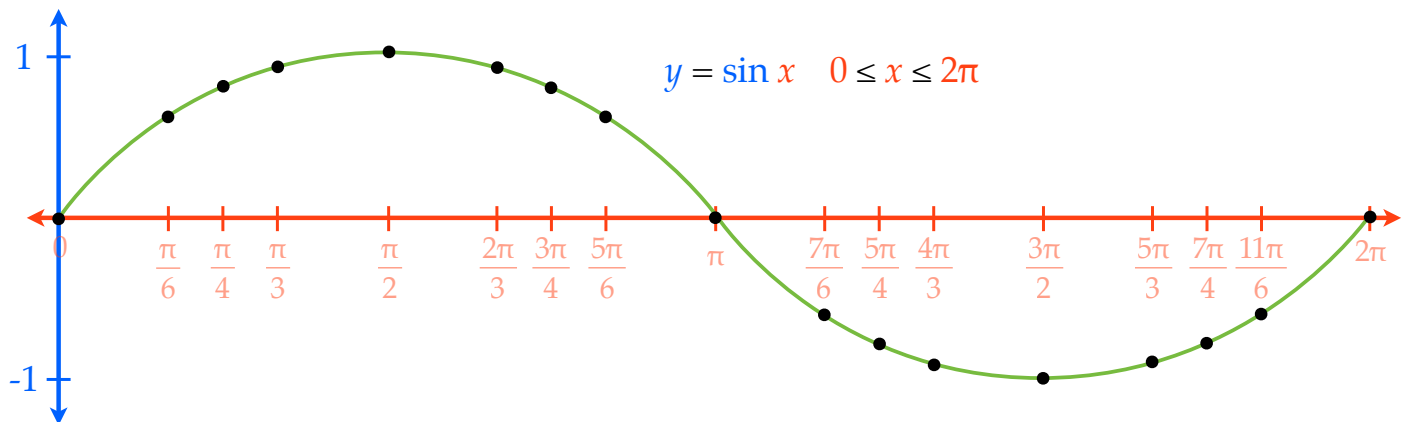


Basic Sine and Cosine Graphs

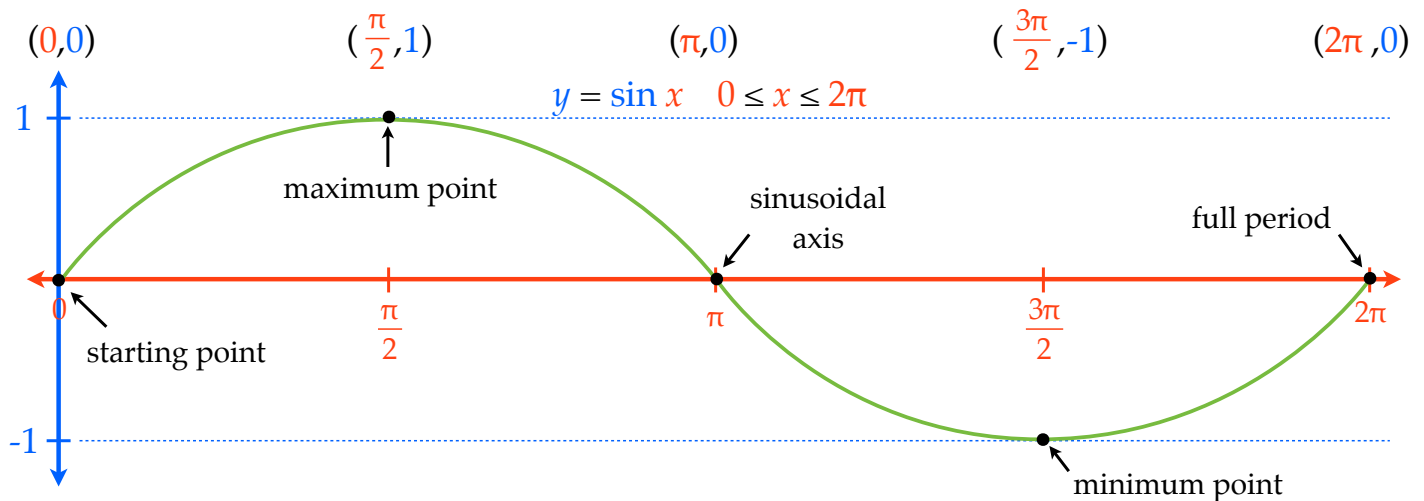
Name _____

Date _____ Period _____

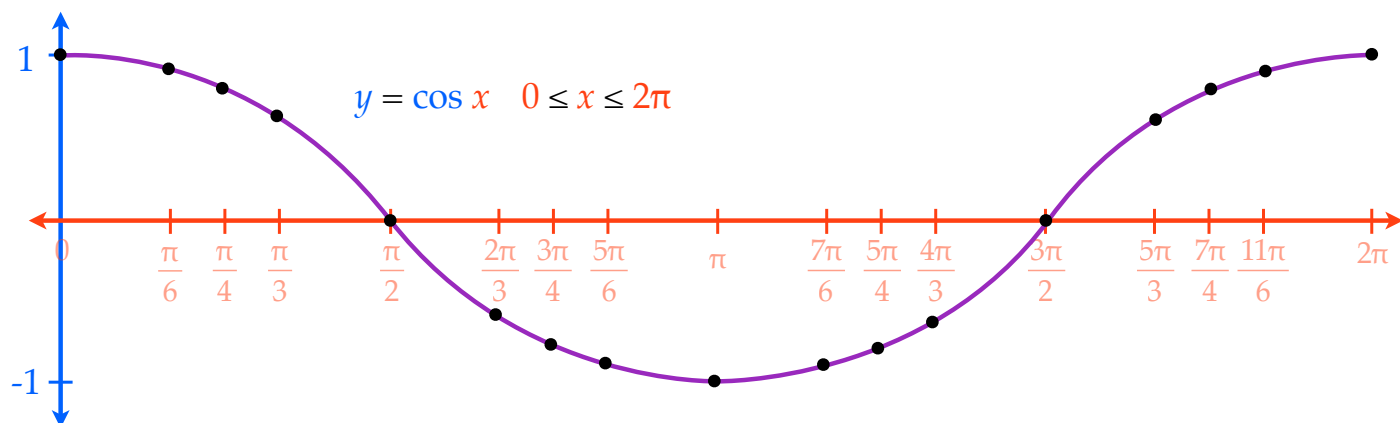
x	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	2π
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0

Graphing $y = \sin x$ using critical pointsCreate four tic marks on the x -axis

$$2\pi \cdot \frac{1}{4} = \frac{2\pi}{4} = \frac{\pi}{2}$$

Period of $\sin x$ is 2π 

x	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	π	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	2π
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1

