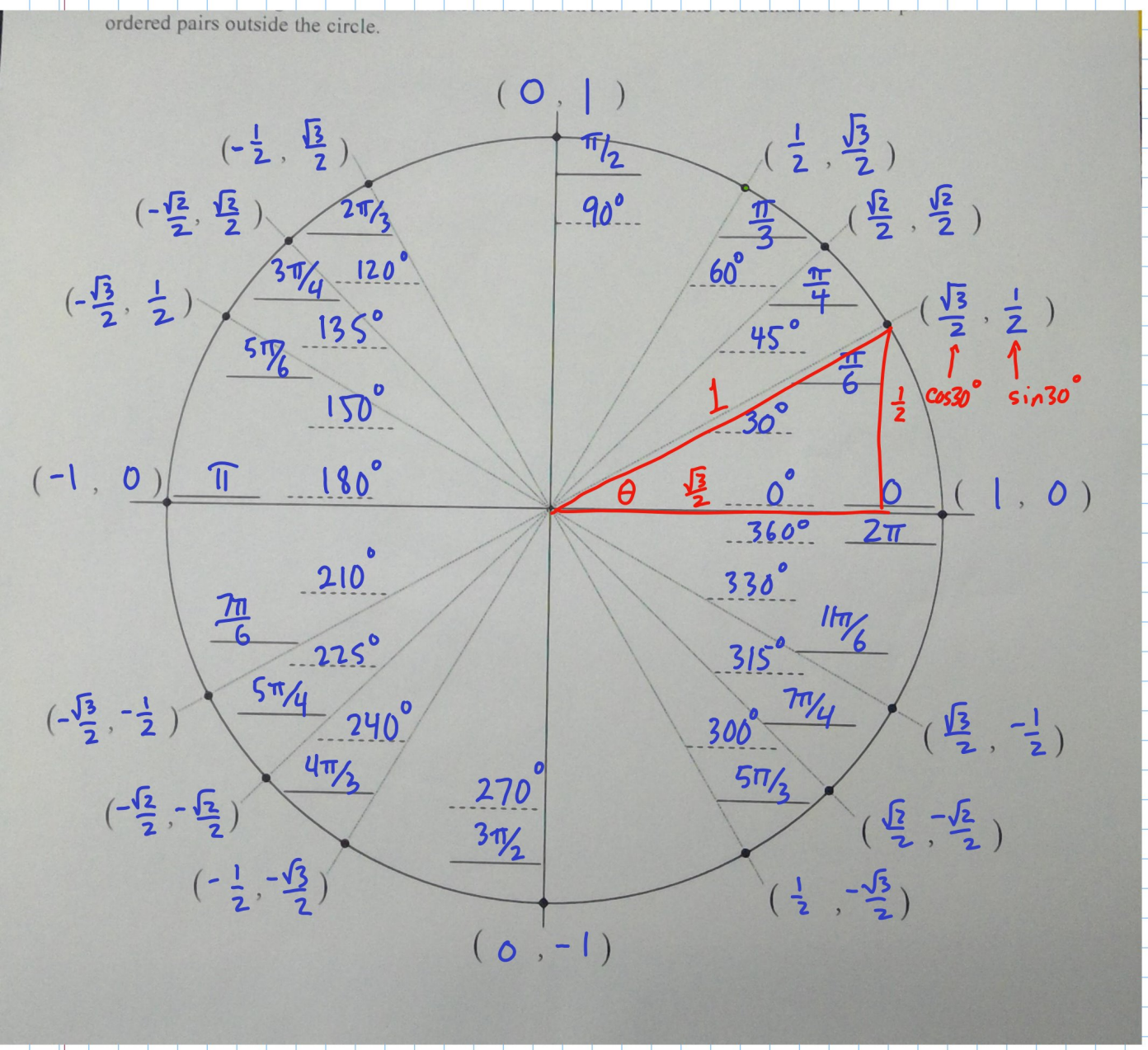
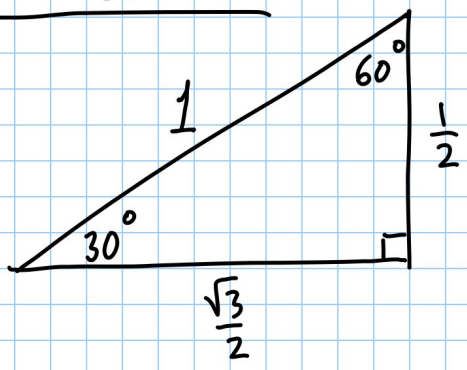
ordered pairs outside the circle.



CHO
SHA
CAO

30°-60°-90°

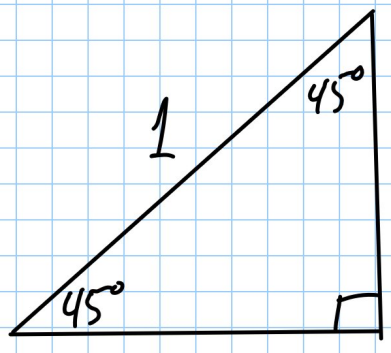


short = $\frac{1}{2}$ · hyp

long = $\sqrt{3}$ · short

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

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



$a^2 + a^2 = 1^2$

$2a^2 = 1$

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

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

UO, OSU, etc.

251, 252, 253
5 5 5

15 quarter credits

Semester
Calc 1, Calc 2
3.

$\frac{2}{3}$ of a full year

CN Calc

On Unit Circle:

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

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

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

$$\tan\frac{5\pi}{6} = \frac{\frac{1}{2}}{-\frac{\sqrt{3}}{2}}$$

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

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

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

$$\csc 240^\circ = \frac{1}{-\frac{\sqrt{3}}{2}} = -\frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$$

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

$\tan\frac{3\pi}{2}$ = undefined

$\sec\pi = -1$