

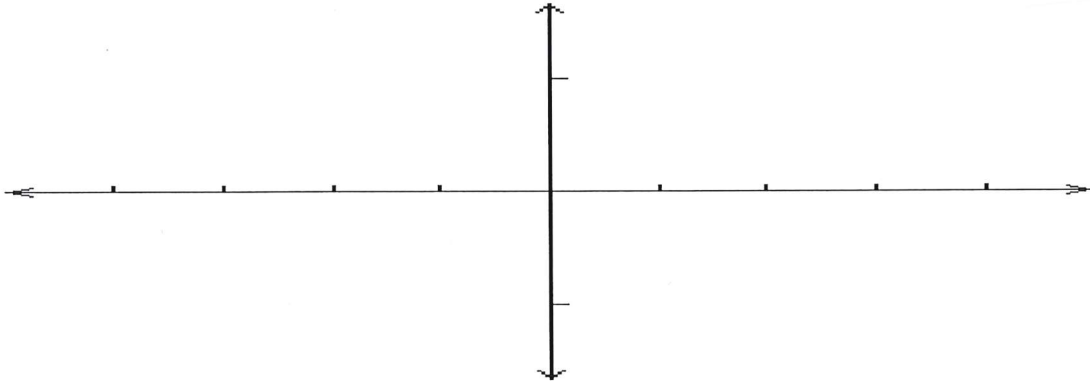
**Graphing Sine and Cosine**  
Practice Worksheet

Graph the following functions over two periods, one in the positive direction and one in the negative direction. Label the axes appropriately.

1.  $y = -3 \cos x$

Amplitude: \_\_\_\_\_

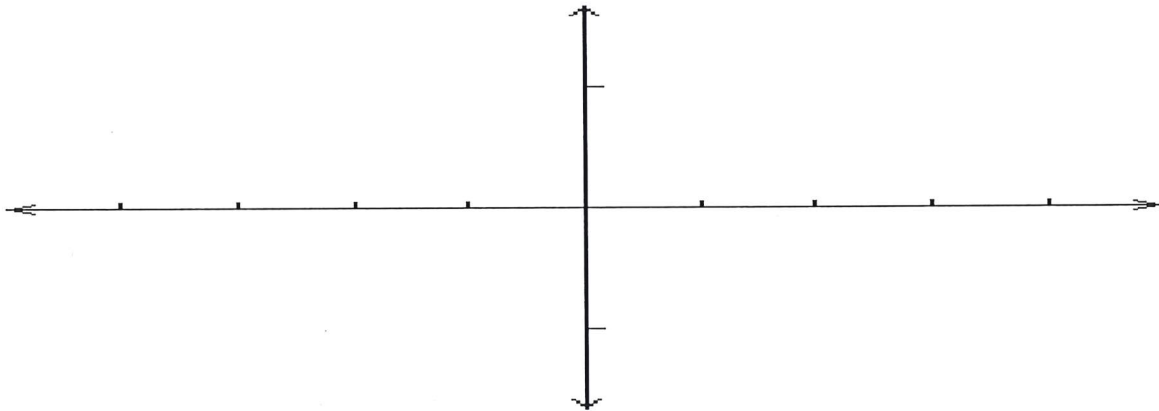
Period: \_\_\_\_\_



2.  $y = \sin(4x)$

Amplitude: \_\_\_\_\_

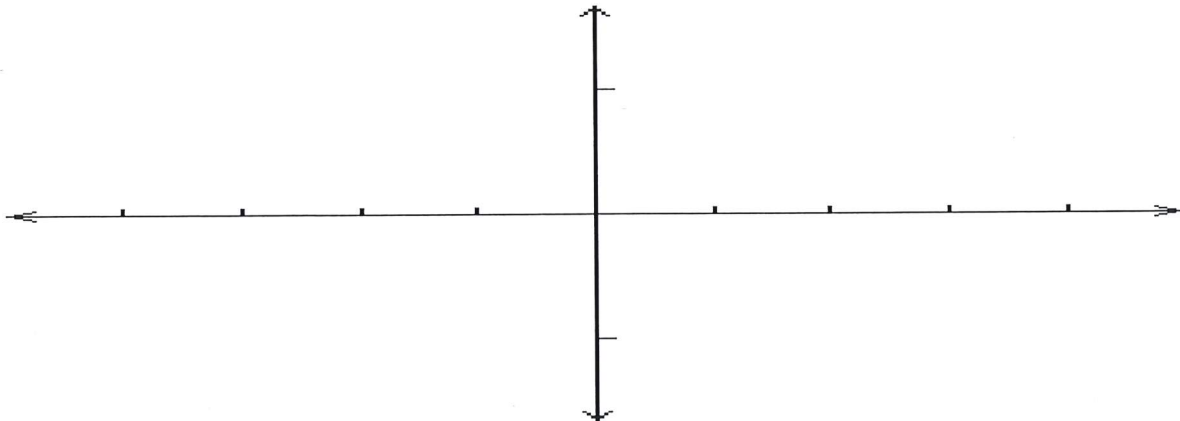
Period: \_\_\_\_\_



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

Amplitude: \_\_\_\_\_

Period: \_\_\_\_\_

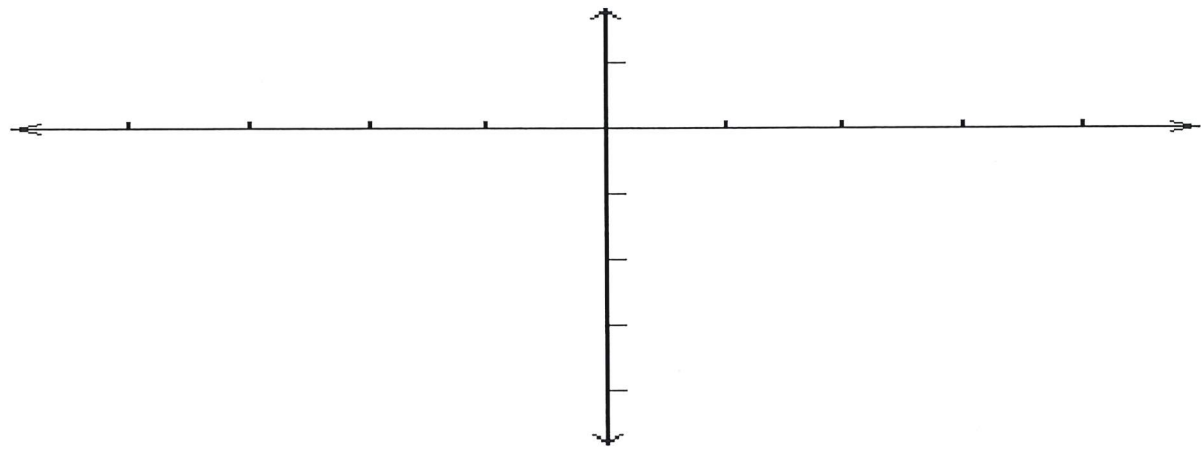


4.  $y = 2 \cos(\pi x - 3\pi)$

Amplitude: \_\_\_\_\_

Period: \_\_\_\_\_

Shift: \_\_\_\_\_

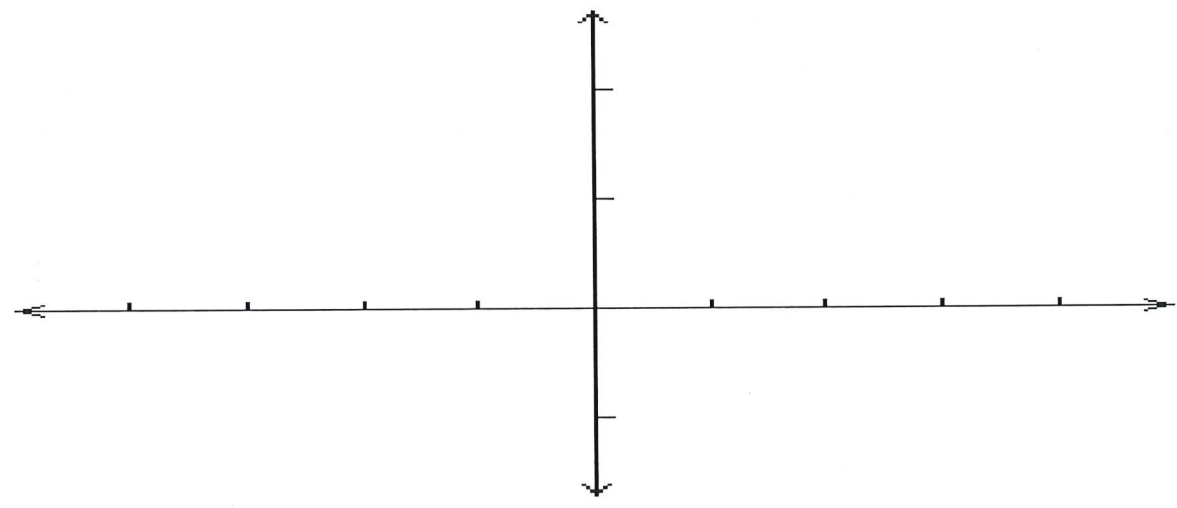


5.  $y = 1 - 3 \sin(2x)$

Amplitude: \_\_\_\_\_

Period: \_\_\_\_\_

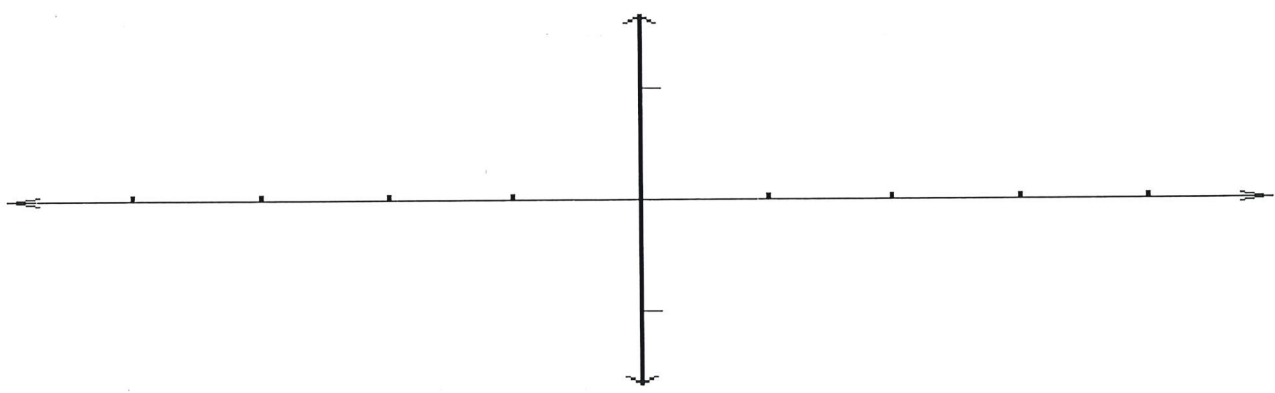
Shift: \_\_\_\_\_



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

Amplitude: \_\_\_\_\_

Period: \_\_\_\_\_

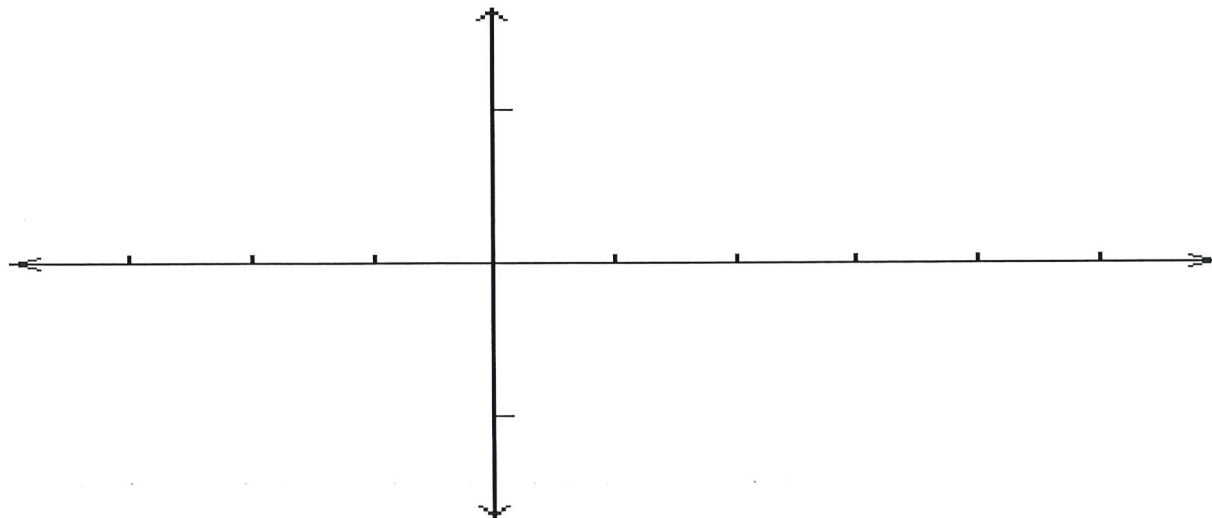


7.  $y = \cos\left(2x - \frac{\pi}{2}\right)$

Amplitude: \_\_\_\_\_

Period: \_\_\_\_\_

Shift: \_\_\_\_\_



Write the equation of a cosine function of the form  $y = A\cos(Bx - C) + D$  that has the given characteristics.

9. Amplitude: 2

Period:  $\frac{\pi}{3}$

Shift: Down 1 unit

10. Amplitude: 4

Period: 3

Shift 1:  $\frac{\pi}{8}$  to the right

Shift 2: up 2 units