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Lesson 5.3: Trigonometric Graphs- Sine & Cosine Curves

Table of Values for Sine & Cosine Functions

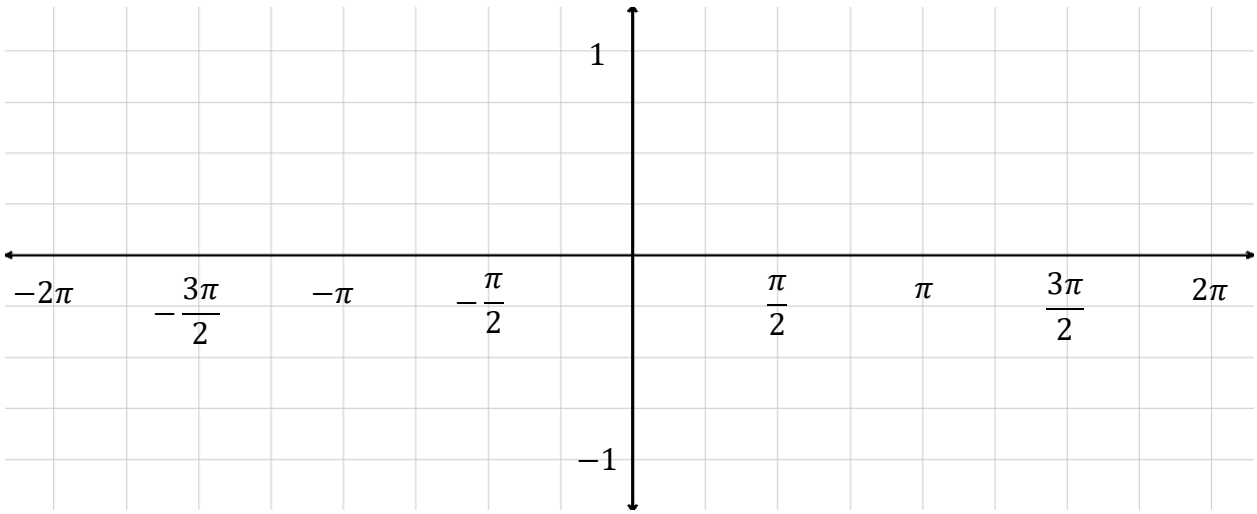
$$\boldsymbol{y = \sin(\theta)}$$

$\boldsymbol{\theta}$	0				$\frac{\pi}{2}$				π				$\frac{3\pi}{2}$				2π
$\boldsymbol{\sin(\theta)}$																	
$\approx$																	

$$\boldsymbol{y = \cos(\theta)}$$

$\boldsymbol{\theta}$	0				$\frac{\pi}{2}$				π				$\frac{3\pi}{2}$				2π
$\boldsymbol{\cos(\theta)}$																	
$\approx$																	

Graph the trig functions above on the set of axes below:

