

Friday February 17, 2012
 HW# 7
 Q: How do we draw the graph of $y = \sin x$ and $y = \cos x$?

Do Now complete table (Do not use a calculator)

x	0	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π
$\cos x$	1	0	-1	0	1
$\sin x$	0	1	0	-1	0

Remember Unit Circle

$\frac{2\pi}{3} = \frac{2 \times 180}{3} = \frac{360}{3} = 120$ Degrees \rightarrow Rad.
 $\frac{2\pi}{2} = \frac{2 \times 180}{2} = 270$
 $90^\circ \rightarrow \frac{\pi}{2}$
 $90^\circ \times \frac{\pi}{180} = \frac{\pi}{2}$
 $\frac{\pi}{2} \cdot \frac{180}{\pi} = \frac{180}{2} = 90^\circ$
 $1 \cdot \frac{180}{\pi} = \frac{180}{\pi} = \frac{180}{3.1416} \approx 57.3^\circ$

Feb 17-8:30 AM

I- Graph $y = \sin x$

x	0	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π
$\cos x$	1	0	-1	0	1
$\sin x$	0	1	0	-1	0

Domain(x): All Real Numbers
 Range(y): $-1 \leq y \leq 1$

Cycle

II- Graph $y = \cos x$

Domain(x): All Real Numbers
 Range(y): $-1 \leq y \leq 1$

$\cos 90 = 0$
 $\cos^{-1} 0 = 90$
 $\cos -270 = 0$
 $\cos^{-1} 0 = 270$

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III - Graph of $\sin x, \cos x$

1) Amplitude (a) - High/Low
 2) Period
 3) Frequency

$y = (a)\sin x$

Feb 17-9:21 AM