

1. Write the equation of the Sine Function using the description of the transformations applied to the parent function.

Transformations: Upside-down, Period =  $\frac{2\pi}{7}$ , shift  $\frac{\pi}{4}$  to the left & 10 units up.

EQ:

2. Find the period, amplitude, phase shift, and equation of the midline for this function:

$$y = 11\sin(12(x - \frac{5\pi}{4})) + 13$$

Period:

Amplitude:

Phase Shift:

Eq of Midline:

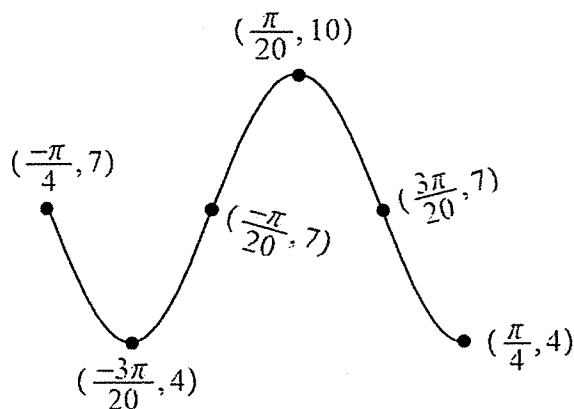
For 3 and 4, graph one period of each function. Label the coordinates of the maximums, minimums, and x-intercepts.

3.  $y = -5\sin(2(x + \frac{\pi}{2})) + 8$

4.  $y = 8\sin(3(x - \frac{\pi}{6})) - 5$

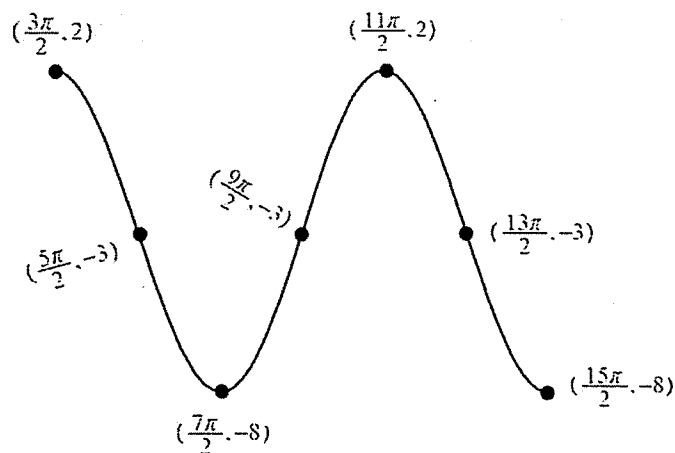
For 5 and 6. Write a Sin equation for each graph.

5.



EQ:

6.



EQ: