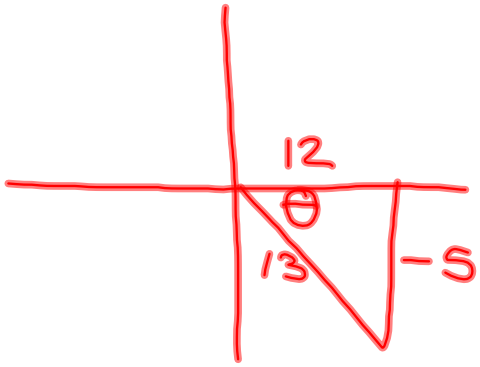
Review:

1. Given that $\tan\theta = -\frac{5}{12}$, $\theta \in Q\ IV$, find the other 5 trigonometric function values of θ.



$\sin\theta = -5/13$

$\cos\theta = 12/13$

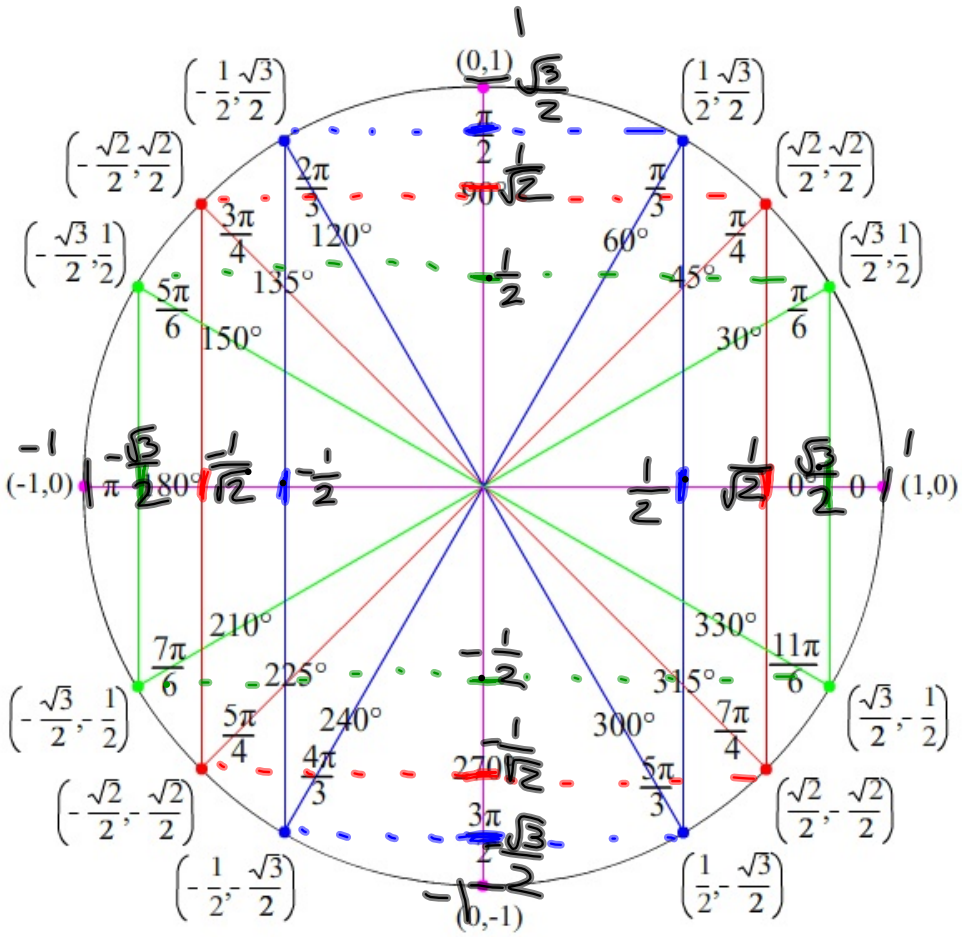
$\sec\theta = 13/12$

$\csc\theta = -13/5$

$\cot\theta = -12/5$

2. Convert $\frac{7\pi}{4}$ to degrees. $\frac{7\pi}{4} \cdot \frac{180^\circ}{\pi} = 315^\circ$ (45°)

3. Convert 240° to radians. $\frac{\pi}{180^\circ} = \frac{4\pi}{3}$


(0,1)
$\left(\frac{1}{2},\frac{\sqrt{3}}{2}\right)$
$\left(\frac{\sqrt{2}}{2},\frac{\sqrt{2}}{2}\right)$
$\left(\frac{\sqrt{3}}{2},\frac{1}{2}\right)$
(1,0)
$\left(\frac{\sqrt{3}}{2},-\frac{1}{2}\right)$
$\left(\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2}\right)$
$\left(\frac{1}{2},-\frac{\sqrt{3}}{2}\right)$
(0,-1)
$\left(-\frac{1}{2},-\frac{\sqrt{3}}{2}\right)$
$\left(-\frac{\sqrt{2}}{2},-\frac{\sqrt{2}}{2}\right)$
$\left(-\frac{\sqrt{3}}{2},-\frac{1}{2}\right)$
