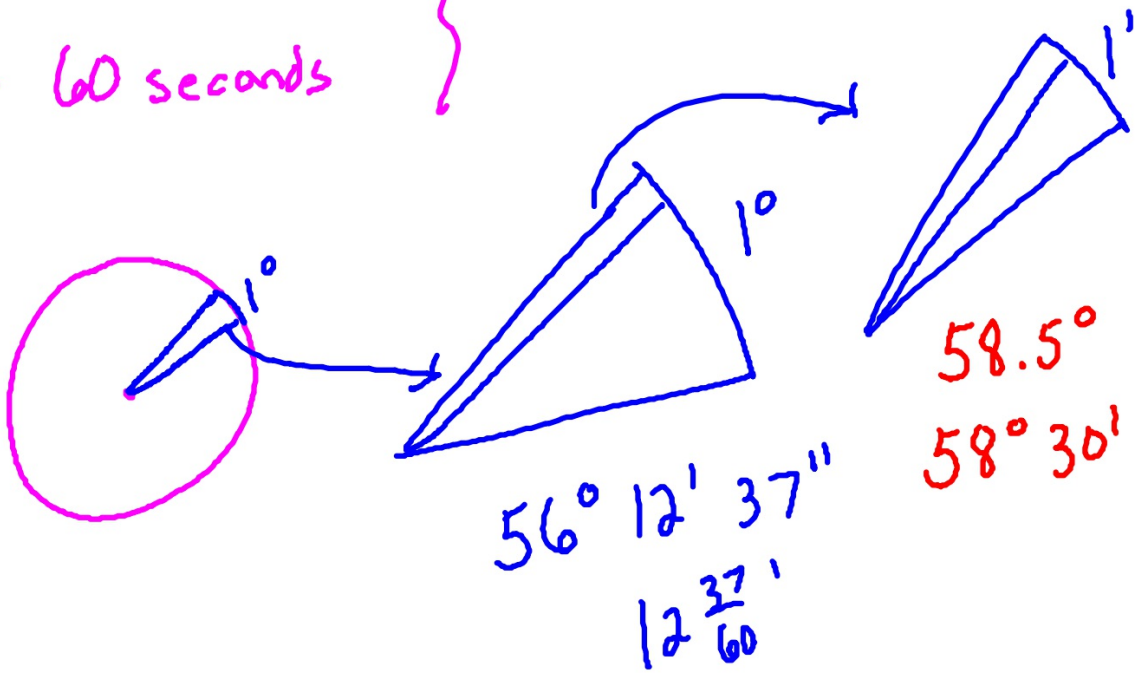
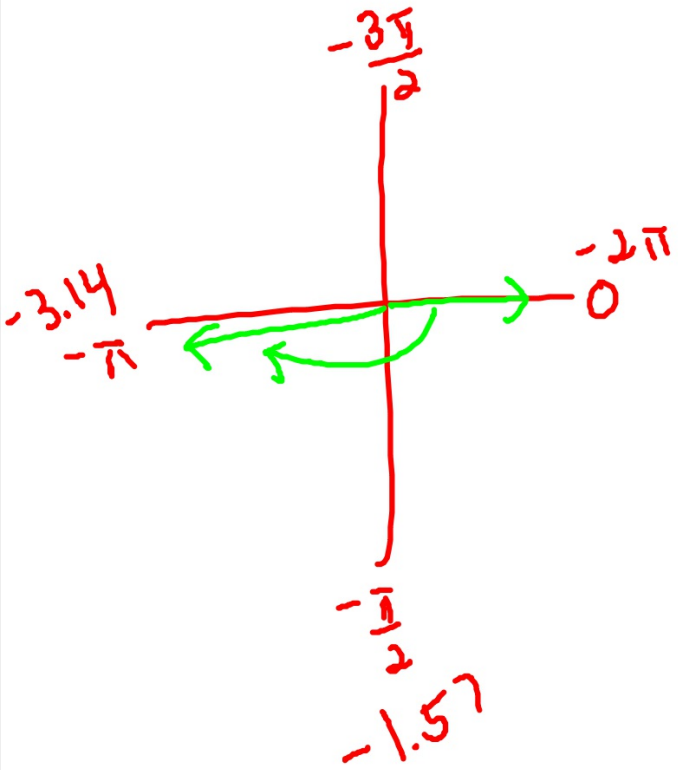
DMS: Degree/Minutes/Seconds

