Math 180 – Section 5.6 Name_____

Find the phase shift of the function.

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

2) $y = -2\sin\left(4x - \frac{\pi}{2}\right)$

3) $y = 4\cos\left(\frac{1}{4}x + \frac{\pi}{4}\right)$

Find the amplitude, period, and phase shift of the sinusoidal funtion.

4) $y = -\frac{3}{4}\sin\left(\frac{1}{4}x + \frac{\pi}{2}\right)$

Graph the function. Show at least one period.

5) $y = 2\cos\left(3x + \frac{\pi}{2}\right)$

Graph the sinusoidal function over one complete period.

6) $y = 3\sin\left(\frac{1}{2}x + \frac{\pi}{4}\right)$

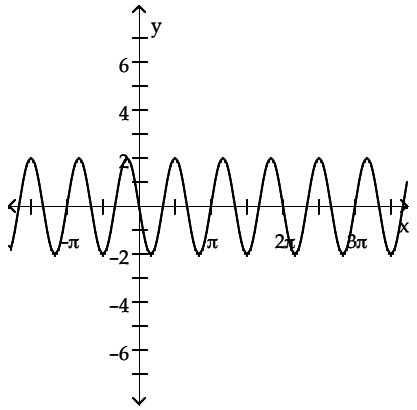
Write the equation of a sine function with the given characteristics.

7) Amplitude: 4
Period: 6π
Phase Shift: $\frac{\pi}{6}$

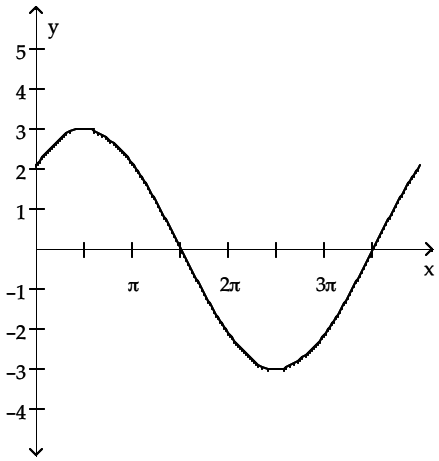
8) Amplitude: 4
Period: π
Phase Shift: -2

Answer Key
Testname: SECTION5–6.TST

1) $\pi/2$ units to the right
2) $\pi/8$ units to the right
3) π units to the left
4) amplitude = $\frac{3}{4}$; period = 8π; phase shift = -2π
5)



6)



7) $y = 4 \sin\left(\frac{1}{3}x - \frac{1}{18}\pi\right)$
8) $y = 4 \sin(2x + 4)$