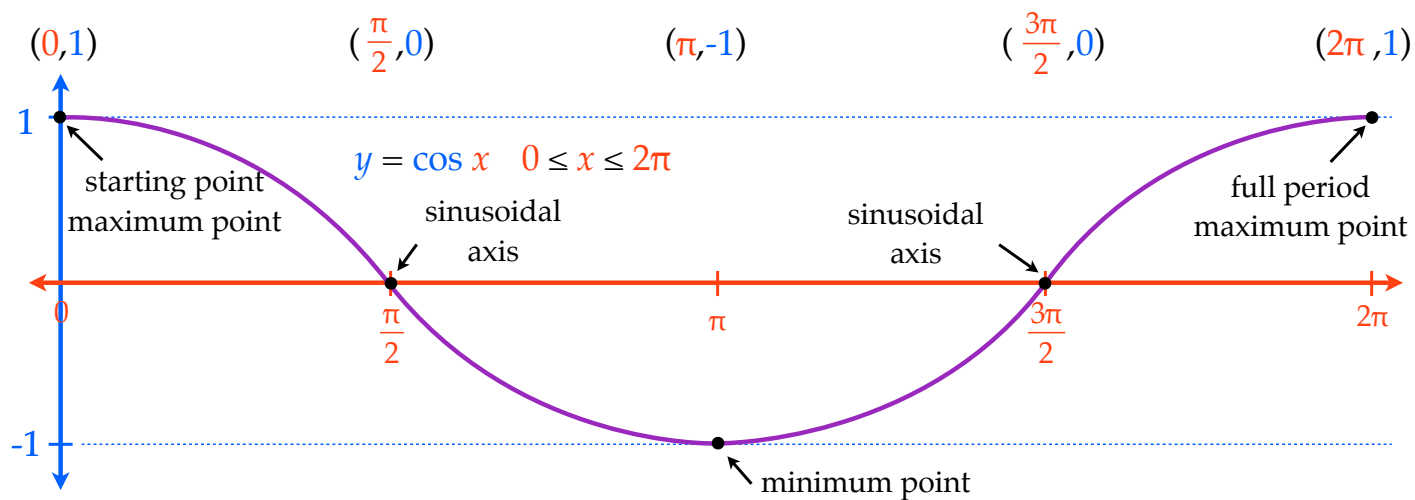


Graphing $y = \cos x$ using critical points

Create four tic marks on the x -axis

$$2\pi \cdot \frac{1}{4} = \frac{2\pi}{4} = \frac{\pi}{2}$$

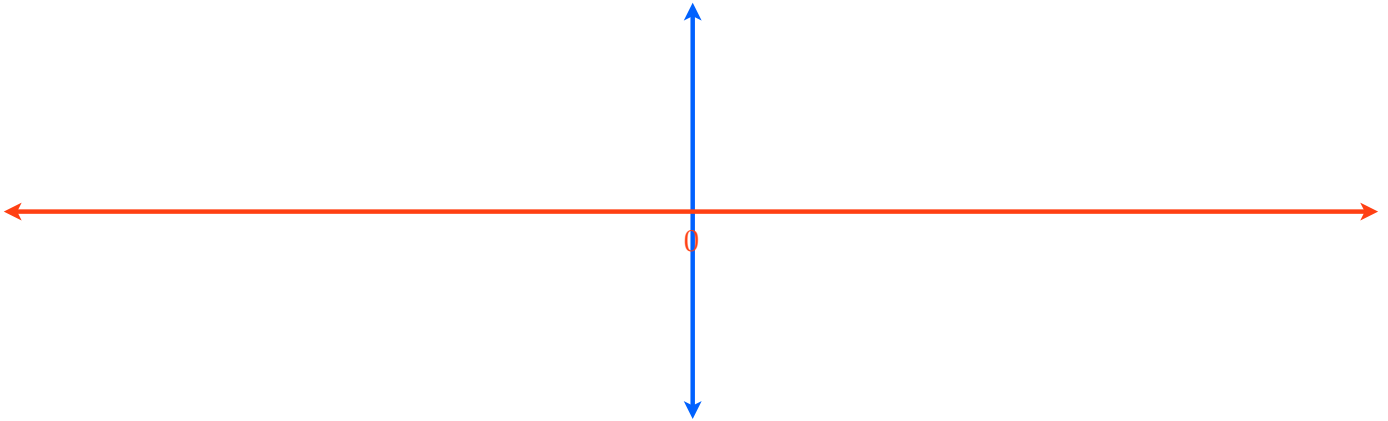
Period of $\cos x$ is 2π



Graph two periods of $y = \sin x$

Period = 2π

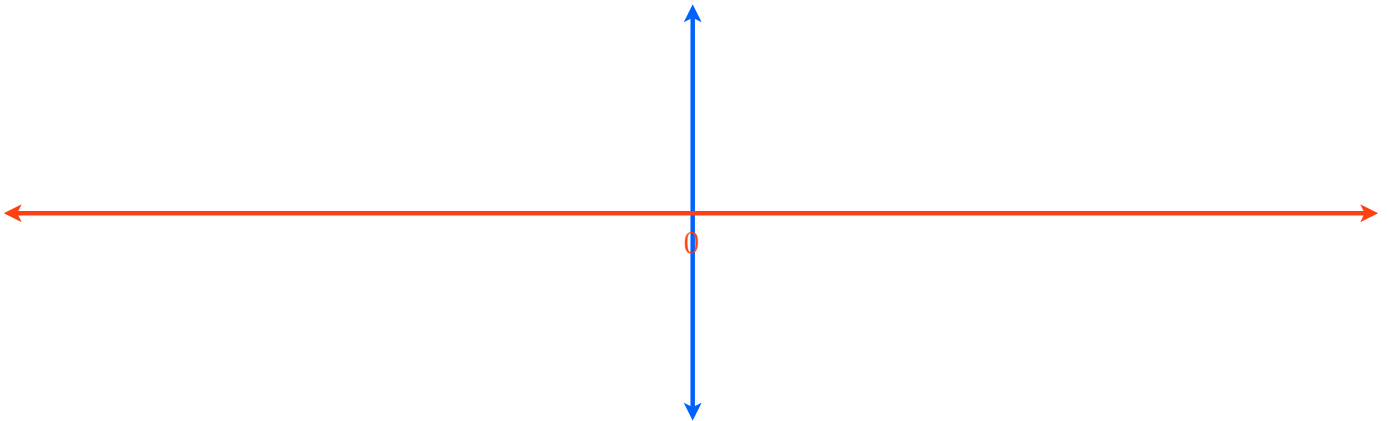
