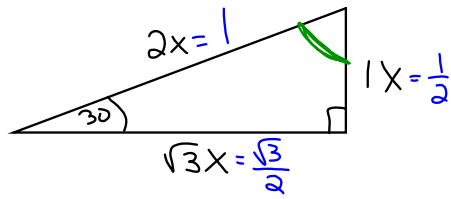
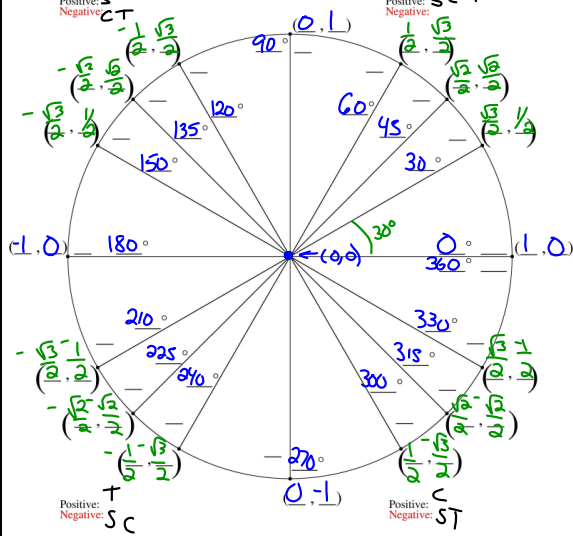


30-60-90

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



$\sin = \frac{y}{r}$ $\cos = \frac{x}{r}$ $\tan = \frac{y}{x}$



$$\sin \theta = \frac{y}{r} = y$$

$$\cos \theta = \frac{x}{r} = x$$

$$\sin 210^\circ = -\frac{1}{2}$$

$$\cos 135^\circ = -\frac{\sqrt{2}}{2}$$

$$\begin{aligned}\tan 330^\circ &= \frac{y}{x} = \frac{-1/2}{\sqrt{3}/2} = -\frac{\sqrt{3}}{3} \\ &= -\frac{1}{2} \cdot \frac{2}{\sqrt{3}} = \frac{-2}{\sqrt{3}} = -\frac{1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}\end{aligned}$$

$$\sec 120^\circ = \frac{1}{x} = \frac{1}{-1/2} = -2$$