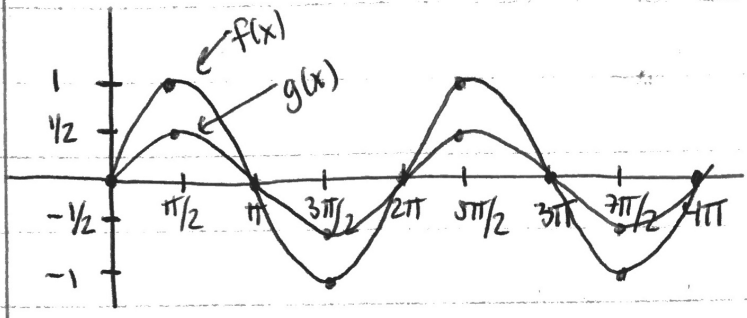


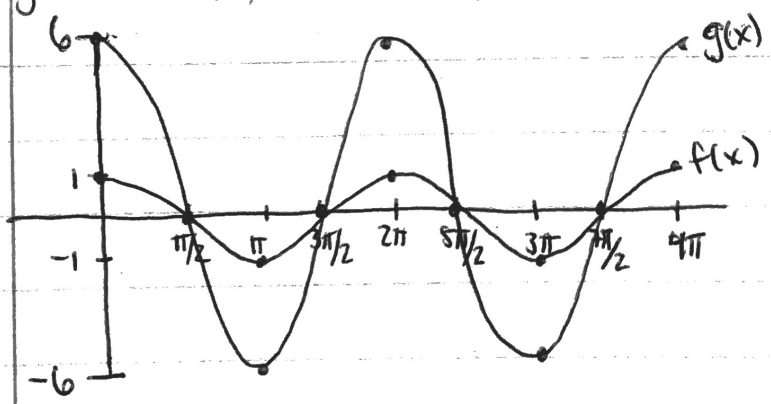
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1-7 odd, 14, 17, 18

1. $f(x) = \sin(x)$
 $g(x) = \frac{1}{2} \sin(x)$ (compressed)
 $g(x)$ will be vertically shrunk from $f(x)$ by a factor of $\frac{1}{2}$. $A = \frac{1}{2}$.

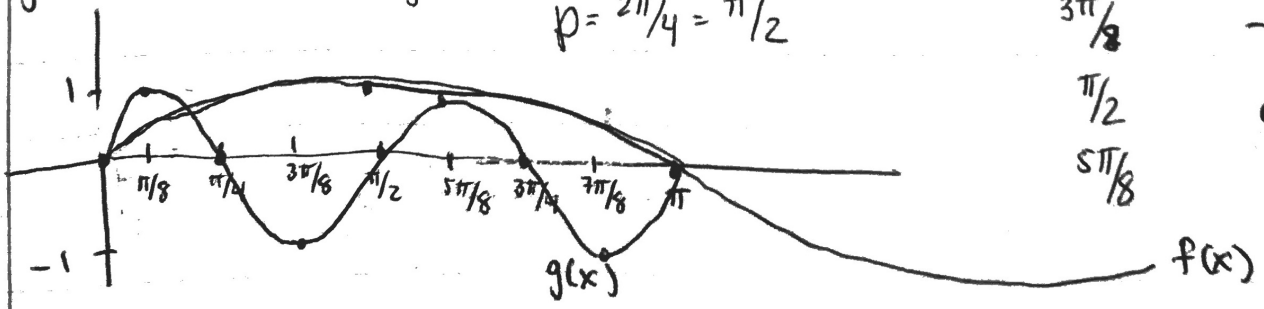


3. $f(x) = \cos(x)$
 $g(x) = 6 \cos(x)$
 $g(x)$ will be vertically stretched from $f(x)$ by a factor of 6. $A = 6$.



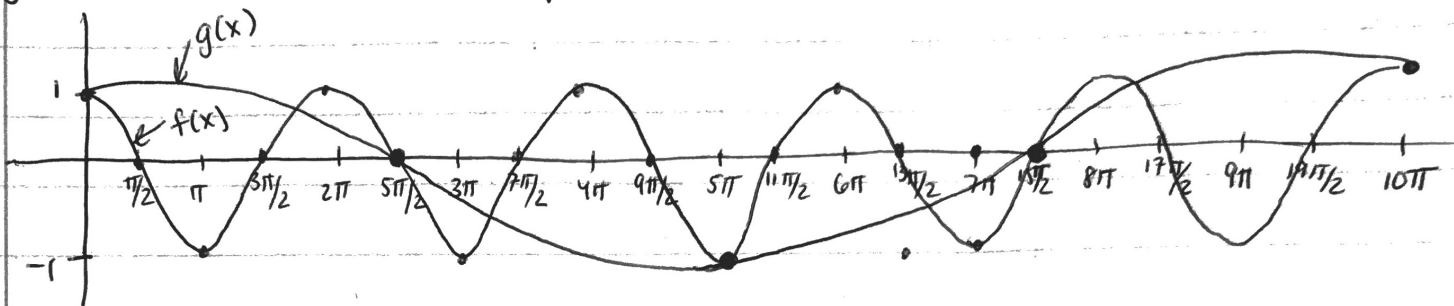
5. $f(x) = \sin(x)$
 $g(x) = \sin(4x)$
 $g(x)$ will be horizontally compressed by a factor of 4.
 $p = \frac{2\pi}{4} = \frac{\pi}{2}$

x	sin(4x)
$\frac{\pi}{8}$	1
$\frac{\pi}{4}$	0
$\frac{3\pi}{8}$	-1
$\frac{\pi}{2}$	0
$\frac{5\pi}{8}$	1

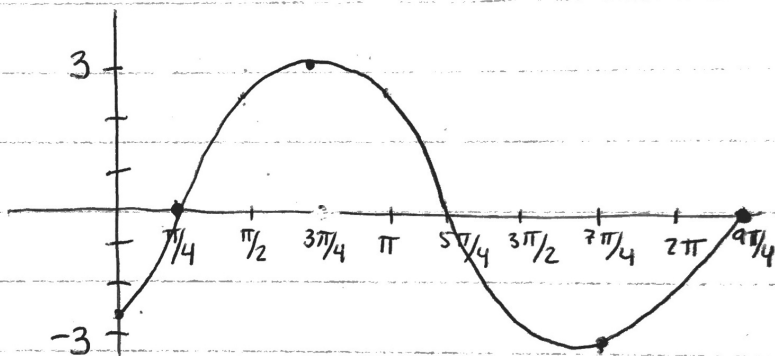


7. $f(x) = \cos(x)$
 $g(x) = \cos(\frac{1}{5}x)$

$g(x)$ will be horizontally stretched by a factor of $\frac{1}{5}$.
 $p = \frac{2\pi}{1/5} = 2\pi \cdot 5 = 10\pi$



14. $y = 3 \sin(x - \pi/4)$
 period amplitude: 3
 period: 2π
 frequency: $\frac{1}{2\pi}$
 phase shift: $\pi/4$
 vertical shift: none



x	$3\sin(x - \pi/4)$
$\pi/4$	0
$\pi/2$	$\frac{3\sqrt{2}}{2}$
$3\pi/4$	3
π	$\frac{3\sqrt{2}}{2}$
$5\pi/4$	0

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

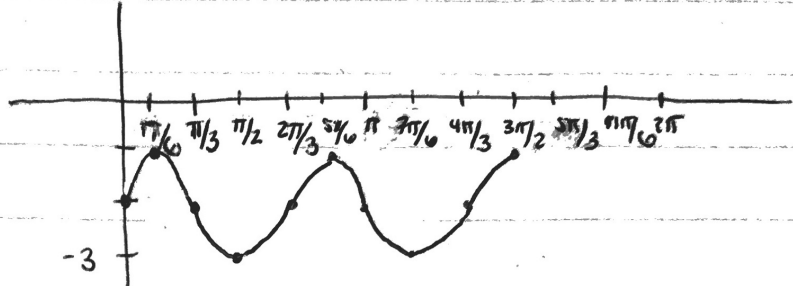
amplitude: 1

period: $\frac{2\pi}{3}$

frequency: $\frac{3}{2\pi}$

phase shift: none

vertical shift: -2



x	$\sin(3x) - 2$	x	$\sin(3x) - 2$
$\pi/2$	-3	$\pi/6$	-1
π	-2	$\pi/3$	-2
$3\pi/2$	-3	$5\pi/6$	-1
2π	-2	$7\pi/6$	-3
$5\pi/2$	-3		
0	-2		
$2\pi/3$	-2		
$\pi/3$	-2		
$4\pi/3$	-2		

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

amplitude: 1

period: 2π

frequency: $\frac{1}{2\pi}$

phase shift: $\frac{3\pi}{2}$

vertical shift: -1

x	$\cos(x - \frac{3\pi}{2}) - 1$
0	-1
$\pi/2$	-2
π	-1
$3\pi/2$	0
2π	-1

