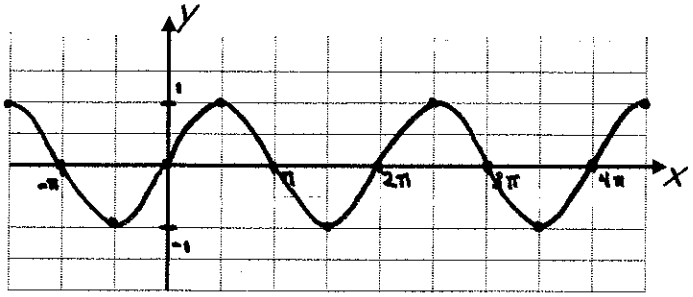
Names KEY (note: I graphed more cycles than required)

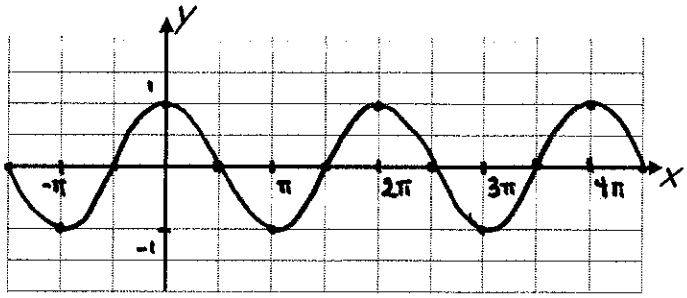
Group Work 2: Graphs of Sinusoidal Functions

Label units on each axis for each of the 8 graphs, you're asked to draw here. This is worth 24 points.

Graph **two basic cycles** of $y = \sin x$ and $y = \cos x$ **by carefully plotting the 5 key points for each cycle:**



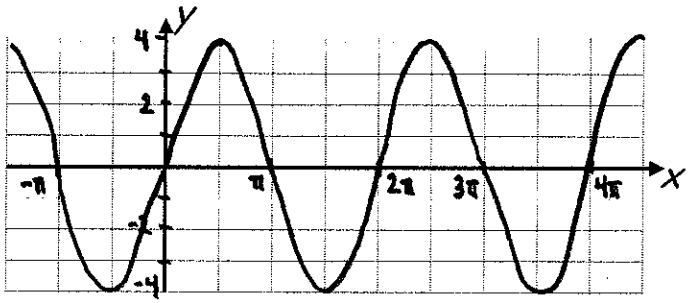
Amplitude: 1 Period: 2π



Amplitude: 1 Period: 2π

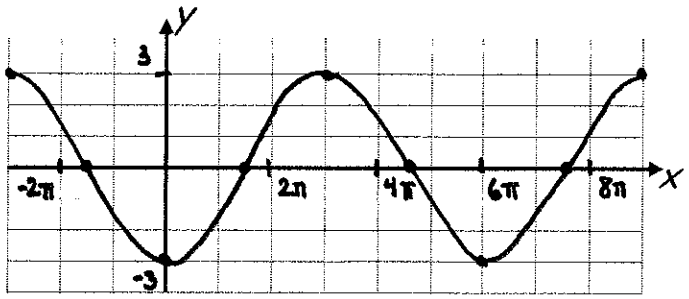
Graph **one basic cycle of each** by carefully plotting the 5 key points:

$y = 4\sin x$



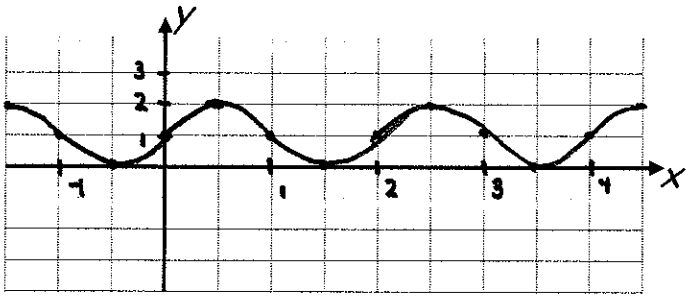
Amplitude: 4 Period: 2π

$y = -3\cos\left(\frac{1}{3}x\right)$



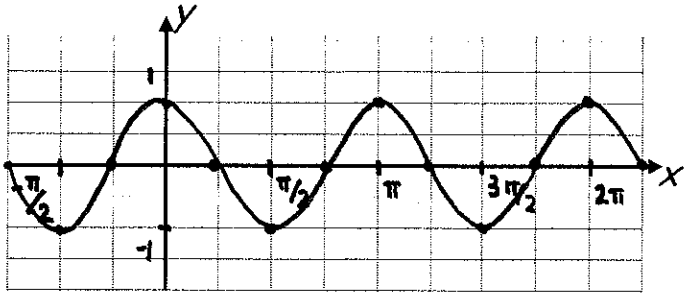
Amplitude: 3 Period: 6π

$y = 1 + \sin(\pi x)$



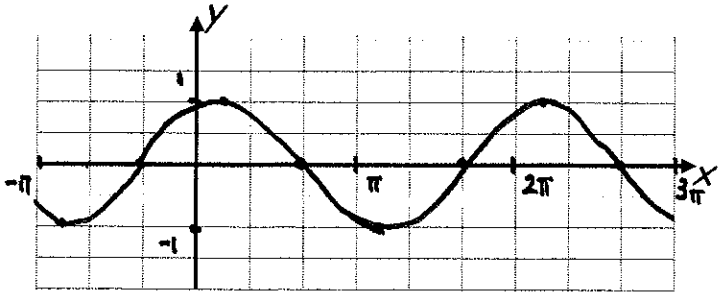
Amplitude: 1 Period: 2

$y = \cos(2x)$



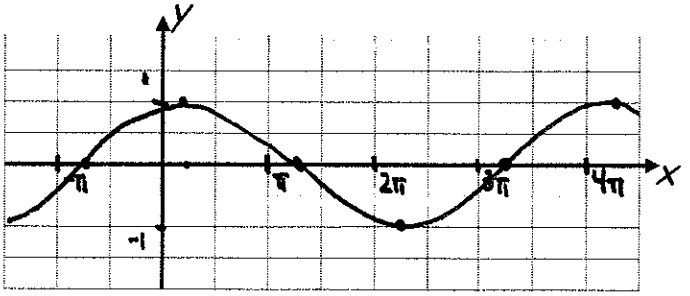
Amplitude: 1 Period: π

$y = \sin\left(x + \frac{\pi}{3}\right)$



Amplitude: 1 Period: 2π Phase Shift: $-\frac{\pi}{3}$

$y = \cos\left(\frac{1}{2}\left(x - \frac{\pi}{4}\right)\right)$



Amplitude: 1 Period: 4π Phase Shift: $\frac{\pi}{4}$