

Supp Alg 14.2 Period, Amplitudes and Shifts

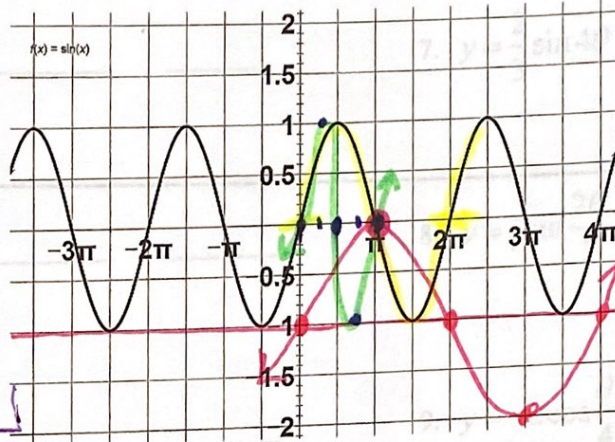
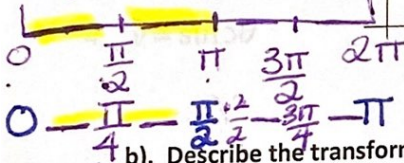
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Use a graphing calculator to complete the following.

1. Sketch the graphs of $y = \sin 2\theta$, $y = \sin 0.5\theta$ using different colors and label the graph with the equation.

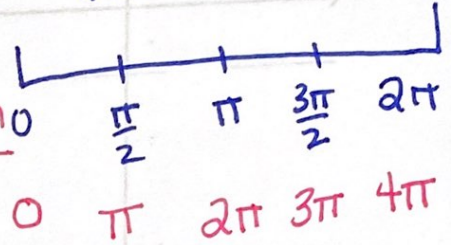
$\sin b\theta$
 ↑
 Period $\div b$
 = New period.

$$\frac{2\pi}{2} = \pi$$



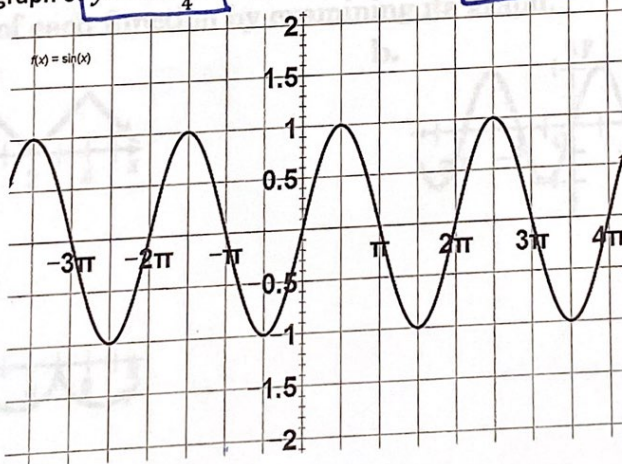
$$y = \sin \frac{1}{2}\theta - 1$$

$$\frac{2\pi}{(\frac{1}{2})} = 4\pi$$



- b). Describe the transformations that occurred.

2. a). Sketch the graph of $y = \sin \frac{1}{4}\theta$ using a different color. $y = \sin 4\theta$ using a different color.



- b). Describe the transformation that occurred.