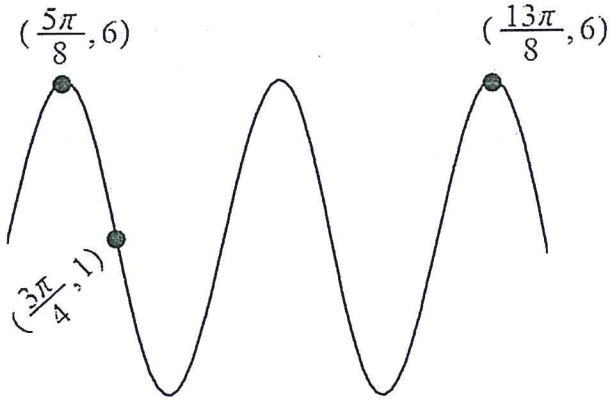
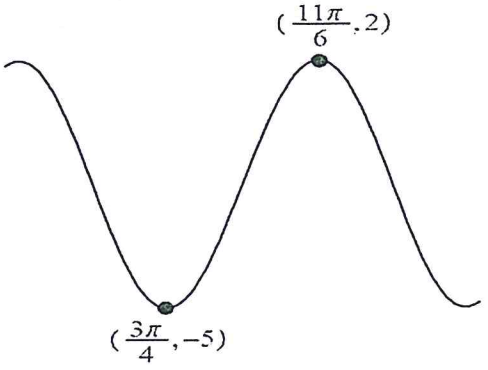
Bellwork Hon Alg 2 Tuesday, May 16, 2017

Fnd the Period, Amplitude, and Equation of the Midline for each Sine Function.

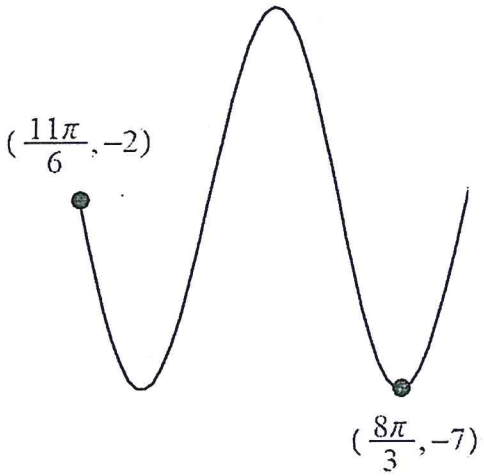
1.



2.



3.



4. Sketch one period of the given sine function. Label the coordinates of all the x-intercepts, Maximums, and Minimums.

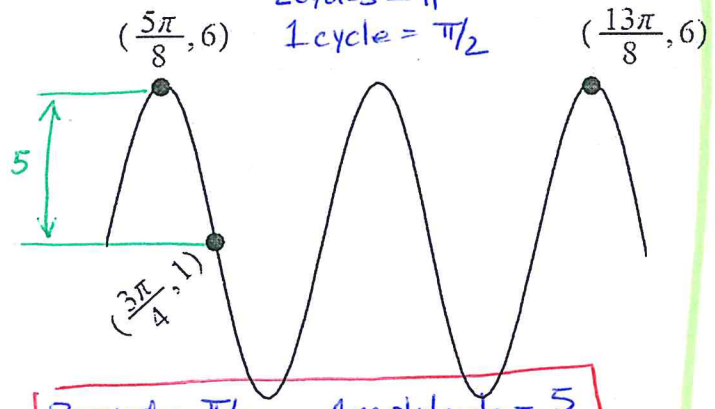
$y = -3\text{Sin}5x$

Answers

Bellwork Hon Alg 2 Tuesday, May 16, 2017

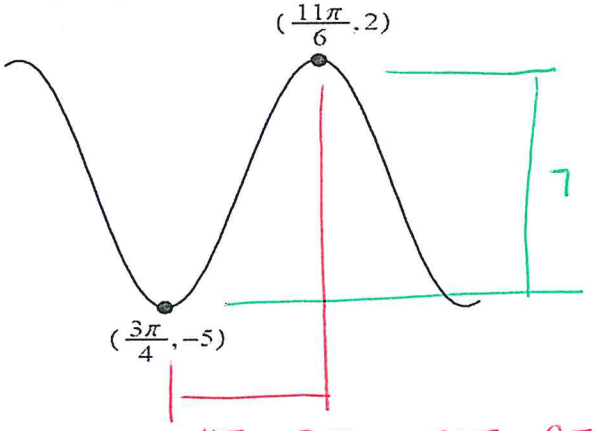
Fnd the Period, Amplitude, and Equation of the Midline for each Sine Function.

1.



Period = π/2 Amplitude = 5
midline: y = 1

2.



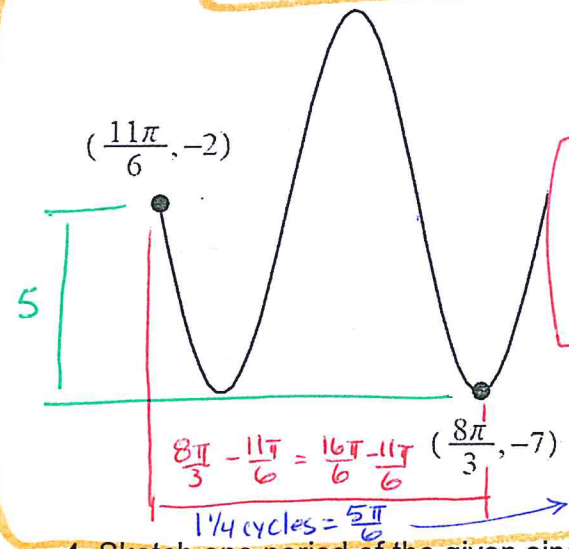
$\frac{11\pi}{6} - \frac{3\pi}{4} = \frac{22\pi}{12} - \frac{9\pi}{12}$

1/2 cycle = $\frac{13\pi}{12}$

1 cycle = $\frac{13\pi}{6}$

period = $\frac{13\pi}{6}$
Amplitude = $\frac{7}{2}$
midline: $y = -3/2$

3.



Period = $\frac{2\pi}{3}$
Amplitud = 5
midline: y = -2

$\frac{8\pi}{3} - \frac{11\pi}{6} = \frac{16\pi}{6} - \frac{11\pi}{6}$

1 1/4 cycles = $\frac{5\pi}{6}$

1 cycle = $\frac{\frac{5\pi}{6}}{5/4} = \frac{5\pi}{6} \cdot \frac{4}{5} = \frac{4\pi}{6} = \frac{2\pi}{3}$

4. Sketch one period of the given sine function. Label the coordinates of all the x-intercepts, Maximums, and Minimums.

$y = -3\sin 5x$

upside down
Amplitude = 3
period = $\frac{2\pi}{5}$