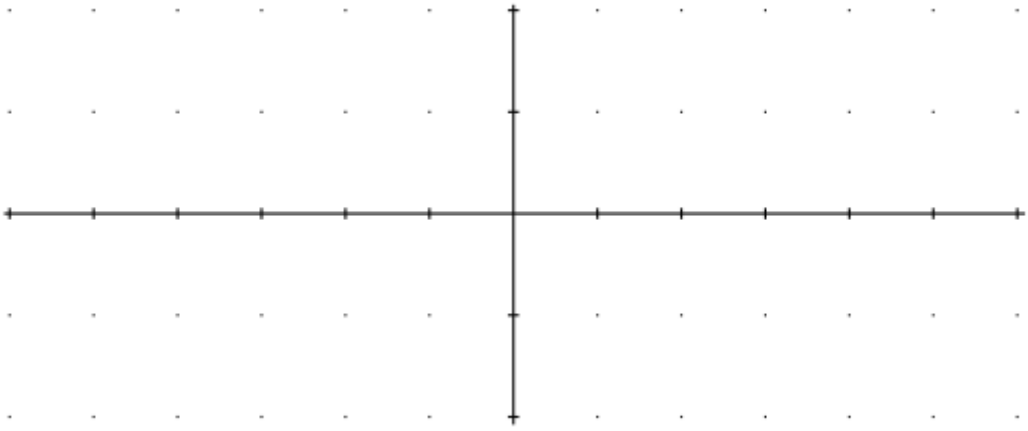
MAT 112 Worksheet to go with 7.6-7.8 **Name: _____**
Graphing Trig Functions **Seat #: _____ - _____**

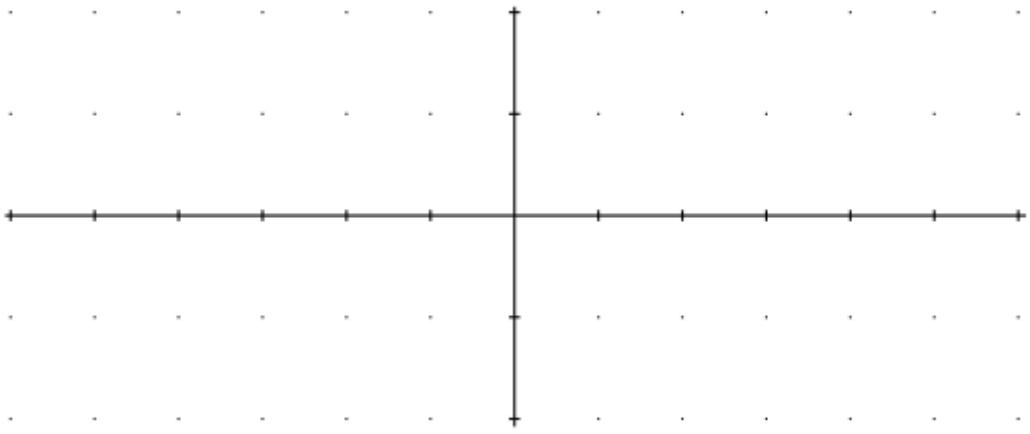
Graph the following functions one period in the + x direction and one period in the – x direction. Find pertinent information. Label the axis appropriately.

