Revew for Quiz #7.1
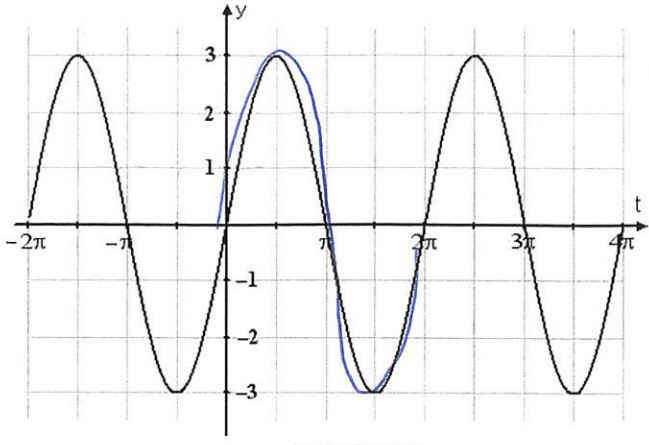
Key

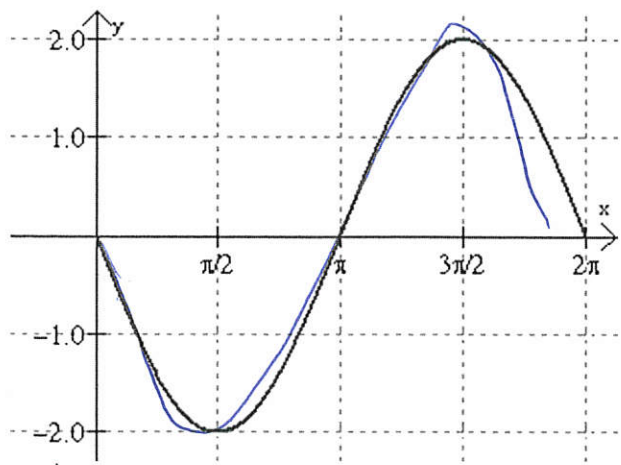1. State an equation of each function shown.

amp=3
freq = 1
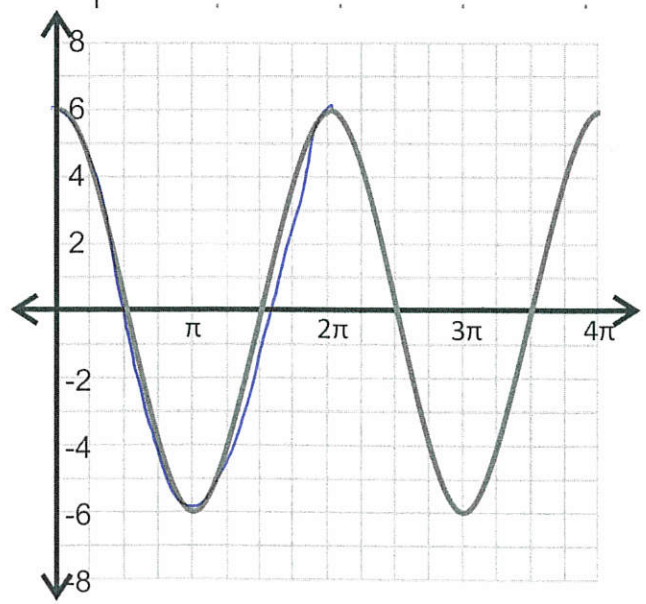
$y = 3\sin x$
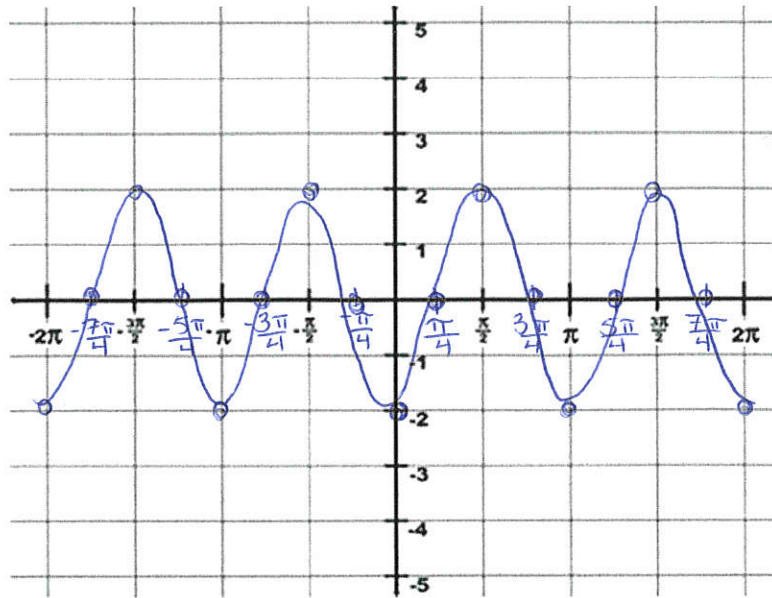
sine function graph