(-1,0)
$\left(-\frac{\sqrt{3}}{2},\frac{1}{2}\right)$
$\left(-\frac{\sqrt{2}}{2},\frac{\sqrt{2}}{2}\right)$
$\left(-\frac{1}{2},\frac{\sqrt{3}}{2}\right)$
$\frac{\pi}{2}$ 90°
$\frac{\pi}{3}$ 60°
$\frac{\pi}{4}$ 45°
$\frac{\pi}{6}$ 30°
0° 0
$\frac{2\pi}{3}$ 120°
$\frac{3\pi}{4}$ 135°
$\frac{5\pi}{6}$ 150°
π 180°
$\frac{7\pi}{6}$ 210°
$\frac{5\pi}{4}$ 225°
$\frac{4\pi}{3}$ 240°
$\frac{3\pi}{2}$ 270°
$\frac{5\pi}{3}$ 300°
$\frac{7\pi}{4}$ 315°
$\frac{11\pi}{6}$ 330°
1
$\frac{\sqrt{3}}{2}$
$\frac{1}{\sqrt{2}}$
$\frac{1}{2}$
0
$-\frac{1}{2}$
$-\frac{1}{\sqrt{2}}$
$-\frac{\sqrt{3}}{2}$
-1

$\frac{k\pi}{6}$ - 30° ref ∠'s

$\frac{k\pi}{4}$ - 45° ref ∠'s

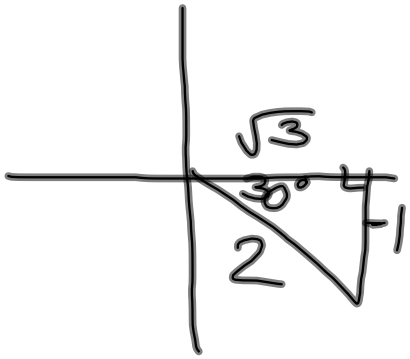
$\frac{k\pi}{3}$ - 60° ref ∠'s

$\frac{k\pi}{2}$ - 90° or 270°

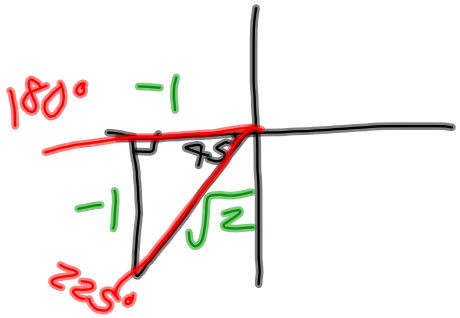
$k\pi$ - k even 0°

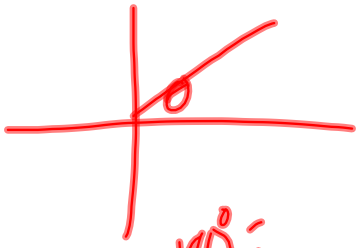
- k odd 180°

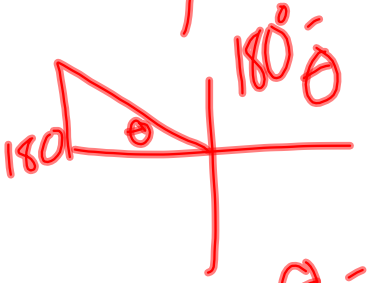
$$\cos\frac{11\pi}{6} = \boxed{\frac{\sqrt{3}}{2}}$$

