Bellwork Alg 2 Wednesday, April 24, 2019

1. Coordinates of the points of Sinθ are graphed below and connected with a smooth curve.

θ	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$	$\frac{7\pi}{4}$	2π	$\frac{9\pi}{4}$	$\frac{5\pi}{2}$	$\frac{11\pi}{4}$	3π	$\frac{13\pi}{4}$	$\frac{7\pi}{2}$	$\frac{15\pi}{4}$	4π
Sinθ	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

2. Use a calculator to fill out this table for Cosθ. Round to the nearest hundredth and plot on the same graph as Sinθ. Then connect these points with a smooth curve.

θ	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$	$\frac{7\pi}{4}$	2π	$\frac{9\pi}{4}$	$\frac{5\pi}{2}$	$\frac{11\pi}{4}$	3π	$\frac{13\pi}{4}$	$\frac{7\pi}{2}$	$\frac{15\pi}{4}$	4π
Cosθ																	

For the graph of Cosθ find the following:

Amplitude = Eq of Midline: Period =

Starting with the first point, highlight one cycle of the Cosine function.

One cycle of the parent Sine function looks like a sideways "S". What does one period of the parent Cosine function look like?

The starting point for $y = \sin\theta$ is the origin. What is the starting point for $y = \cos\theta$?

How are the graphs of Cosx and Sinx of the SAME?

How are the graphs of Cosx and Sinx of the DIFFERENT?

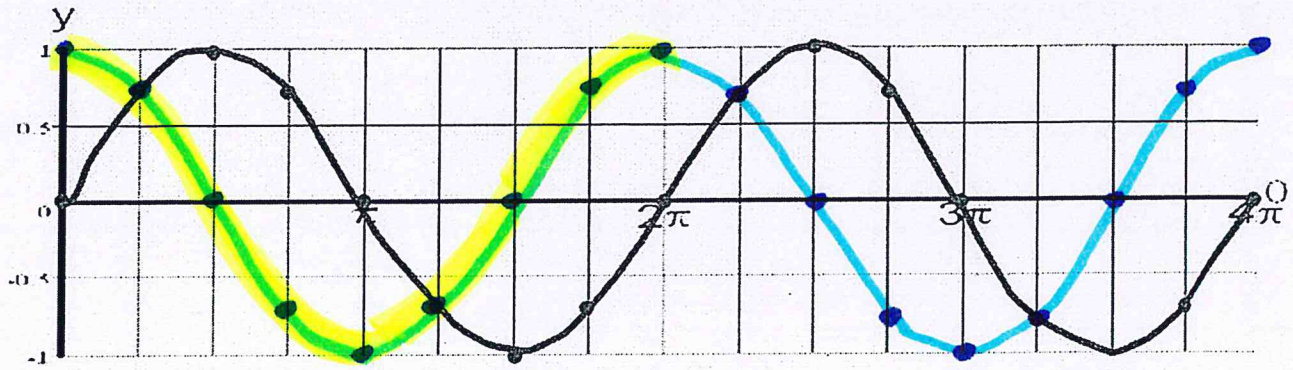
Bellwork Alg 2 Wednesday, April 24, 2019 ANSWERS

1. Coordinates of the points of Sinθ are graphed below and connected with a smooth curve.

θ	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$	$\frac{7\pi}{4}$	2π	$\frac{9\pi}{4}$	$\frac{5\pi}{2}$	$\frac{11\pi}{4}$	3π	$\frac{13\pi}{4}$	$\frac{7\pi}{2}$	$\frac{15\pi}{4}$	4π
Sinθ	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

2. Use a calculator to fill out this table for Cosθ. Round to the nearest hundredth and plot on the same graph as Sinθ. Then connect these points with a smooth curve.

θ	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$	$\frac{7\pi}{4}$	2π	$\frac{9\pi}{4}$	$\frac{5\pi}{2}$	$\frac{11\pi}{4}$	3π	$\frac{13\pi}{4}$	$\frac{7\pi}{2}$	$\frac{15\pi}{4}$	4π
Cosθ	1	0.71	0	−0.71	−1	−0.71	0	0.71	1	0.71	0	−0.71	−1	−0.71	0	0.71	1



For the graph of Cosθ find the following:

Amplitude = 1 Eq of Midline: $y = 0$ Period = 2π

Starting with the first point, highlight one cycle of the Cosine function.

One cycle of the parent Sine function looks like a sideways "S". What does one period of the parent Cosine function look like?

1 cycle of Cosine resembles a "U" or a parabola.

The starting point for $y = \sin\theta$ is the origin. What is the starting point for $y = \cos\theta$?

(0,1)

How are the graphs of Cosx and Sinx of the SAME?

They have the same overall "shape".
They also have the same Amplitude, Midline, & Period.

How are the graphs of Cosx and Sinx of the DIFFERENT?

They "start" in different places.