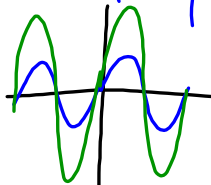


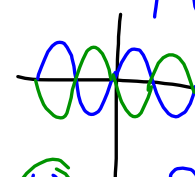
5.1 Graphing Sine & Cosine Functions (Stretches)

Use your knowledge of $f(x) = \sin(x)$ & $g(x) = \cos(x)$...

1) How would $y = 2 \sin x$ look? Check by graphing.

Amp = 2 Max = 2 Min = -2 VS by 2 

2) How would $y = -\sin x$ look? Check by graphing.

Reflection over x-axis 

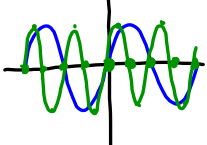
3) What is the amplitude of $y = 10 \cos x$?

Amp = 10

4) What are the max & min values of $y = \frac{1}{2} \sin x$?

Max: $1(\frac{1}{2}) = \frac{1}{2}$ Min: $-1(\frac{1}{2}) = -\frac{1}{2}$

1) Predict $y = \sin(2x)$. Check by graphing.

H.S. by $\frac{1}{2}$ ~~~~ period = $\frac{1}{2}(2\pi) = \pi$

2) Predict $y = \sin\left(\frac{1}{3}x\right)$. Check by graphing.

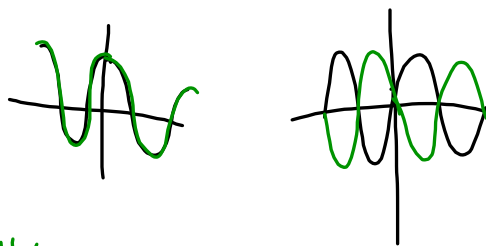
H.S. by 3 period = $3(2\pi) = 6\pi$

3) What is the period of $y = \cos\left(\frac{1}{2}x\right)$?

H.S. by 2 per = $2(2\pi) = 4\pi$

4) What does $y = \cos(-x)$ or $y = \sin(-x)$ look like?

reflection over y-axis



pg. 233-237 #4-8, 11, 13 (music), 15, 19, 20