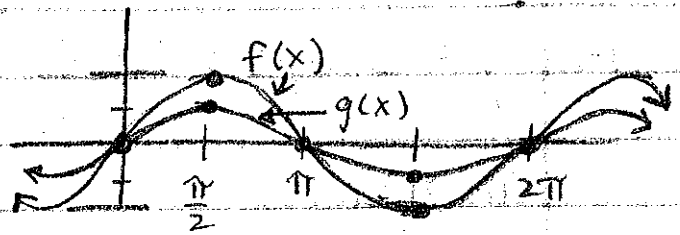


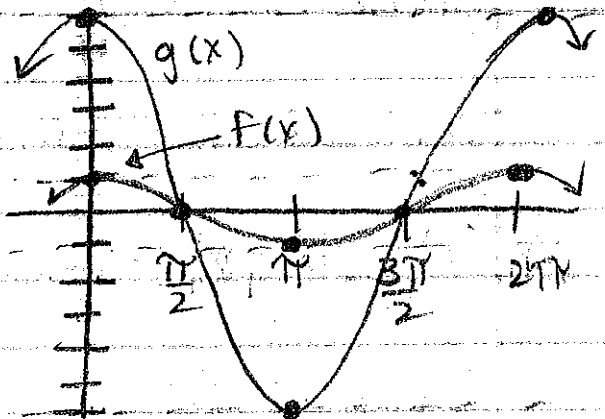
HW #31 p. 264

1. $f(x) = \sin x$
 $g(x) = \frac{1}{2} \sin x$



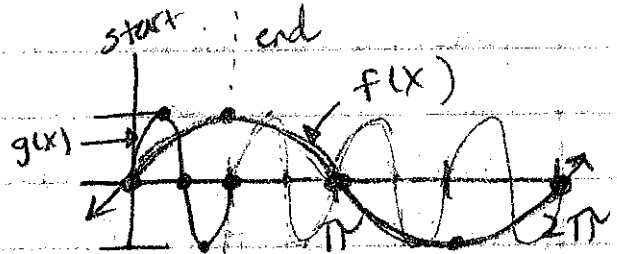
Compressed vertically $|A|$ of $g(x)$ is $\frac{1}{2}$

3. $f(x) = \cos(x)$
 $g(x) = 6 \cos(x)$



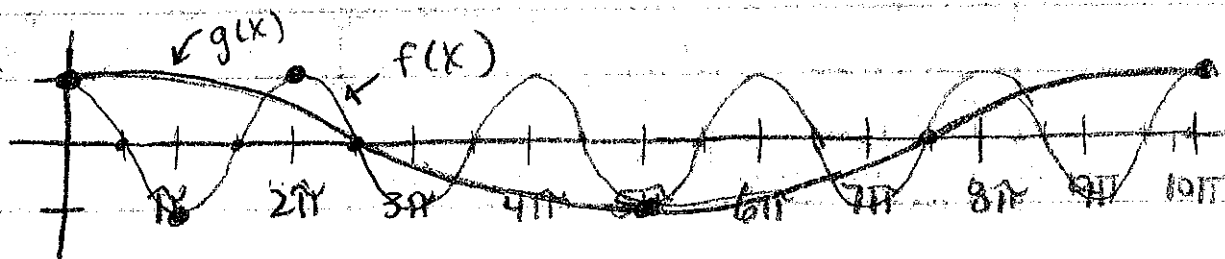
Stretched vertically
 $|A|$ of $g(x)$ is 6

5. $f(x) = \sin(x)$
 $g(x) = \sin(4x)$



Compressed horizontally period of $g(x) = \frac{\pi}{2}$

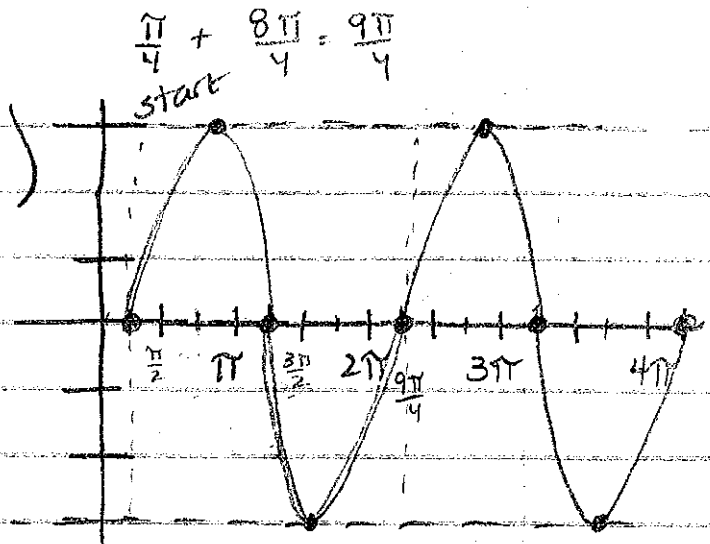
7. $f(x) = \cos(x)$
 $g(x) = \cos\left(\frac{1}{5}x\right)$



14. $y = 3 \sin \left(x - \frac{\pi}{4} \right)$

amplitude 3
 period 2π
 frequency $\frac{1}{2\pi}$
 phase shift $\frac{\pi}{4}$

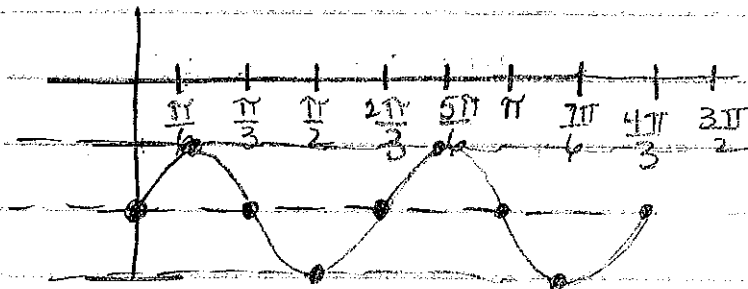
vertical shift 0



17. $y = \sin 3x - 2$

amplitude 1
 period $\frac{2\pi}{3}$
 frequency $\frac{3}{2\pi}$
 phase shift 0

vertical shift -2 (midline $y = -2$)



18. $y = \cos \left(x - \frac{3\pi}{2} \right) - 1$

amplitude 1
 period 2π
 frequency $\frac{1}{2\pi}$
 phase shift $\frac{3\pi}{2}$

vertical shift -1 (midline $y = -1$)