1. $y = -3\cos x$ Amplitude: _____ Period: _____ x-scale: _____

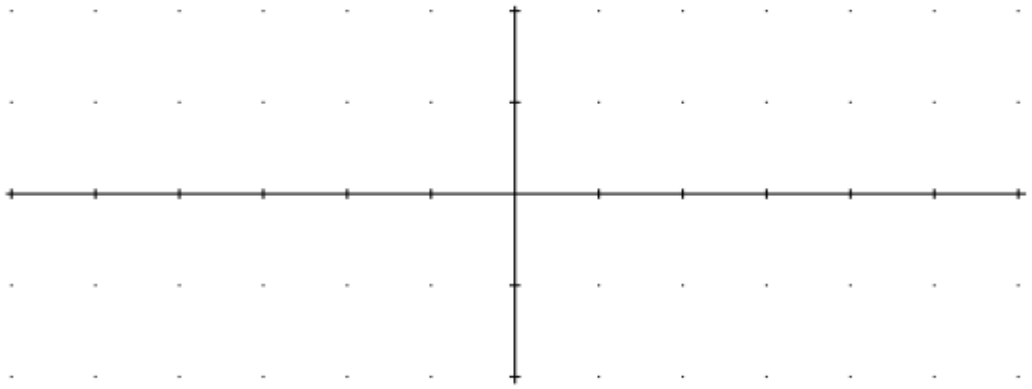
Other: _____



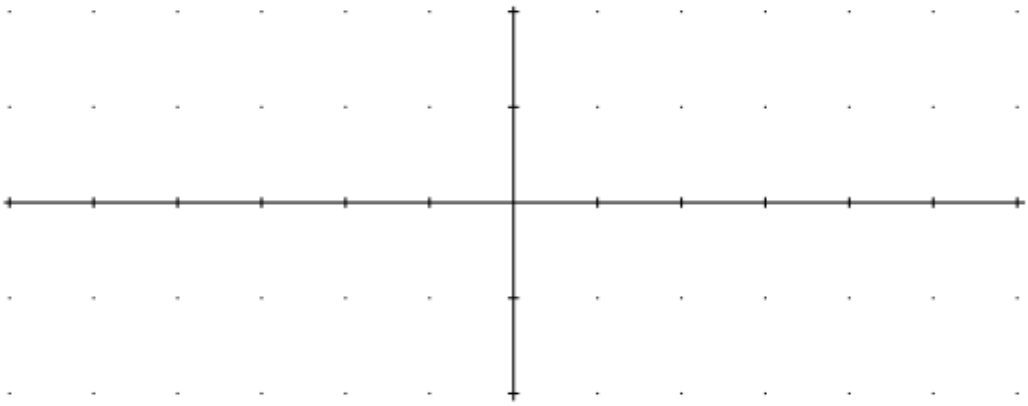
2. $y = \sin 4x$ Amplitude: _____ Period: _____ x-scale: _____



3. $y = 2\cos\frac{1}{4}x$ Amplitude: _____ Period: _____ x-scale: _____



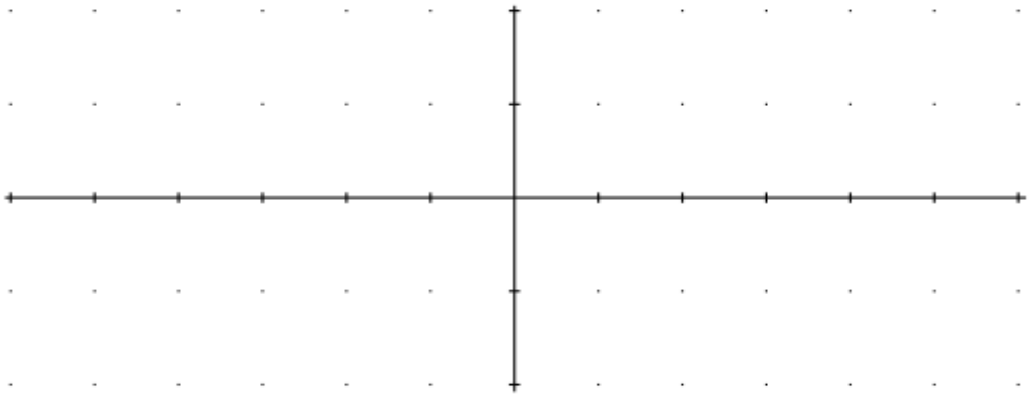
4. $y = 2\cos \pi x - 3$ Amplitude: _____ Period: _____ x-scale: _____
Other: _____



