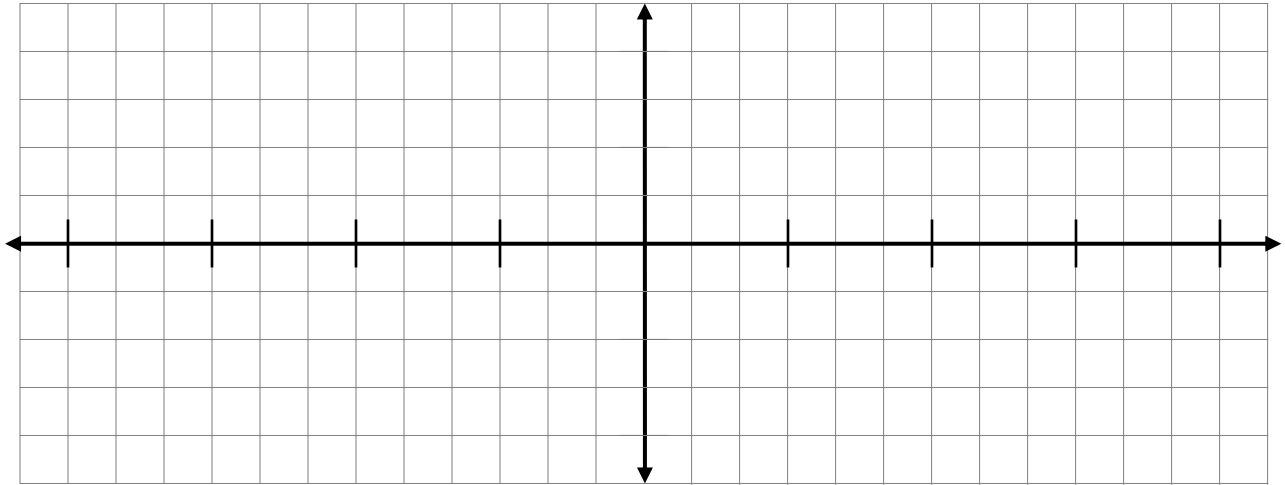


Pre-Calculus (A)  
Do the Wave!

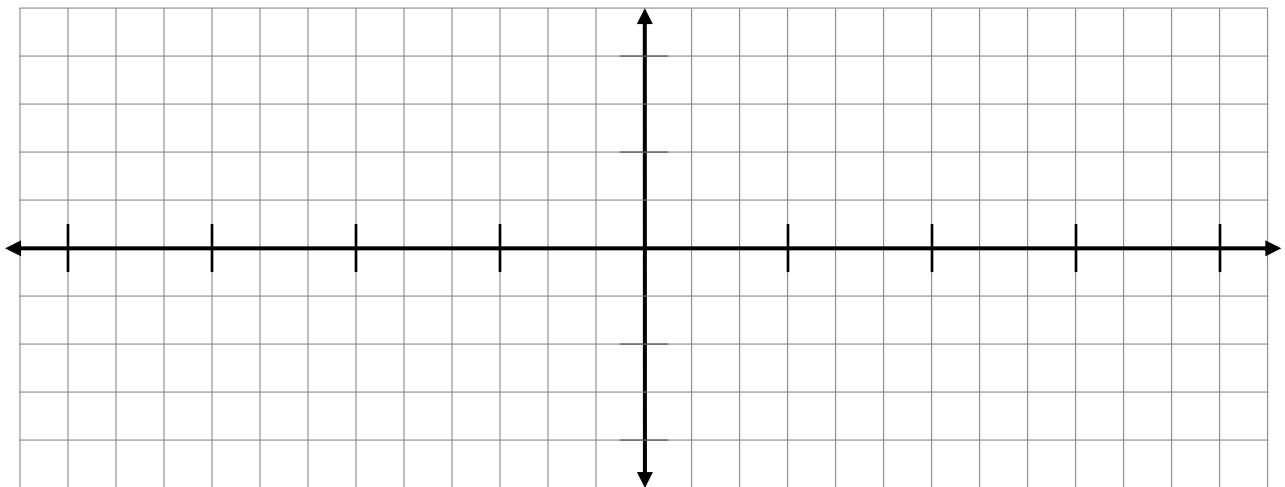
Name \_\_\_\_\_  
Date \_\_\_\_\_

Graph **two** full periods of the following curves. Put your work on a separate sheet of paper.

