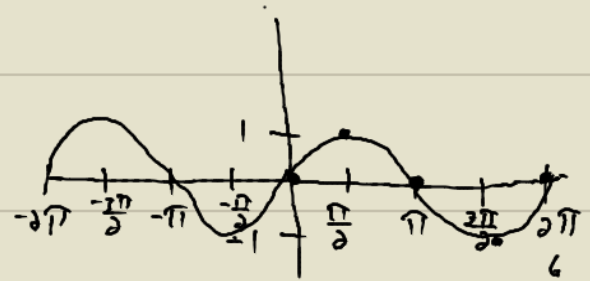


$$y = \sin x \quad y = \cos x$$

- PERIODIC (PERIOD = 2π)

	θ	$y = \sin \theta$
$y = \sin x$ $y = \sin \theta$ ZERO	0	$\sin 0 = 0$
$\frac{1}{4}$ PERIOD	$\frac{\pi}{2}$	$\sin \frac{\pi}{2} = 1$
$\frac{1}{2}$ PERIOD	π	$\sin \pi = 0$
$\frac{3}{4}$ PERIOD	$\frac{3\pi}{2}$	$\sin \frac{3\pi}{2} = -1$
PERIOD	2π	$\sin 2\pi = 0$

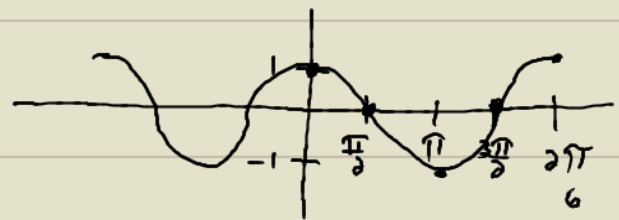


$$y = \cos x$$

$$y = \cos \theta$$

	θ	y
	0	$\cos 0 = 1$
$\frac{1}{4}P$	$\frac{\pi}{2}$	$\cos \frac{\pi}{2} = 0$
$\frac{1}{2}P$	π	$\cos \pi = -1$
$\frac{3}{4}P$	$\frac{3\pi}{2}$	$\cos \frac{3\pi}{2} = 0$
P	2π	$\cos 2\pi = 1$

$$\sin x = \cos(x - \frac{\pi}{2})$$



Form: $y = a \cos(bx)$ OR $y = a \sin(bx)$

$$\text{AMPLITUDE} = |a|$$

$$\text{PERIOD} = \frac{2\pi}{b}$$

1. $y = 5 \cos x$
 $a = 5 \quad b = 1$

$$|a| = |5| = 5$$

$$\text{PERIOD} = \frac{2\pi}{b} = \frac{2\pi}{1} = 2\pi$$

2. $y = -\sin(7x)$

$$a = -1 \quad b = 7$$

$$|a| = |-1| = 1$$

$$\text{PERIOD} = \frac{2\pi}{b} = \frac{2\pi}{7}$$