

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 function.

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

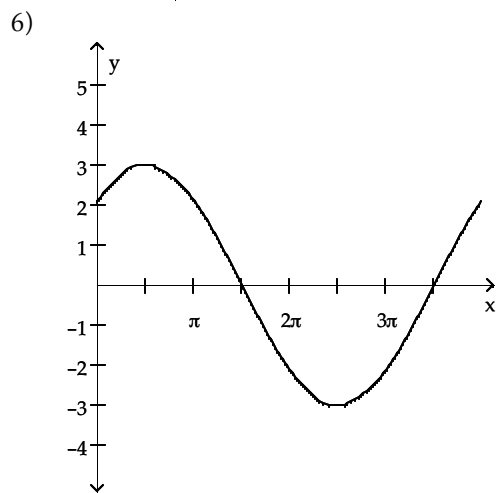
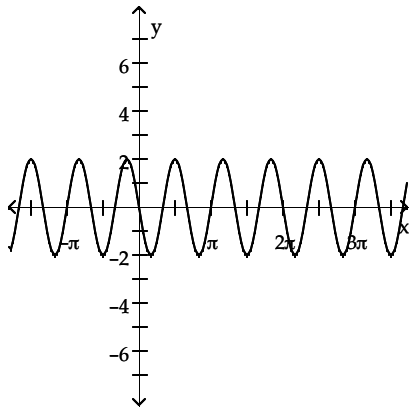
Period: π

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)



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

8) $y = 4 \sin (2x + 4)$