

10/19/2018

ex:  $\cos \frac{\pi}{2} - \csc \left( \frac{-\pi}{2} \right)$

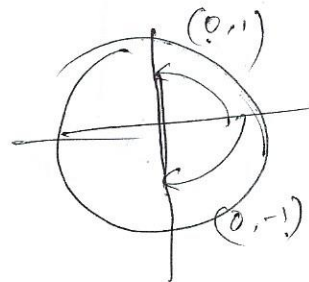
find exact value

$\cos \frac{\pi}{2} = 0$

$\csc = \frac{1}{\sin \frac{\pi}{2}} = \frac{1}{1} = 1$

$0 - (-1) = 1$

~~0-1~~



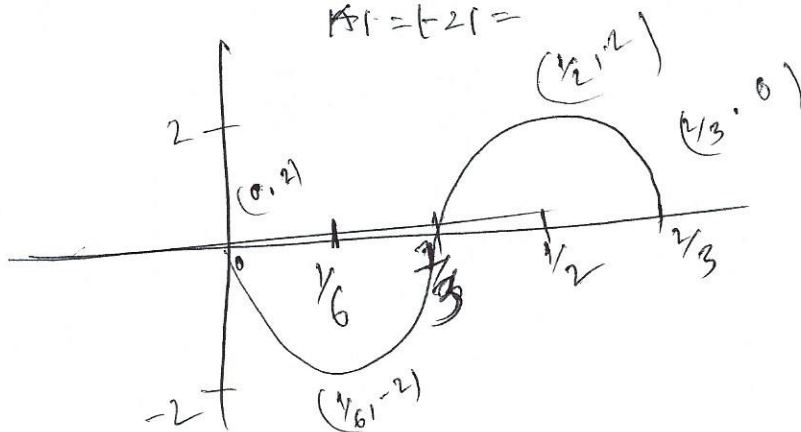
~~0-1~~

$\cos \frac{\pi}{2} + \csc \frac{\pi}{2}$

$0 + \frac{1}{1} = 1$

$y = 4 \cos(2x) - 2 \sin(3\pi x)$

$\pi = 2\pi =$



$T = \frac{2\pi}{\omega}$

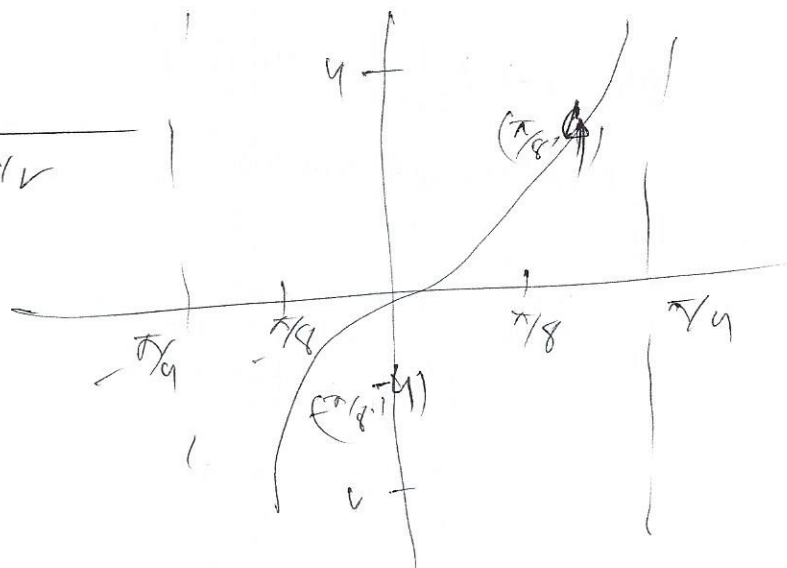
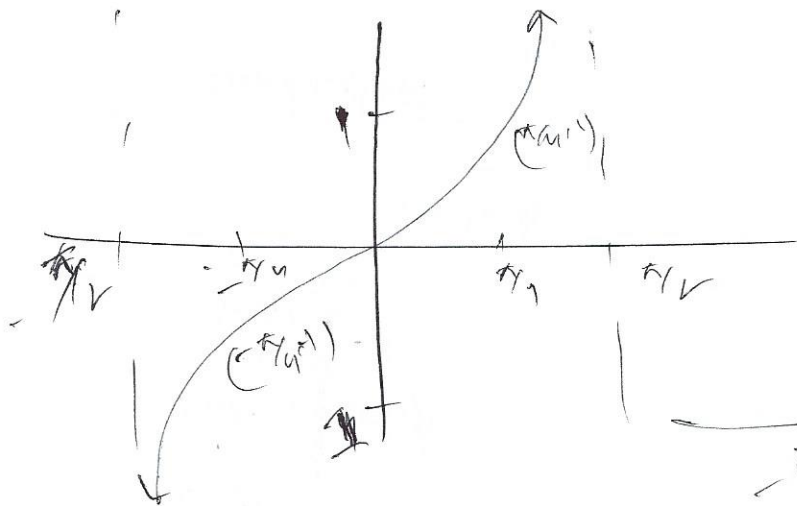
$T = \frac{2\pi}{3\pi} = \frac{2}{3}$