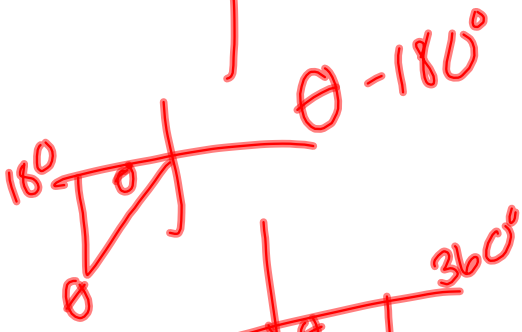


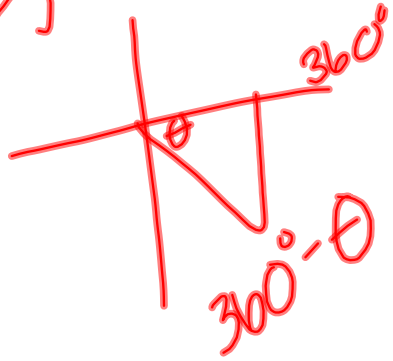
$$\csc 225^\circ = \boxed{-\sqrt{2}}$$





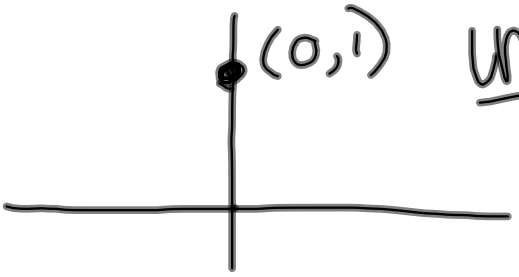






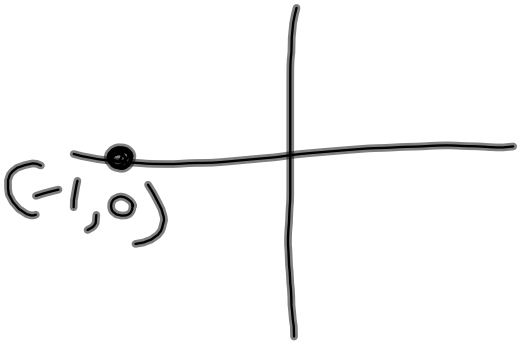
$\tan -\frac{7\pi}{2} = \frac{\sin(-\frac{7\pi}{2})}{\cos(-\frac{7\pi}{2})} = \frac{1}{0}$

$-\frac{7\pi}{2} + \frac{4\pi}{2} = -\frac{3\pi}{2} + \frac{\pi}{2} = \frac{\pi}{2}$

