

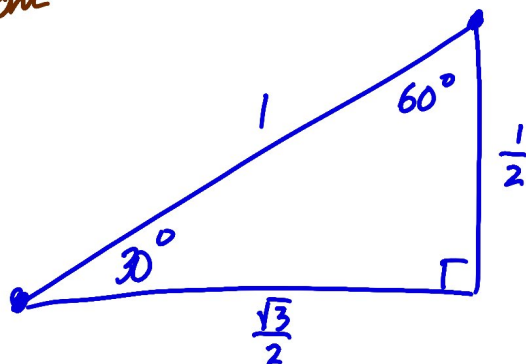
$$40) \theta = \frac{1}{4} \text{ radian}$$

$$s = r\theta$$

$$s = 6 \text{ cm}$$

$$4 \cdot 6 = r \cdot \frac{1}{4} \cdot 4$$

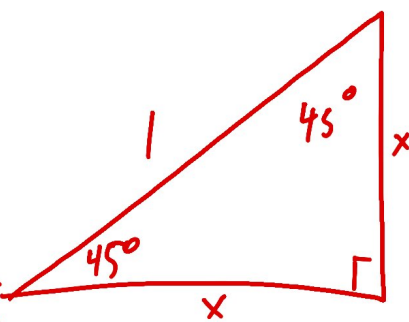
$$r = 24 \text{ cm}$$



$$2x^2 = 1$$

$$x^2 = \frac{1}{2}$$

$$x = \sqrt{\frac{1}{2}} = \frac{\sqrt{2}}{2}$$



On unit circle, $\sin \theta = y$

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

$$\cos \theta = x$$

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

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

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

Find all six trig function values of 330°

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

$x \qquad y$

$$\sin 330^\circ = -\frac{1}{2}$$

$$\cos 330^\circ = \frac{\sqrt{3}}{2}$$

$$\tan 330^\circ = \frac{-\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{-\frac{1}{2} \cdot 2}{\frac{\sqrt{3}}{2} \cdot 2} = \frac{-1}{\sqrt{3}} = -\frac{1}{\sqrt{3}}$$

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

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

$$\csc 330^\circ = -\frac{2}{1} = -2$$

$$\sec 330^\circ = \frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{2\sqrt{3}}{3}$$

$$\cot 330^\circ = -\frac{\sqrt{3}}{1} = -\sqrt{3}$$

Find all 6 trig function values of.

1) $\frac{\pi}{4}$

2) 120°

3) $\frac{3\pi}{2}$