$$y = 4 \tan(2x)$$

$$|A| = 4$$

$$T = \frac{\pi}{\omega}$$

$$T = \frac{\pi}{2}$$



$$\cos \theta = -3/5$$

$$\pi < \theta < \frac{3\pi}{2}$$

$$\cos \theta = \left(-\frac{3}{5}\right)^2 + \sin^2 \theta = 1$$

$$\sin^2 \theta = 1 - \frac{9}{25}$$

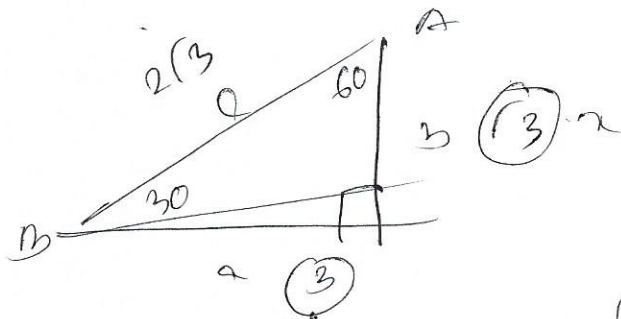
$$= \frac{16}{25} = \frac{4}{5}$$

$$\tan \theta = \frac{-4/5}{-3/5} = \frac{4}{3}$$

$$\sec \theta = \frac{1}{\cos} = -5/3$$

$$\csc \theta = \frac{1}{\sin} = -5/4$$

$$\cot \theta = \frac{1}{\tan} = 3/4$$



$$2 = 30$$

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$$\tan A = \frac{a}{b} = \frac{\sqrt{3}r}{3} = \sqrt{3} = \tan 60^\circ$$

$$\sqrt{3}r + 3r = a$$

$$3 + 9 = a$$

$$a^2 = 12$$

$$a = \sqrt{12} = 2\sqrt{3}$$

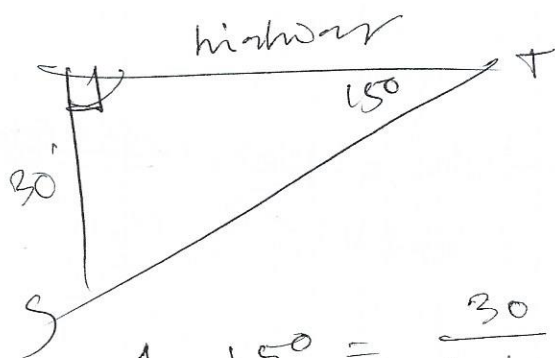
ex: find two negative, positive angles ( ~~$(-\frac{\pi}{2}, \frac{\pi}{2})$~~ )  
in radians for the point  $(-\frac{1}{2}, \frac{\sqrt{3}}{2})$ .

$$\frac{\sin}{\cos} T = \frac{2\pi}{\omega}$$

$$\frac{\tan}{\cot} T = \frac{\pi}{\omega}$$

ex: State more 30' from the highway one sec after truck passes the angle  $\theta$  between highway & line of the observation is measured.

(a)  $\theta = 15^\circ$ , how far truck traveling?



$$\tan 15^\circ = \frac{30}{d}$$

$$d = \frac{30}{\tan 15^\circ}$$