

Names \_\_\_\_\_

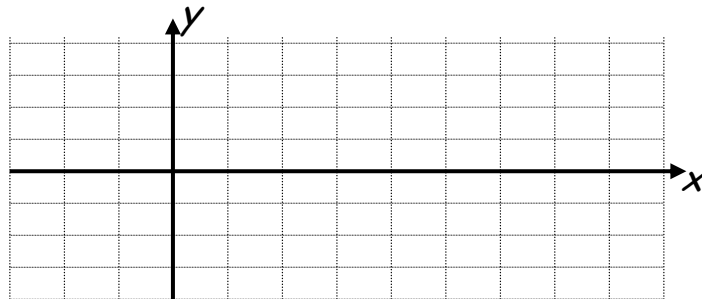
### Group Work 2: Graphs of Sinusoidal Functions

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:



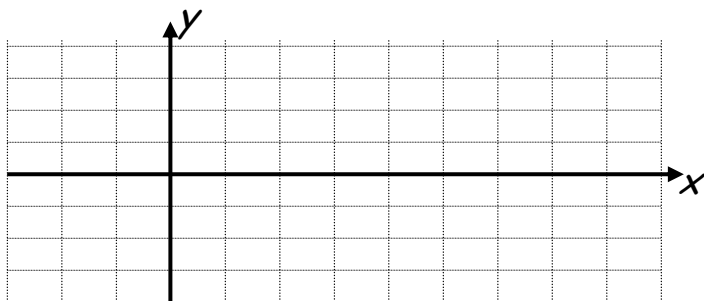
Amplitude:                  Period:



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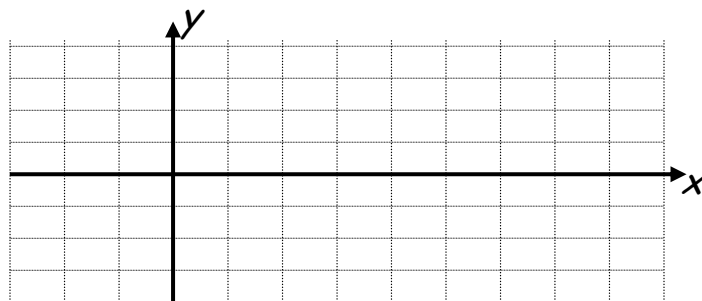
Graph **one basic cycle of each** by carefully plotting the 5 key points:

$y = 4 \sin x$



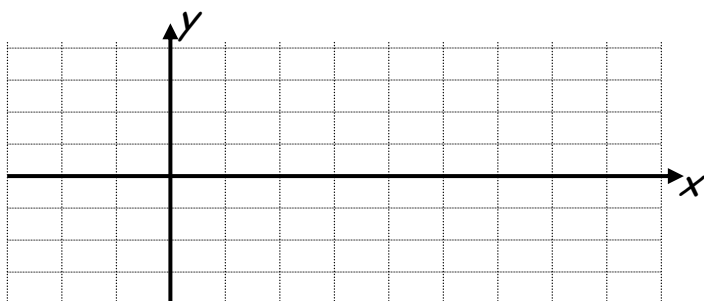
Amplitude:                  Period:

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



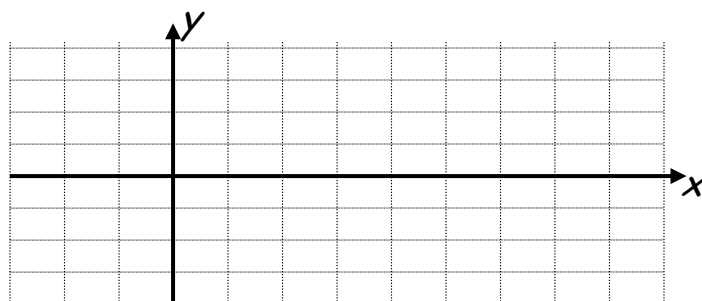
Amplitude:                  Period:

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



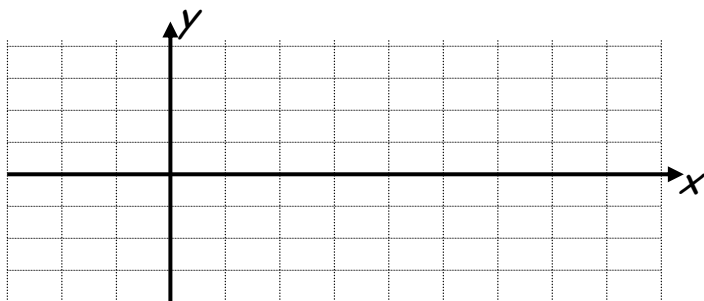
Amplitude:                  Period:

$y = \cos(2x)$



Amplitude:                  Period:

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



Amplitude:                  Period:                  Phase Shift:

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



Amplitude:                  Period:                  Phase Shift: