CC Algebra 2/Trig Honors 11-1/11-2 Graphing Trig Functions **Date** May 28

Graphing $y = a \sin bx$ and $y = a \cos bx$

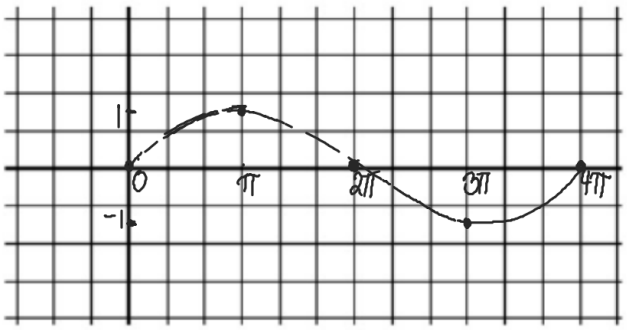
amplitude $|a|$ **range** $-a \le y \le a$ **period** $\frac{2\pi}{|b|}$

Ex. 1: $y = \frac{3}{2}\sin\frac{1}{2}x$

amplitude $= \frac{3}{2}$

range $-3/2 \le y \le \frac{3}{2}$

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

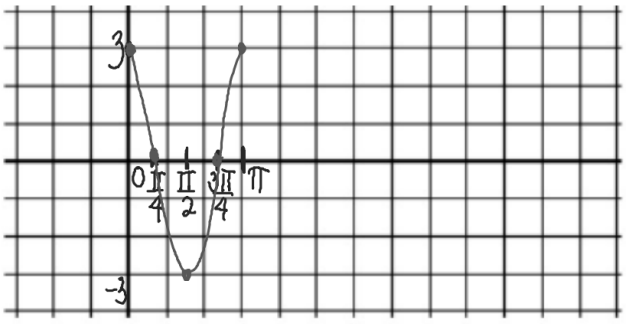


Ex. 2: $y = 3\cos 2x$

amplitude 3

range $-3 \le y \le 3$

period $\frac{2\pi}{2} = \pi$



Graphing $y = a \tan bx$ **asymptotes: 1st and 5th key points**

period $\frac{\pi}{|b|}$ **range** $-\infty < y < \infty$ $\mp a$ **: 2nd and 4th key points**

$-a$ $+a$

Ex. 3: $y = 2\tan\frac{1}{4}x$

$Fa = F2$

period : $\frac{\pi}{\frac{1}{4}} = 4\pi$