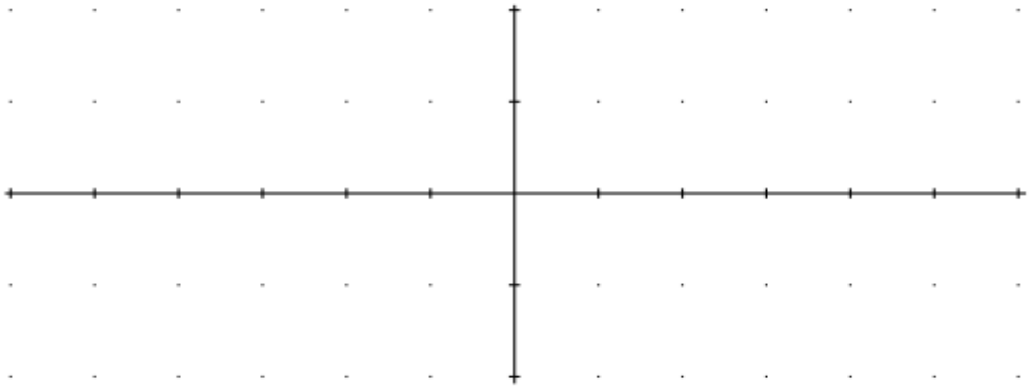
5. $y = 1 - 3\sin 2x$ Amplitude: _____ Period: _____ x-scale: _____

Other:

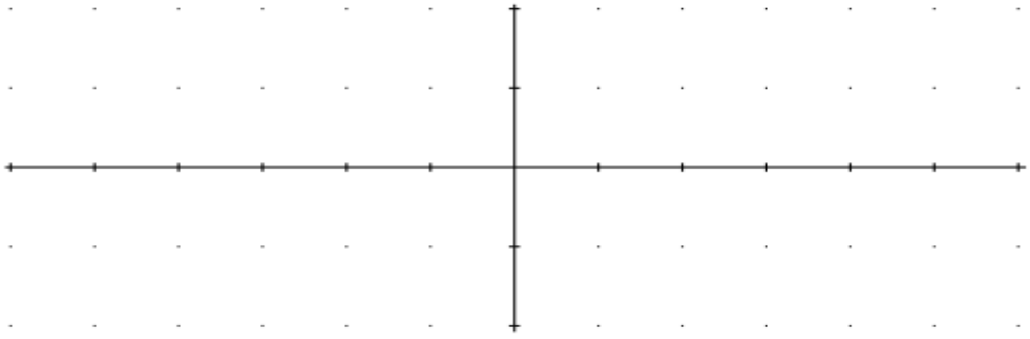
_____



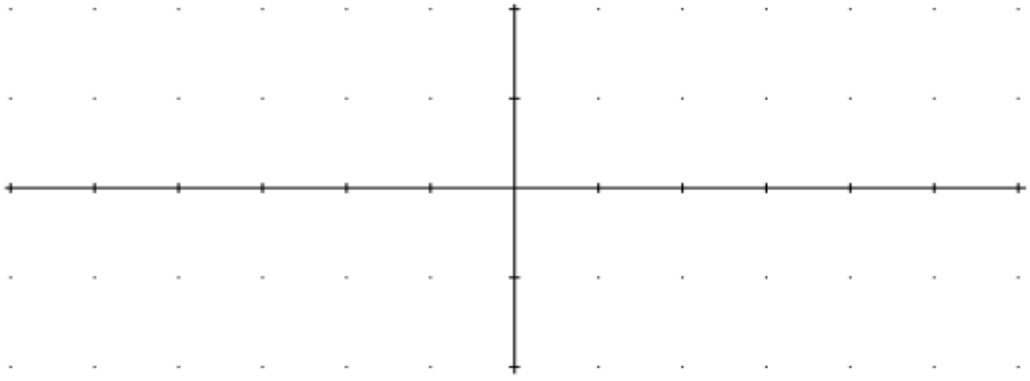
6. $y = \sin(\frac{-2\pi}{3}x)$ Amplitude: _____ Period: _____ x-scale: _____



7. $y = \cos(2x - \frac{\pi}{2})$ Amplitude: _____ Period: _____ x-scale: _____



8. $y = 4\sin(\pi x + 2) - 1$ Amplitude: _____ Period: _____ x-scale: _____
Other: _____



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

9. Amplitude: 2 Equation: _____

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

Vertical shift down 1 unit

10. Amplitude: 4 Equation: _____

Period: 3

Phase shift: $\frac{\pi}{8}$ to the right

Vertical shift up 2 units