Starting point for $\sin x$ is $(0,0)$



Graph two periods of $y = \cos x$

Period = 2π

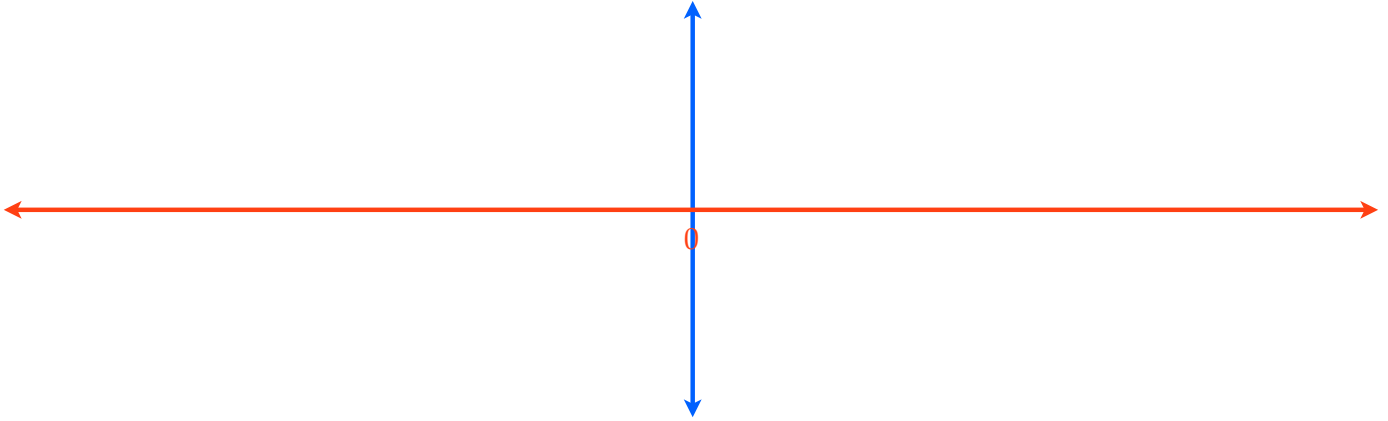
Starting point for $\cos x$ is $(0,1)$



Graph four periods of $y = \sin x$

Period = 2π

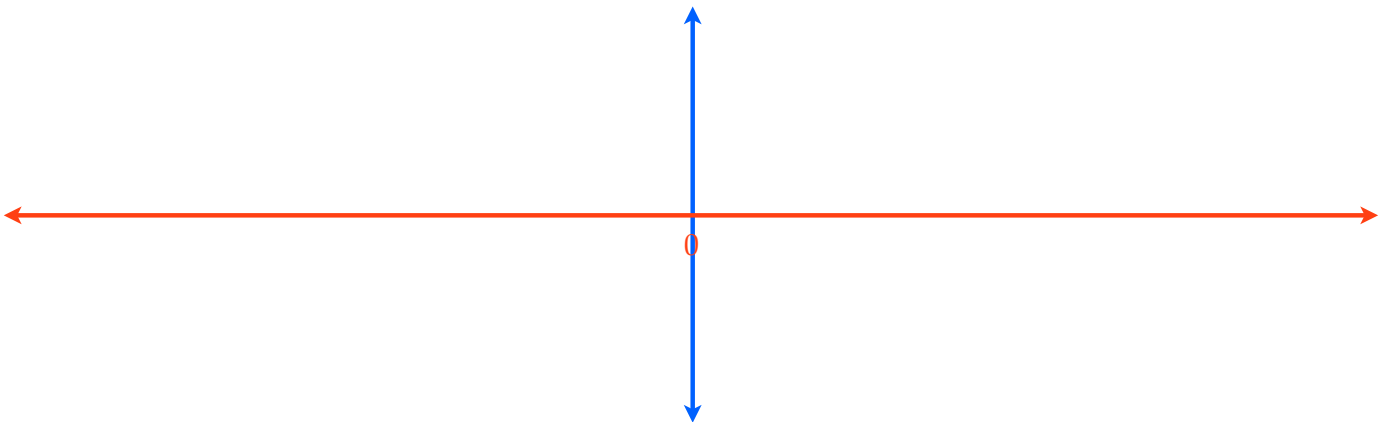
Starting point for $\sin x$ is $(0,0)$



Graph four periods of $y = \cos x$

Period = 2π

Starting point for $\cos x$ is $(0,1)$

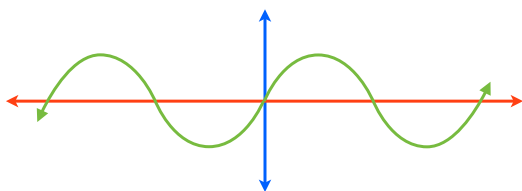


$$y = \sin x$$

$$\text{Period} = 2\pi$$

$$\text{each interval} = \frac{\pi}{2}$$

Starting point for $\sin x$ is $(0,0)$
sinusoidal axis



$$y = \cos x$$

$$\text{Period} = 2\pi$$

$$\text{each interval} = \frac{\pi}{2}$$

Starting point for $\cos x$ is $(0,1)$
maximum value

