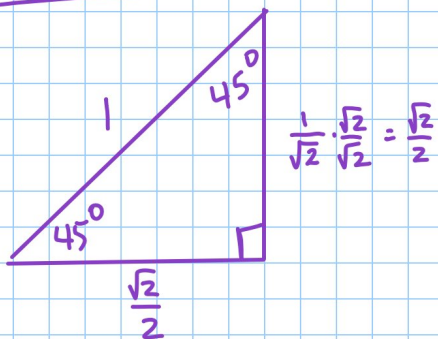


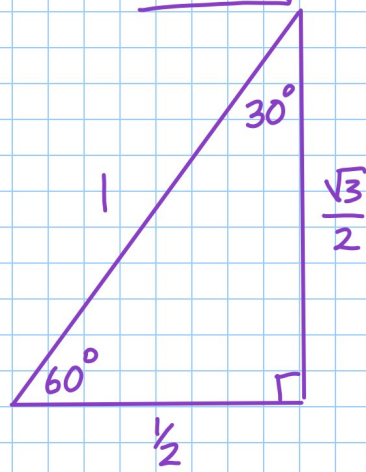
Review of 45°-45°-90°

Theorem



Review of 30°-60°-90°

Theorem



On unit circle, use these formulas to evaluate:

$$\sin \theta = y \quad \csc \theta = \frac{1}{y}$$

$$\cos \theta = x \quad \sec \theta = \frac{1}{x}$$

$$\tan \theta = \frac{y}{x} \quad \cot \theta = \frac{x}{y}$$

Find six values for $\frac{11\pi}{6}$

$$\sin \frac{11\pi}{6} = -\frac{1}{2}$$

$$\csc \frac{11\pi}{6} = -\frac{2}{1} = -2$$

$$\cos \frac{11\pi}{6} = \frac{\sqrt{3}}{2}$$

$$\sec \frac{11\pi}{6} = \frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

$$\tan \frac{11\pi}{6} = \frac{-\frac{1}{2}}{\frac{\sqrt{3}}{2}} = -\frac{1}{2} \cdot \frac{2}{\sqrt{3}} = -\frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$$

$$\cot \frac{11\pi}{6} = -\frac{3}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = -\frac{3\sqrt{3}}{3} = -\sqrt{3}$$

$$\cos(-120^\circ)$$

+360

$$\cos 240^\circ = -\frac{1}{2}$$

$$\sin\left(-\frac{3\pi}{4}\right) = \sin(-135^\circ)$$

+360

$$-\frac{3\pi}{4} \cdot \frac{180}{\pi}$$

$$\sin 225^\circ = -\frac{\sqrt{2}}{2}$$

$$\sec 750^\circ = \sec 30^\circ = \frac{1}{\frac{\sqrt{3}}{2}} = 1 \cdot \frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

$$\csc \frac{13\pi}{6} = \csc 390^\circ = \csc 30^\circ = \frac{1}{\frac{1}{2}} = 2$$

$$\frac{13\pi}{6} \cdot \frac{180}{\pi}$$

390°

$$\cot(-870^\circ) = \cot(-510^\circ) = \cot(-150^\circ) = \cot 210^\circ = \frac{-\frac{\sqrt{3}}{2}}{-\frac{1}{2}}$$

+360

+360

+360

$$= -\frac{\sqrt{3}}{2} \cdot \frac{-2}{1}$$

$$= \sqrt{3}$$