

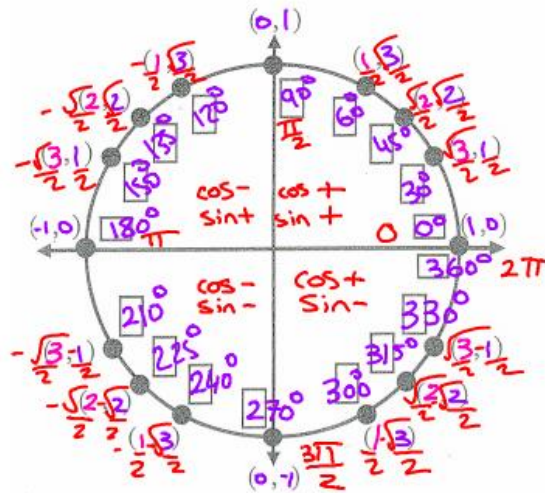
Thursday 01/11

• If $\sin \theta = \frac{3}{5}$ find $\csc \theta$

Sin and csc are

reciprocal $\csc \theta = \frac{1}{\sin \theta} = \frac{5}{3}$

p364



(x, y)
(cos, sin)

- 30° 45° 60° add 30, 45, 60 from each corner point.
- 3, 2, 1 pattern + $\sqrt{}$ + $\frac{1}{2}$
- Degree $\rightarrow$ radian $\cdot \frac{\pi}{180}$
 $\therefore 15^\circ \cdot \frac{\pi}{180} = \frac{5\pi}{6}$

30°
 45°
 60°

$\frac{\pi}{6}$

$\frac{\pi}{4}$

$\frac{\pi}{3}$

		x	y	
	rad	cos	sin	tan
0				
60°	$\frac{\pi}{3}$	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{3}}{2}$
150°	$\frac{5\pi}{6}$	$-\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	$-\frac{1}{\sqrt{3}}$

$\frac{\sin}{\cos} \rightarrow \frac{y}{x}$

Rationalize the D if needed

KCF

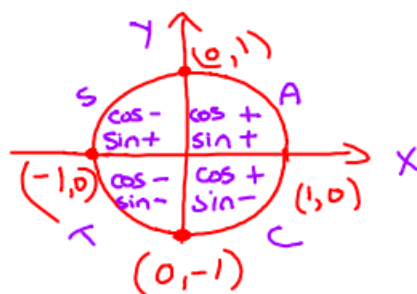
$$= \frac{\sqrt{3}}{2} \cdot \frac{2}{1} = \sqrt{3}$$

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

Unit Circle

$r=1$

sin cos tan



cos $\rightarrow$ x-axis

sin $\rightarrow$ y-axis

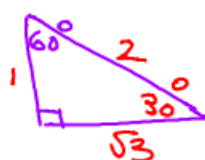
$$-1 \leq \cos \theta \leq 1$$

$$-1 \leq \sin \theta \leq 1$$

sign +

Special

Δ



$$\cos 60^\circ = \frac{1}{2}$$