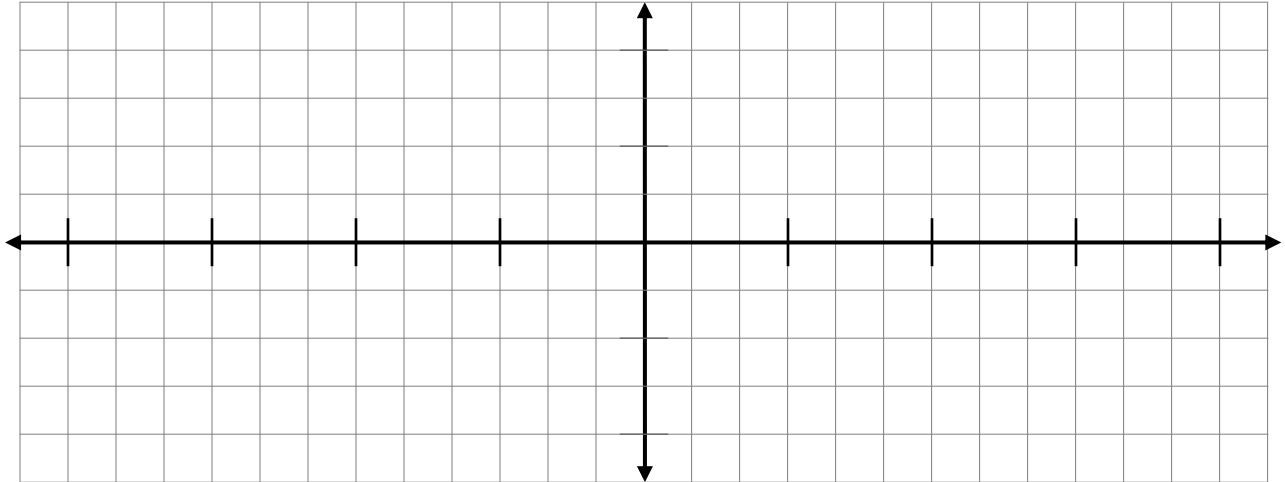
1.  $y = -4\sin(2x - \pi)$



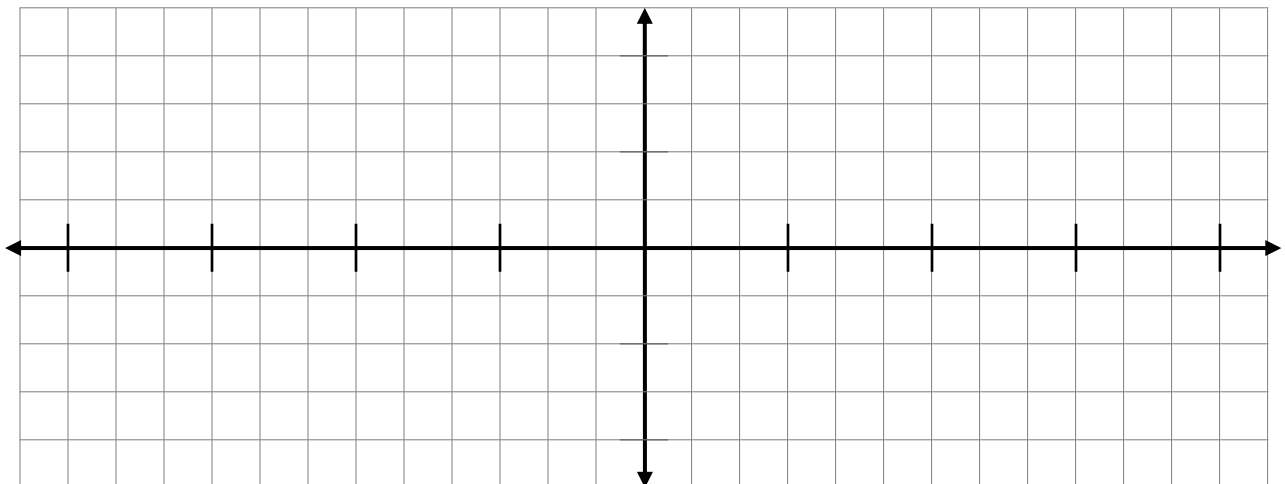
2.  $y = \sin\left(\frac{\pi}{3}x + \frac{\pi}{3}\right)$