amp=2
freq = 1

$y = -\sin 2x$

amp=6
freq = 1

$y = 6\cos x$

2. Sketch the graph of $y = -2\cos 2x$ over the interval $-2\pi \le x \le 2\pi$
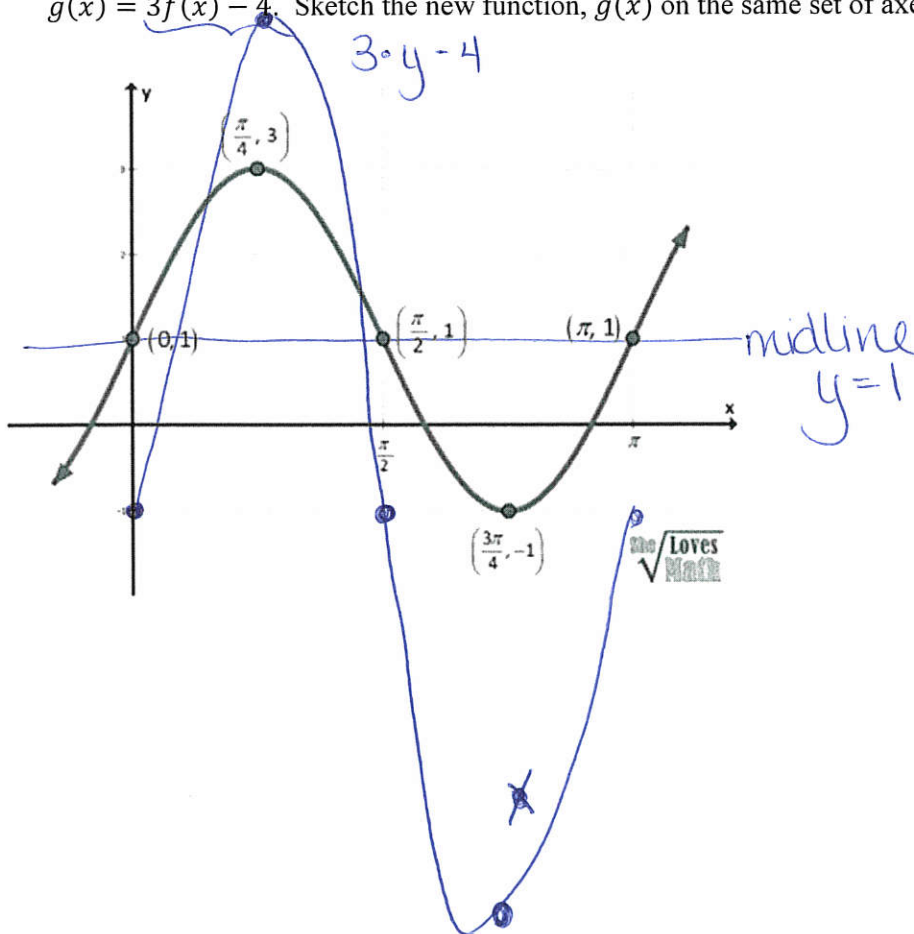
amp = 2
freq = 2
per = $\frac{2\pi}{2} = \pi$

interval = $\frac{\pi}{4}$

3. What is the amplitude, period and frequency of the graph of the equation $y = -3\cos\frac{1}{4}x$?

amp = 3

freq = $\frac{1}{4}$

per = $\frac{2\pi}{\frac{1}{4}} = 2\pi \cdot \frac{4}{1} = 8\pi$

4. A function, $y = f(x)$ is represented by the graph shown. The function is transformed to create a new function $g(x) = 3f(x) - 4$. Sketch the new function, $g(x)$ on the same set of axes.

$3 \cdot y - 4$

midline
$y = 1$

$f(x)$	$g(x)$
$(0,1)$	$(0,-1)$
$(\frac{\pi}{4},3)$	$(\frac{\pi}{4},5)$
$(\frac{\pi}{2},1)$	$(\frac{\pi}{2},-1)$
$(\frac{3\pi}{4},-1)$	$(\frac{3\pi}{4},-7)$
$(\pi,1)$	$(\pi,-1)$