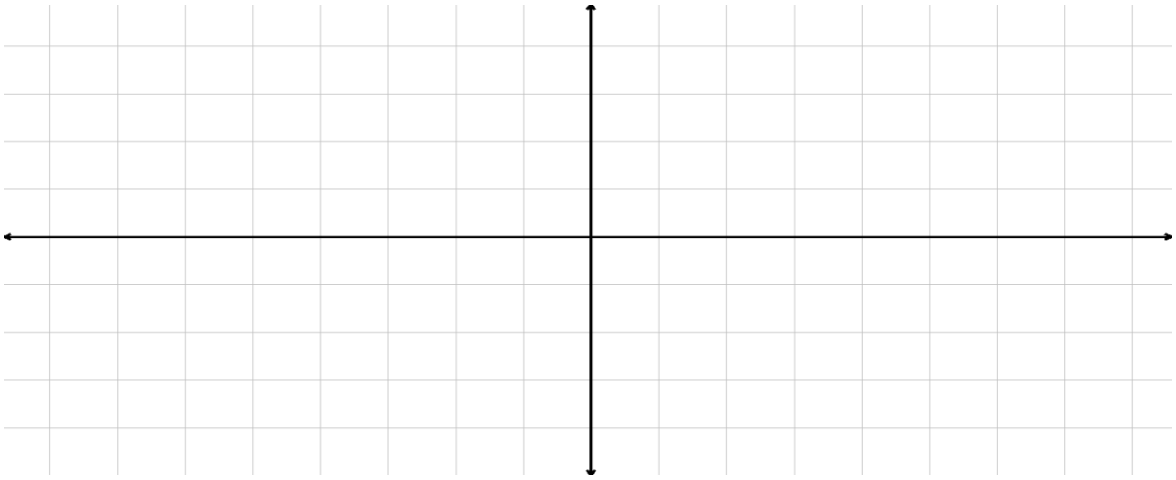


Transformations of Trigonometric Functions

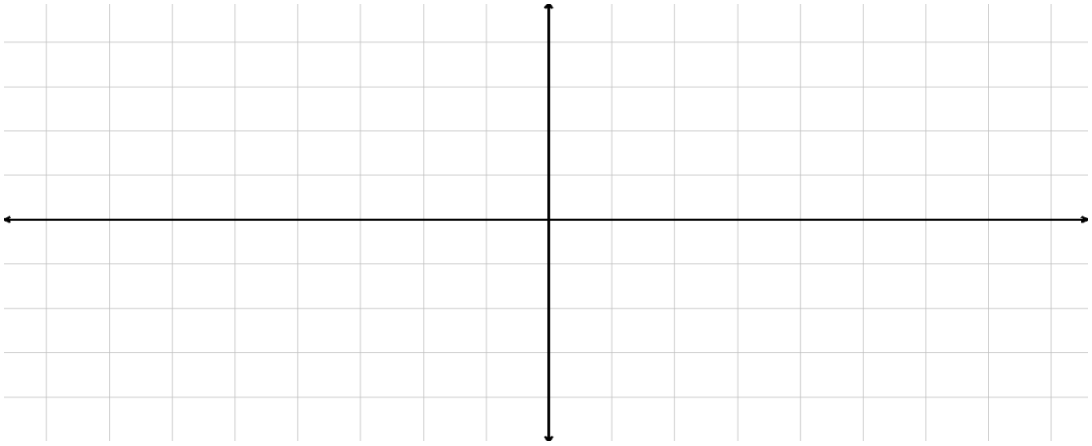
Name	Definition	Variable	Graphical Shift
Amplitude			
Frequency			
Period			
Phase Shift (Horizontal Shift)			
Vertical Shift			

Examples: Graph two periods of the following functions on the given axes. Be sure to **scale your graph**!

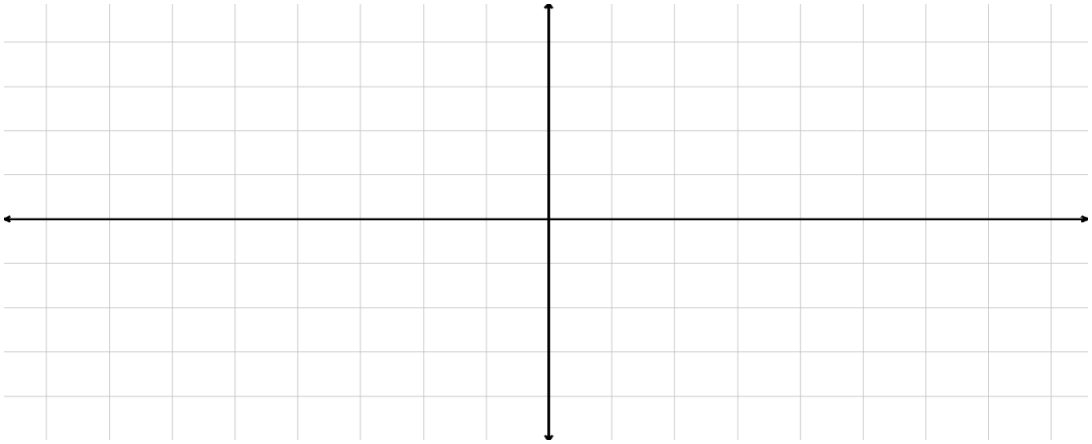
1. $y = \frac{1}{2}\sin\left(x - \frac{\pi}{2}\right) + 1$



2. $y = 3\cos(2x)$



3. $y = -5\sin\left(\frac{1}{2}\left(x + \frac{\pi}{4}\right)\right)$



4. $y = \frac{1}{4}\cos(3x) - \frac{1}{2}$