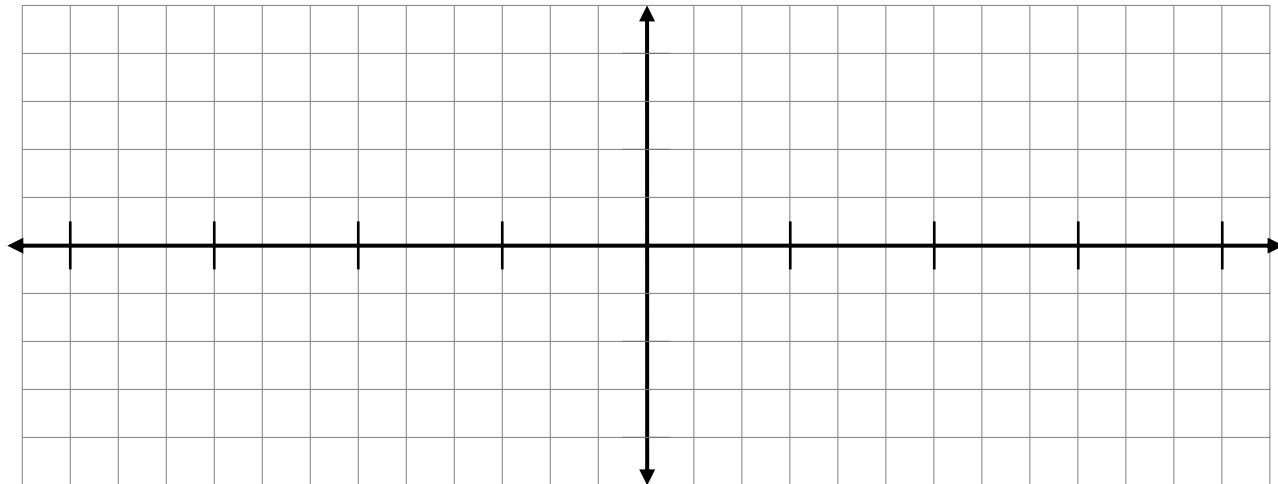
3.  $y = \cos\left(2\pi x - \frac{\pi}{2}\right) + 1$



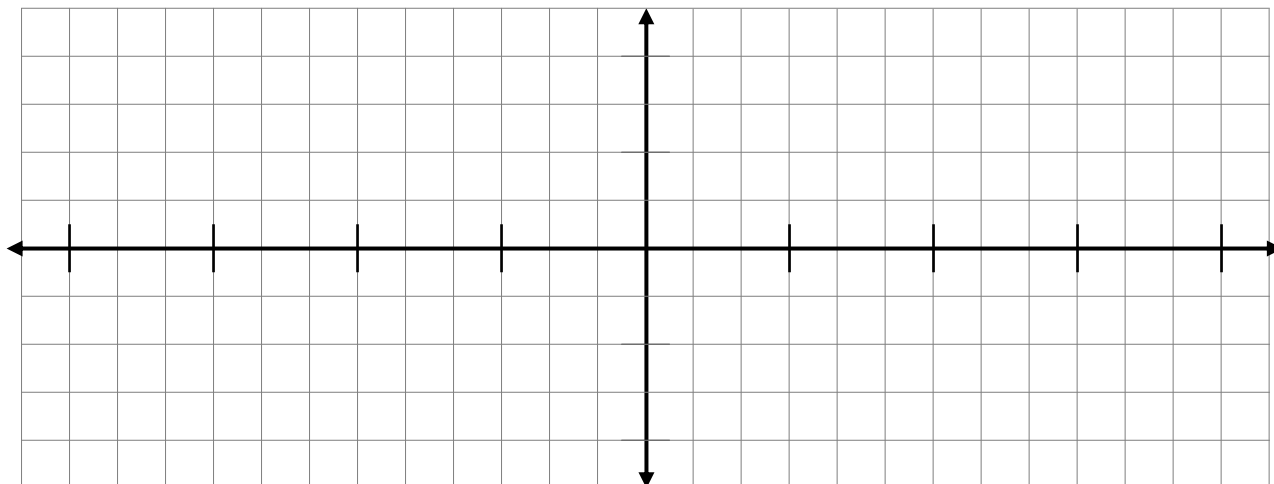
4.  $y = 5\sin(\pi + 2x) + 10$



5.  $y = -2\cos\left(\frac{1}{3}x + \frac{\pi}{12}\right) - 2$



6.  $y = \frac{2}{3}\cos\left(\frac{1}{2}x - \frac{\pi}{4}\right)$



7.  $y = -2\cos\left(\frac{1}{3}x + \frac{\pi}{12}\right) - 2$

Determine the following for the curve graphed in #5.

Amplitude \_\_\_\_\_

Period \_\_\_\_\_

Reflection \_\_\_\_\_

Vertical \_\_\_\_\_

Horizontal \_\_\_\_\_

Phase shift \_\_\_\_\_

Horizontal shift \_\_\_\_\_

Axis of wave \_\_\_\_\_