Positive Trig Ratios:

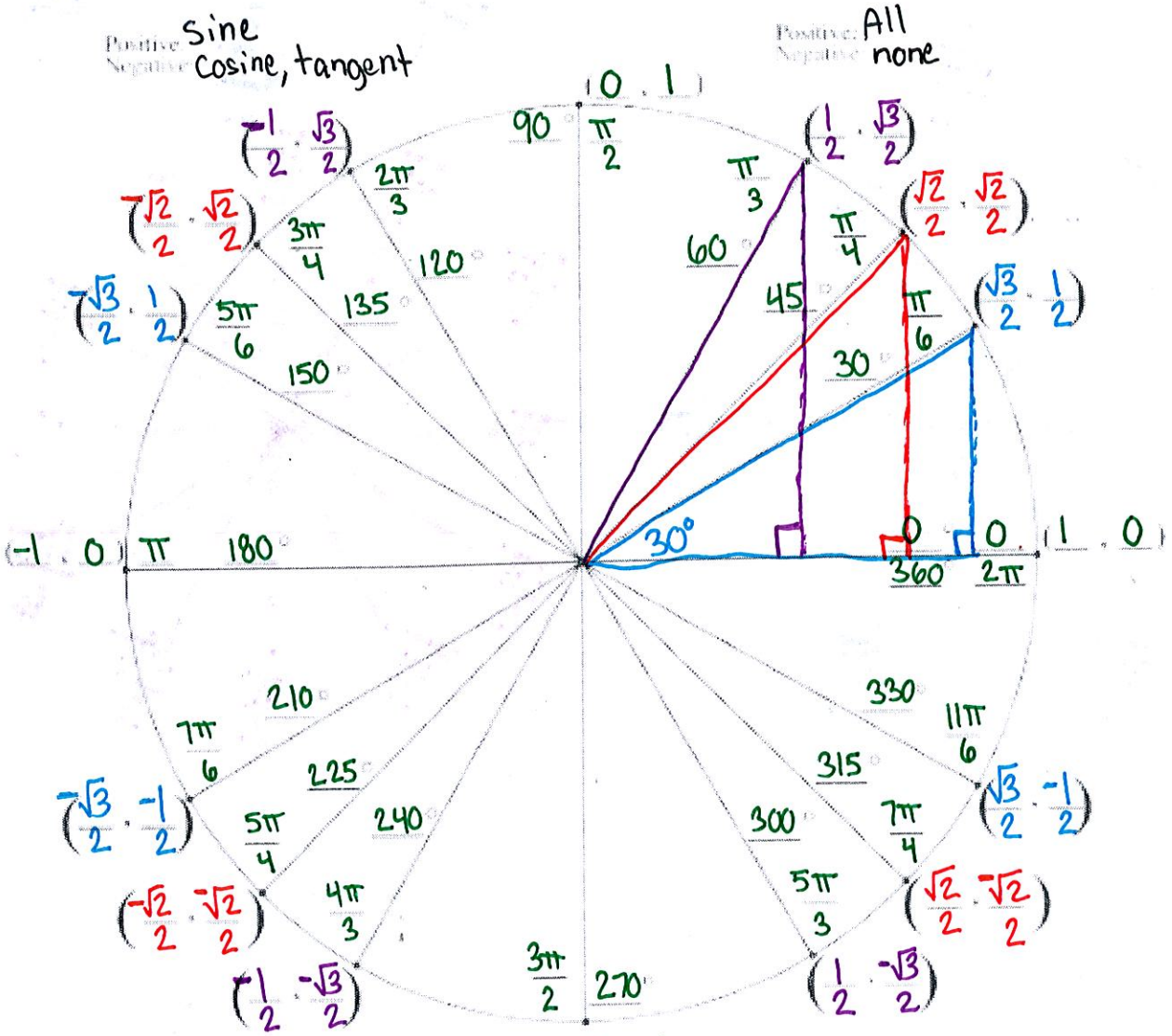
Students	All
Take	Calculus

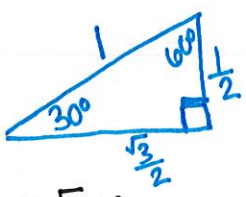
(x, y)

$(\cos\theta, \sin\theta)$

$\tan\theta = \frac{\sin\theta}{\cos\theta}$

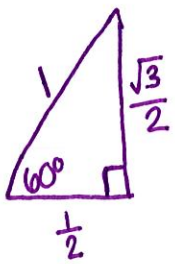
Fill in The Unit Circle

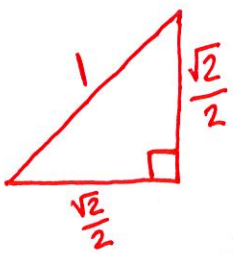




$1 : \sqrt{3} : 2$

$\frac{1}{2} : \frac{\sqrt{3}}{2} : 1$





$1 : 1 : \sqrt{2}$

$\frac{\sqrt{2}}{2} : \frac{\sqrt{2}}{2} : 1$

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

$\sin 30° = \frac{\frac{1}{2}}{1} = \frac{1}{2}$ $\quad \cos 30° = \frac{\frac{\sqrt{3}}{2}}{1} = \frac{\sqrt{3}}{2}$

$\sin 60° = \frac{\frac{\sqrt{3}}{2}}{1} = \frac{\sqrt{3}}{2}$ $\quad \cos 60° = \frac{\frac{1}{2}}{1} = \frac{1}{2}$

$\tan 30° = \frac{\frac{1}{2}}{\frac{\sqrt{3}}{2}} = \frac{1}{2} \cdot \frac{2}{\sqrt{3}} = \frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$