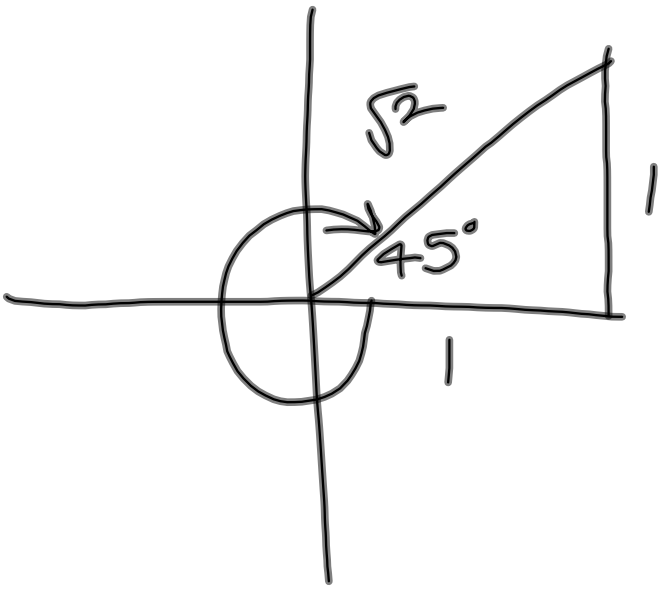


undefined

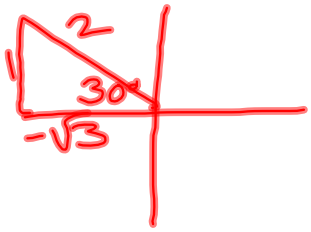
$\sin 329\pi = \boxed{0}$



$\sec(-315°) = \boxed{\sqrt{2}}$



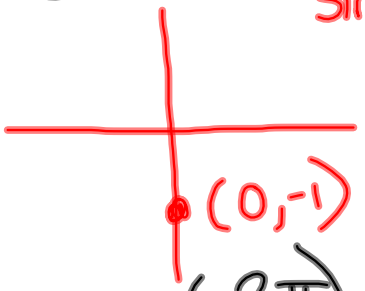
$\sin \frac{5\pi}{6} = \frac{1}{2}$



$\cos(-120°) = -\frac{1}{2}$

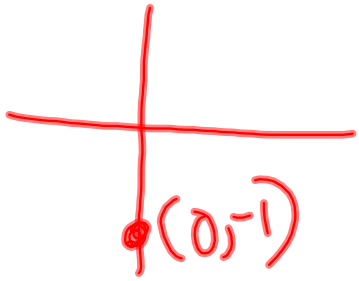
$\tan\left(\frac{3\pi}{4}\right) = -1$

$\csc 270° = \frac{1}{\sin 270°} = \frac{1}{-1} = -1$



$\sec\left(-\frac{2\pi}{3}\right) = -2$

$\cot 630° = \frac{\cos 630°}{\sin 630°} = \frac{0}{-1} = 0$



5.3 # 39-70 degrees

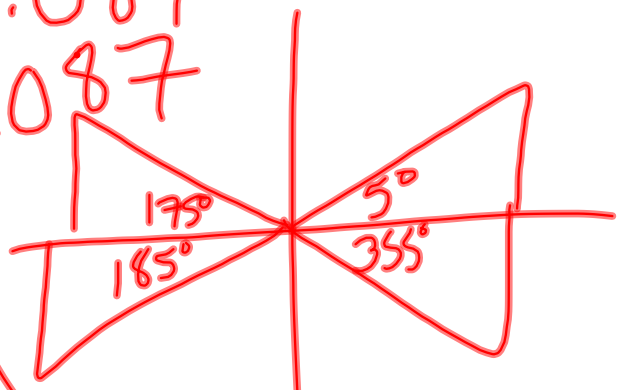
5.5 # 7-24 radians

$\sin 5^\circ = 0.087$

$\sin 175^\circ = 0.087$

$\sin 185^\circ = -0.087$

$\sin 355^\circ = -0.087$

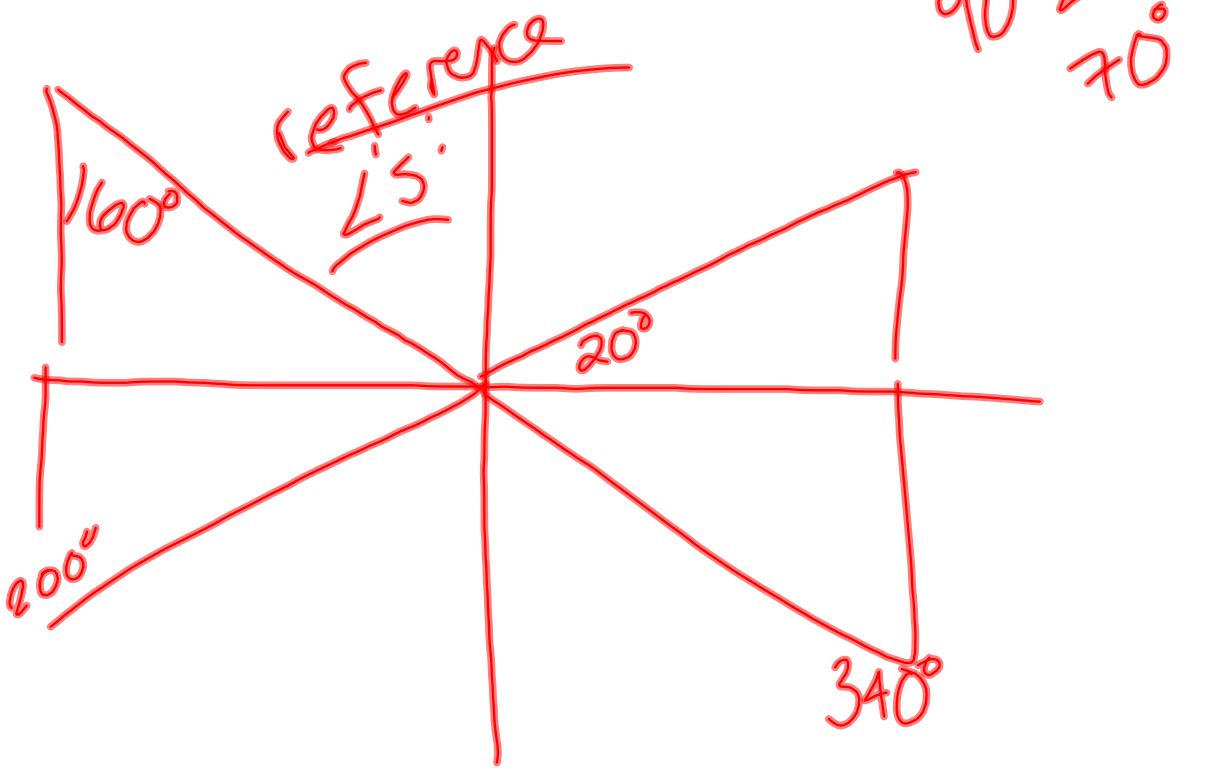


$\cos 85^\circ$

$= \sin(90^\circ - 85^\circ) = \sin 5^\circ = 0.087$

$\sin 20^\circ$; $\cos 20^\circ$

cofunctions:
$90^\circ - 20^\circ =$
70°



complement in degrees:

$90° - \theta$

in radians:

$\frac{\pi}{2} - \theta$

supplement in degrees:

$180° - \theta$

in radians:

$\pi - \theta$

Find complement & supplement of $\frac{\pi}{5}$.

comp: $\frac{5}{5}\frac{\pi}{2} - \frac{\pi}{5}\cdot\frac{2}{2} = \frac{3\pi}{10}$

supp: $\frac{5}{5}\pi - \frac{\pi}{5} = \frac{4\pi}{5}$

Test next Tues.
Quiz tomorrow!