Honors Pre-Calculus Section 4.4 Practice Name:_____ Period:_____

Section 4.4 Graphing Sine and Cosine Functions

SHOW ALL WORK! (Critical points: min, max, and intercepts of the midline or x-axis)

1.) Graph **one full period** of the following function:

$$y = 3 - 4\sin\frac{x}{2}$$

Amplitude_____ Period_____ Phase Shift/Left Endpoint_____ Right Endpoint_____ Vertical Shift_____

Graph:

Critical Points_____

2.) Graph **one full period** of the following function:

$$y = \cos(2x + 2\pi)$$

Amplitude_____ Period_____ Phase Shift/Left Endpoint_____ Right Endpoint_____ Vertical Shift_____

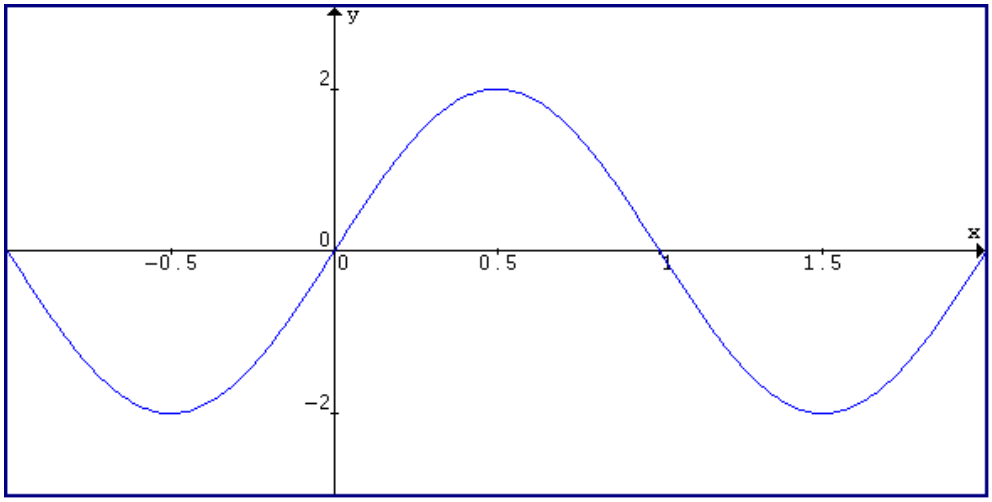
Graph:

Critical Points _____

3.) Write the function of the sine graph described below:

The function $f(x)$ has a vertical shift of -9, completes one full period in 2π radians, has a phase shift of π, and has an amplitude of 3.

4.) Answer the following questions about the graph below:



What is the:

Amplitude_____ Period _____ Phase Shift _____ Midline/ Vertical Shift _____

Equation_____