
 & \frac{0}{1} \\
 & = \textcircled{0}
 \end{aligned}$$

$$\begin{aligned}
 5. \quad & \sec(-5\pi) \\
 & \sec(-5\pi + 6\pi) \\
 & \sec(\pi) \\
 & \text{RECALL SEC IS } \frac{1}{x} \\
 & \text{SO} \\
 & \frac{1}{-1} \\
 & = \textcircled{-1}
 \end{aligned}$$

$$6. \quad \sec 45^\circ \sin 60^\circ$$

$$\begin{aligned}
 & \text{"x"} \quad \text{"y"} \\
 & \left(\frac{1}{\frac{\sqrt{2}}{2}}\right) \left(\frac{\sqrt{3}}{2}\right) \\
 & \left(1 \cdot \frac{2}{\sqrt{2}}\right) \left(\frac{\sqrt{3}}{2}\right) \\
 & \frac{\sqrt{3}}{\sqrt{2}} \\
 & \frac{\sqrt{3} \cdot \sqrt{2}}{\sqrt{2} \cdot \sqrt{2}} \\
 & \frac{\sqrt{6}}{2}
 \end{aligned}$$

$$7. \quad 5 \sec \frac{\pi}{6} + \cot \frac{5\pi}{4}$$

$$\begin{aligned}
 & \text{"x"} \quad \text{"y"} \\
 & 5 \left(\frac{1}{\frac{\sqrt{3}}{2}}\right) + \left(\frac{\frac{-\sqrt{2}}{2}}{\frac{-\sqrt{2}}{2}}\right) \\
 & 5 \cdot \frac{2}{\sqrt{3}} + 1 \\
 & \frac{10}{\sqrt{3}} + 1 \\
 & \frac{10}{\sqrt{3}} + \frac{1}{1} \\
 & \frac{10}{\sqrt{3}} + \frac{\sqrt{3}}{\sqrt{3}} \\
 & \frac{10 + \sqrt{3}}{\sqrt{3}} \\
 & \frac{\sqrt{3}(10 + \sqrt{3})}{\sqrt{3} \cdot \sqrt{3}} \\
 & \frac{10\sqrt{3} + 3}{3}
 \end{aligned}$$

$$8. \quad \frac{7\pi}{6}$$

$$\sin \frac{7\pi}{6} = \text{"y"} = -\frac{1}{2}$$

$$\csc \frac{7\pi}{6} = \frac{2}{-1} = -2$$

$$\cos \frac{7\pi}{6} = \text{"x"} = -\frac{\sqrt{3}}{2}$$

$$\sec \frac{7\pi}{6} = \frac{2}{-\sqrt{3}}$$

$$\tan \frac{7\pi}{6} = \frac{\text{"y"}}{\text{"x"}} = \frac{-\frac{1}{2}}{-\frac{\sqrt{3}}{2}}$$

$$= \frac{2\sqrt{3}}{-\sqrt{3} \cdot \sqrt{3}}$$

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

$$= \frac{1}{\sqrt{3}}$$

$$\cot \frac{7\pi}{6} = \frac{\sqrt{3}}{1}$$

$$= \sqrt{3}$$

$$\begin{aligned}
 & = \frac{1 \cdot \sqrt{3}}{\sqrt{3} \cdot \sqrt{3}} \\
 & = \frac{\sqrt{3}}{3}
 \end{aligned}$$