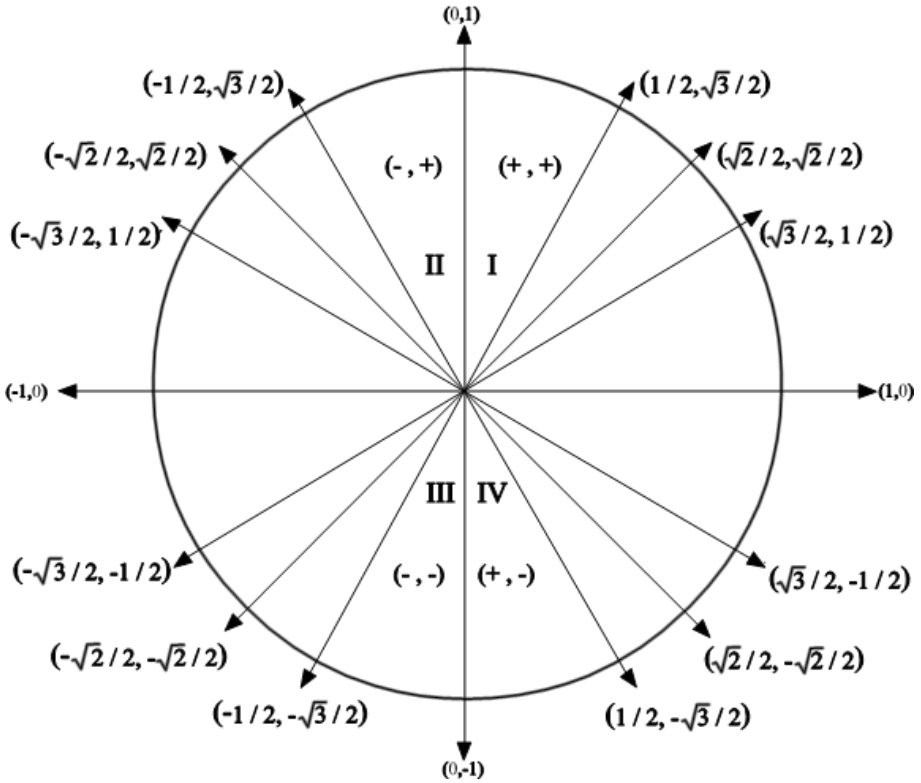
Section 6.2 Trigonometric Functions Day #1

Find the coordinates associated with familiar angles on the unit circle

Find values of 6 trig functions using the unit circle and familiar angles

(Unit Circle ppt first)

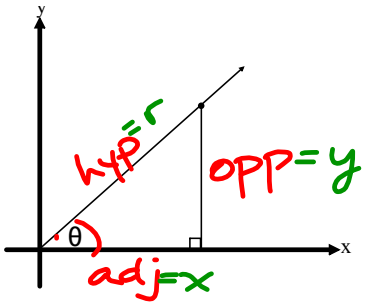


Brainstorm ideas.....

$\# \frac{\pi}{3} \quad \left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$

$\frac{\pi}{6} \quad \left(\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$

$\frac{\pi}{4} \quad \left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$



Trig Definitions

$\boxed{\text{trig word}}\ \boxed{\text{*}} = \boxed{\text{ratio}}$

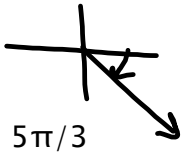
	Geom	Trig	Unit 0		Geom	Trig	Unit 0
sin θ = (sine)	$\frac{opp}{hyp}$	$= \frac{y}{r}$	$= y$	csc θ = (cosecant)		$\frac{r}{y}$	$= \frac{1}{y}$
cos θ = (cosine)	$\frac{adj}{hyp}$	$= \frac{x}{r}$	$= x$	sec θ = (secant)		$\frac{r}{x}$	$= \frac{1}{x}$
tan θ = (tangent)	$\frac{opp}{adj}$	$= \frac{y}{x}$	$= \frac{y}{x}$	cot θ = (cotangent)		$\frac{x}{y}$	$= \frac{x}{y}$

Find the coordinates on the unit circle that correspond with the following angles.

a. $2\pi/3$  $\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$

b. $5\pi/4$  $\left(-\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$

c. $5\pi/6$  $\left(-\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$

d. $-\pi/4$  $\left(\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$

e. $5\pi/3$

f. $\pi/2$ $(0, 1)$

g. $11\pi/6$

h. $3\pi/2$

i. $-\pi/3$

j. $7\pi/4$

k. -5π  $(-1, 0)$