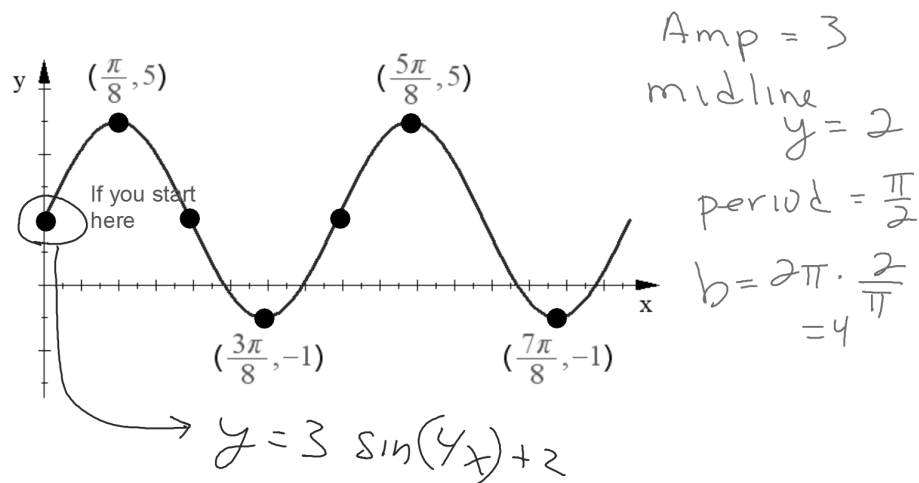
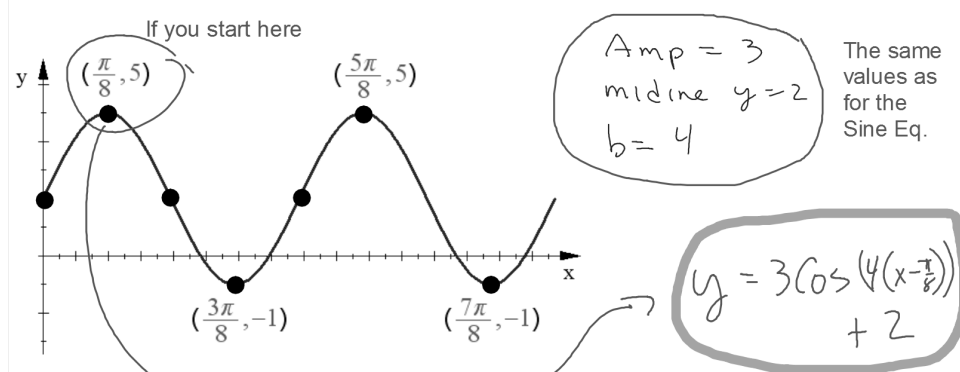


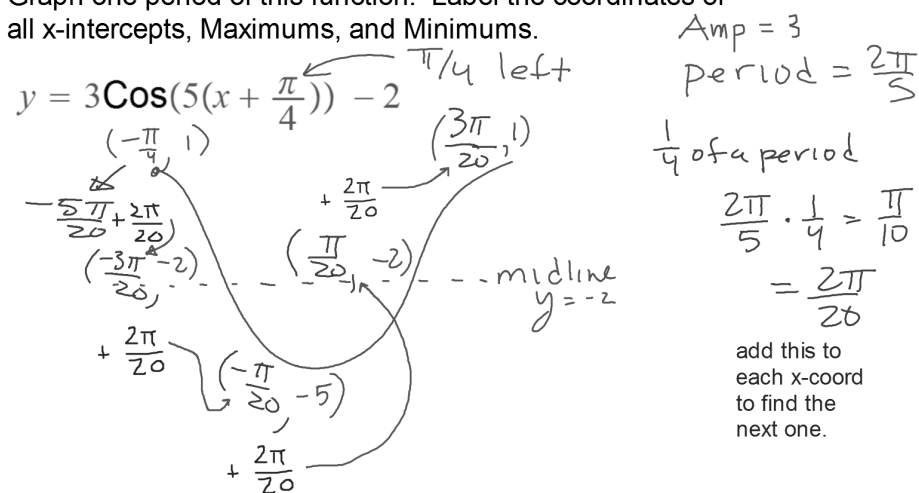
Write the equation of this graph as a Sine Function:



Write the equation of this graph as a Cosine Function:



Graph one period of this function. Label the coordinates of all x-intercepts, Maximums, and Minimums.



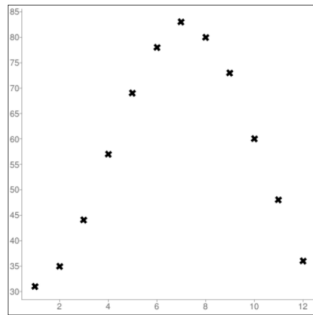
You can now finish Hwk #34.

Practice Sheet Sec 13-7

Detroit, Michigan

Make a scatter plot on the graphing calculator of this data.

L_1	L_2
Month	Average High Temp $^{\circ}F$
Jan $\rightarrow$ 1	31
Feb $\rightarrow$ 2	35
March $\rightarrow$ 3	44
April $\rightarrow$ 4	57
May $\rightarrow$ 5	69
June $\rightarrow$ 6	78
July $\rightarrow$ 7	83
Aug $\rightarrow$ 8	80
Sept $\rightarrow$ 9	73
Oct $\rightarrow$ 10	60
Nov $\rightarrow$ 11	48
Dec $\rightarrow$ 12	36



$$\text{Amp } \frac{83-31}{2} = 26$$

$$\text{mid line } \frac{83+31}{2} y = 57$$

$$\text{period} = 12$$

$$b = \frac{2\pi}{12} = \frac{\pi}{6}$$

$$\text{phase shift } 1\pi$$

This data appears to create an upside down Cosine graph.

$$y = -26 \cos\left(\frac{\pi}{6}(x-1)\right) + 57$$