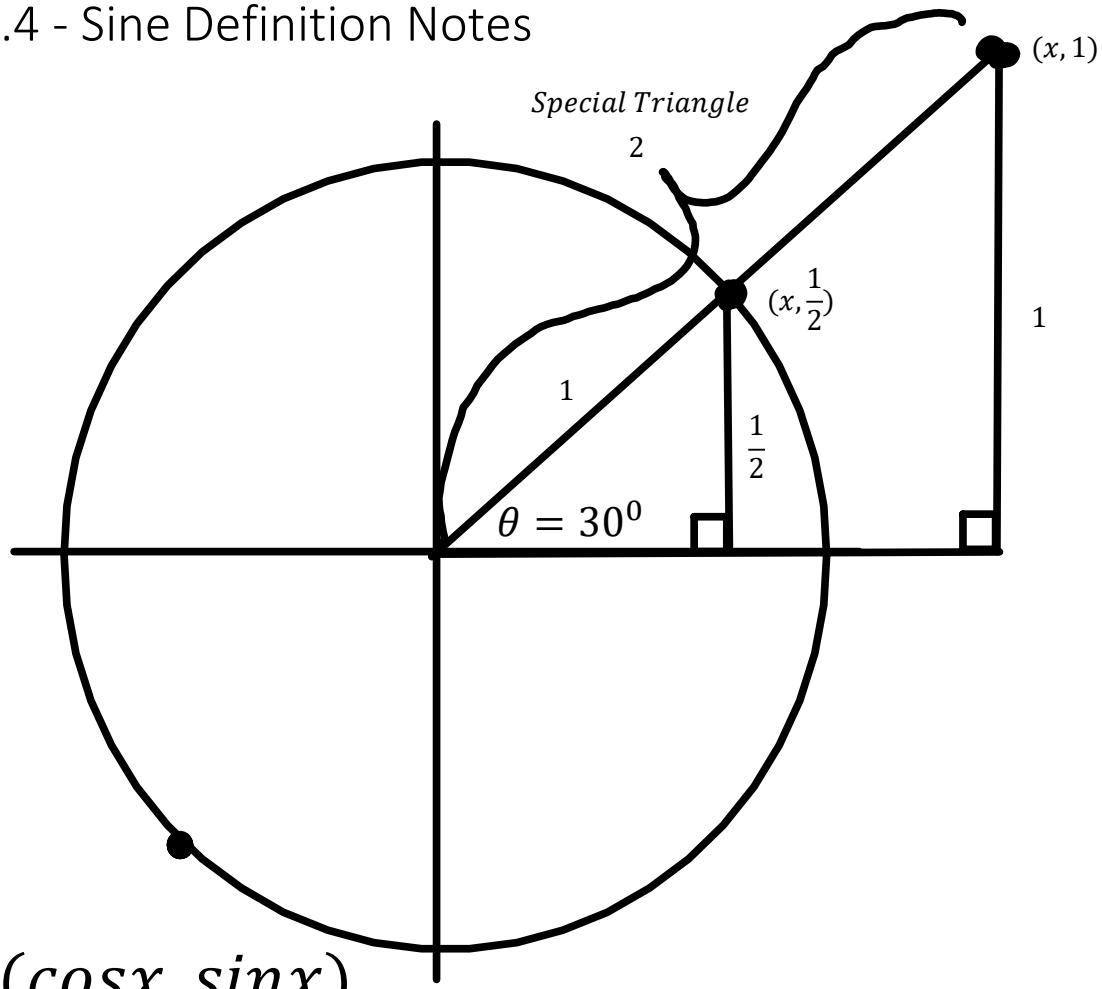
C12 - 4.4 - Sine Definition Notes



$(cosx, sinx)$

$sin\theta = \frac{O}{H}$

$sin\theta = \frac{1}{2}$

$sin\theta = \frac{O}{H}$

$sin\theta = \frac{\frac{1}{2}}{1}$

$sin\theta = \frac{1}{2}$

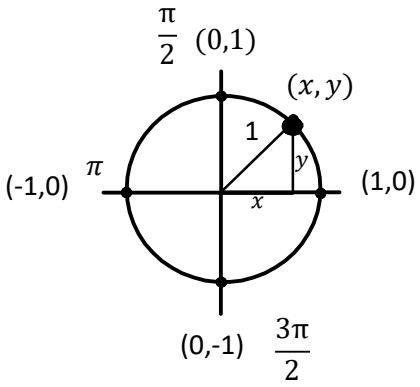
(x, y)

$(cosx, sinx)$

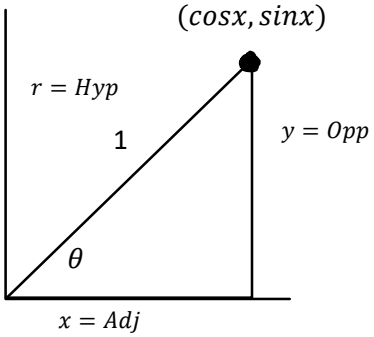
$tanx = m$

$sin\theta = y$

C11 - 4.4 - Unit Circle Quadrantal Angle Notes



$0, 2\pi$



$Radius\ of\ unit\ circle = 1$

$Hyp = 1$

$sin\theta = \frac{Opp}{Hyp}$

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

$\boxed{sin\theta = y}$

$cos\theta = \frac{Adj}{Hyp}$

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

$\boxed{cos\theta = x}$

$tan\theta = \frac{Opp}{Adj}$

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

$sin0 = \frac{0}{1}$

$sin0 = 0$

$sin(\frac{3\pi}{2}) = \frac{-1}{1}$

$sin(\frac{3\pi}{2}) = -1$

$cos\left(\frac{3\pi}{2}\right) = \frac{0}{1}$

$cos(\frac{3\pi}{2}) = 0$

$cos2\pi = \frac{1}{1}$

$cos2\pi = 1$

$tan0 = \frac{0}{1}$

$tan0 = 0$

$\tan(\frac{3\pi}{2}) = \frac{-1}{0}$

$tan(\frac{3\pi}{2}) = UND$

$csc\theta = \frac{Hyp}{Opp}$

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

$csc\theta = \frac{1}{0}$

$csc0 = und$

$\boxed{csc\theta = \frac{1}{sin\theta}}$

$csc0 = \frac{1}{sin0}$

$csc0 = \frac{1}{0}$

$csc\theta = und$

$sec\theta = \frac{Hyp}{Adj}$

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

$\boxed{sec\theta = \frac{1}{cos\theta}}$

$\sec\left(\frac{\pi}{2}\right) = \frac{1}{\cos\left(\frac{\pi}{2}\right)}$

$\sec\left(\frac{\pi}{2}\right) = \frac{1}{0}$

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

$cot\theta = \frac{Adj}{Opp}$

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

$cot0 = \frac{0}{1}$

$cot0 = 0$