$1^\circ = 60$ minutes

$1' = 60$ seconds

DMS = ° ' "




$-\frac{3\pi}{2}$
-2π
-3.14
$-\pi$
0
$-\frac{\pi}{2}$
-1.57

$$S = r \cdot \theta$$

$$S = 15 \cdot \pi$$

$$\cancel{180^\circ} \cdot \frac{\pi}{\cancel{180}}$$

4.2) Trigonometry $S\frac{o}{h}C\frac{a}{h}T\frac{o}{a}$

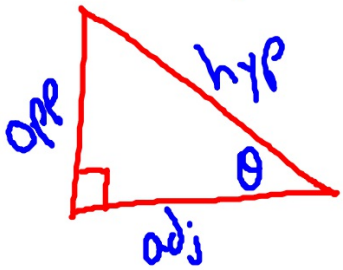
6 trig. Functions (SohCahToa)

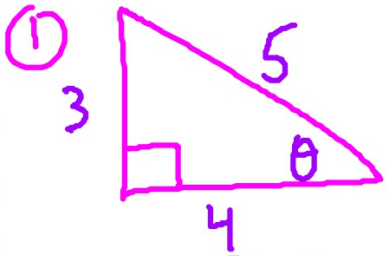
3-4-5
6-8-10
5-12-13

$\sin\theta = \frac{opp}{hyp}$ $\quad$ $\csc\theta = \frac{hyp}{opp}$

$\cos\theta = \frac{adj.}{hyp}$ $\quad$ $\sec\theta = \frac{hyp}{adj}$

$\tan\theta = \frac{opp}{adj}$ $\quad$ $\cot\theta = \frac{adj}{opp}$



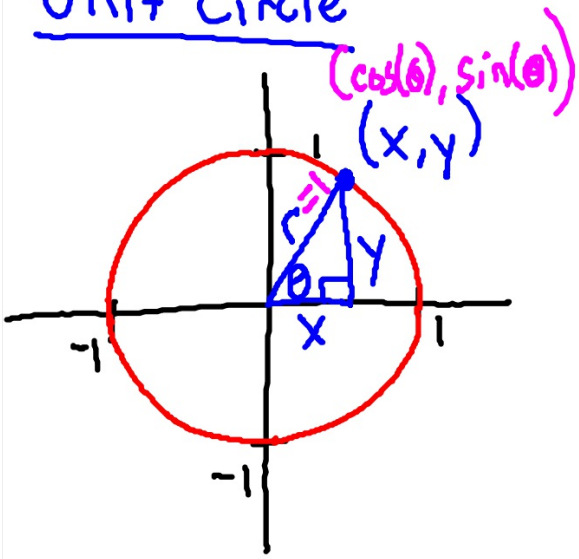
① 

$\sin\theta = \frac{3}{5}$ $\quad$ $\csc\theta = \frac{5}{3}$

$\cos\theta = \frac{4}{5}$ $\quad$ $\sec\theta = 5/4$

$\tan\theta = \frac{3}{4}$ $\quad$ $\cot\theta = 4/3$

Unit Circle



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

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

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

$$\boxed{\sin\theta = y}$$

$$\boxed{\cos\theta = x}$$

$$\boxed{\tan\theta = \frac{y}{x}}$$

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

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

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

$$* \quad \boxed{\tan\theta = \frac{\sin\theta}{\cos\theta}}$$

pg 249 #1-31 odd

(1) $\sin\theta = \frac{15}{17}$

$\cos\theta = -8/17$

$\tan\theta = -\frac{15}{8}$

$\csc\theta = \frac{17}{15}$

$\sec\theta = -17/8$

$\cot\theta = -8/15$

$\frac{\frac{15}{17}}{\frac{-8}{17}}$ $\frac{17}{-8}$

(13) $\sin \pi/4 = \sqrt{2}/2$

$\cos \pi/4 = \sqrt{2}/2$

$\tan \pi/4 = 1$

(15) $\sin -\pi/6 = -\frac{1}{2}$

$\cos -\pi/6 = \sqrt{3}/2$

$\tan -\pi/6 = -\frac{\sqrt{3}}{3}$

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

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