

Graph of the Parent Function:  $y = \cos \theta$       Sec 13-5

1. Use the Unit Circle to fill out the table below (round decimals to the nearest hundredth)

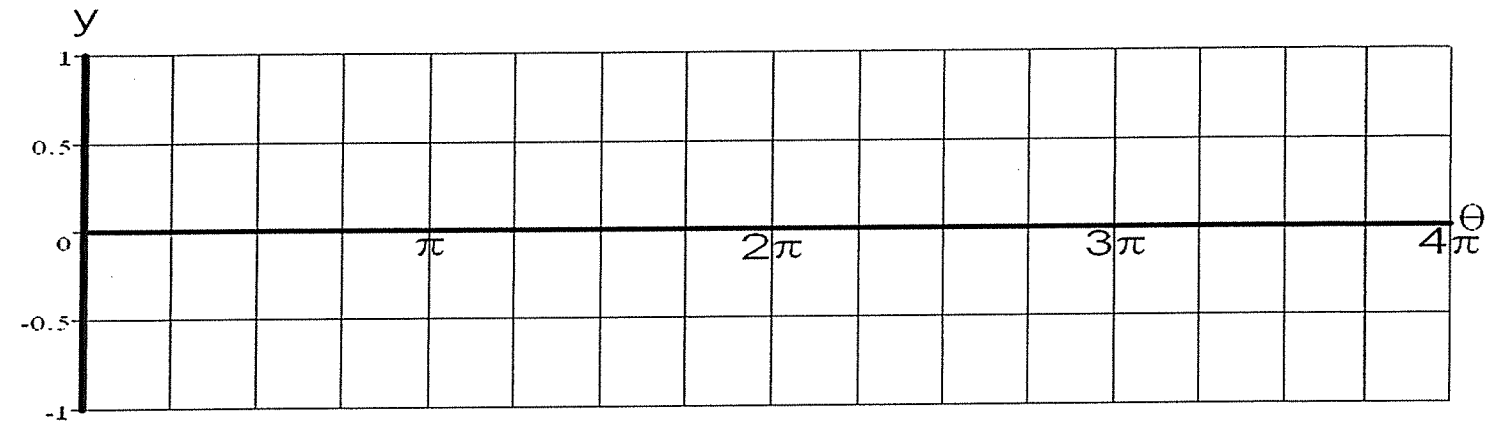
$\theta$	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	$\pi$	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$	$\frac{7\pi}{4}$	$2\pi$	$\frac{9\pi}{4}$	$\frac{5\pi}{2}$	$\frac{11\pi}{4}$	$3\pi$	$\frac{13\pi}{4}$	$\frac{7\pi}{2}$	$\frac{15\pi}{4}$	$4\pi$
$\sin \theta$	0	0.71	1	0.71	0	-0.71	-1	-0.71	0	0.71	1	0.71	0	-0.71	-1	-0.71	0

Use this table to graph two cycles of the Sine Function on the graph below.

2. Use the Unit Circle to fill out the table below (round decimals to the nearest hundredth)

$\theta$	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	$\pi$	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$	$\frac{7\pi}{4}$	$2\pi$	$\frac{9\pi}{4}$	$\frac{5\pi}{2}$	$\frac{11\pi}{4}$	$3\pi$	$\frac{13\pi}{4}$	$\frac{7\pi}{2}$	$\frac{15\pi}{4}$	$4\pi$
$\cos \theta$																	

Use this table to graph two cycles of the Cosine Function on the same graph as Sine. Use a different color than for the Sin function.



3. What is the Period, Amplitude, and Equation for the Midline of the Parent Function  $y = \sin x$

Period =                                      Amplitude =                                      Eq. of Midline:

4. What is the Period, Amplitude, and Equation for the Midline of the Parent Function  $y = \cos x$

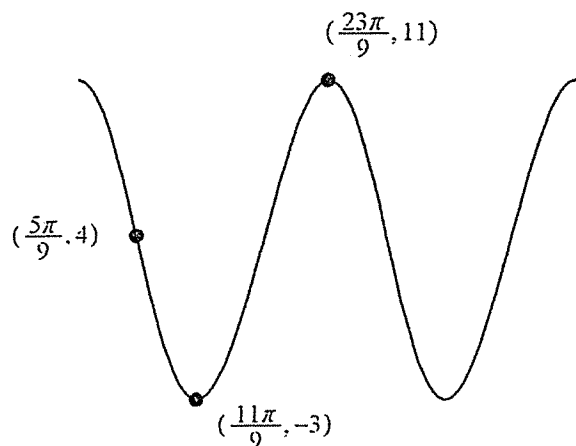
Period =                                      Amplitude =                                      Eq. of Midline:

5. How is the graph of  $\cos x$  related to the graph of  $\sin x$ ?

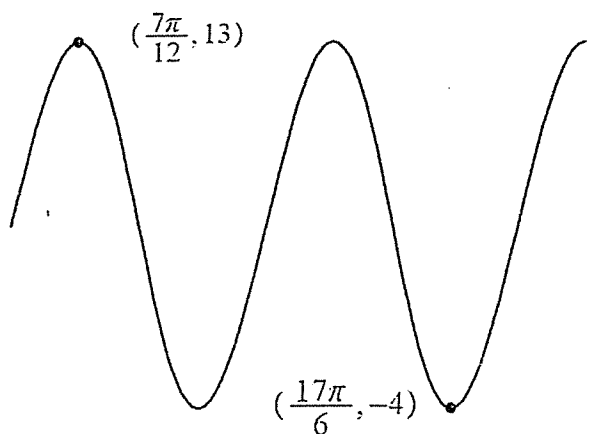
#s 6 to 8 are on the back.

Find the Period, Amplitude, and the equation for each of the Cosine graphs shown.

6.



7.



8. Graph one period of the following function. State the coordinates of all maximums, minimums, and x-intercepts.

$$y = 3\cos 5x$$

