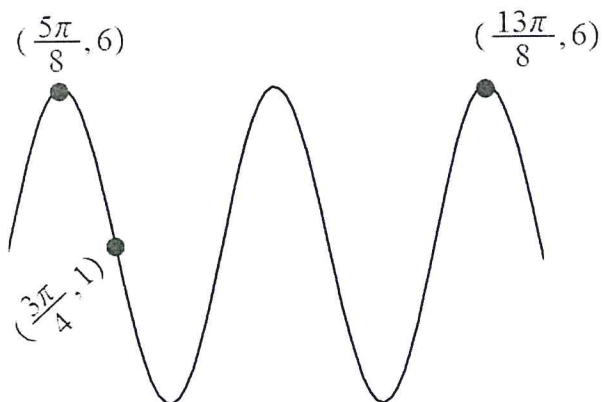
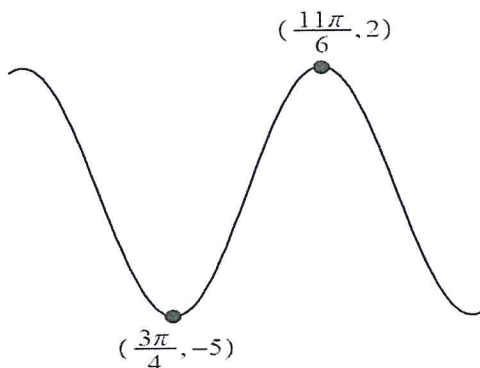


Find the Period, Amplitude, and Equation of the Midline for each Sine Function.

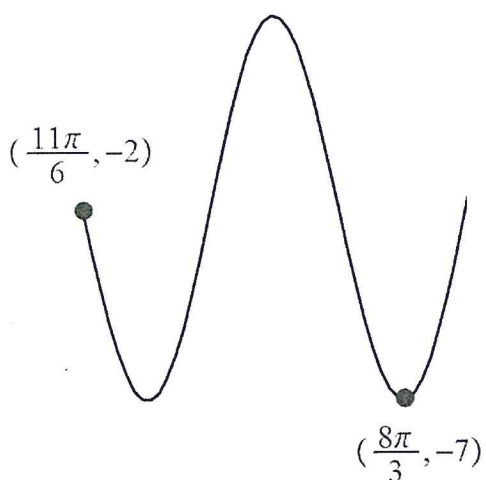
1.



2.

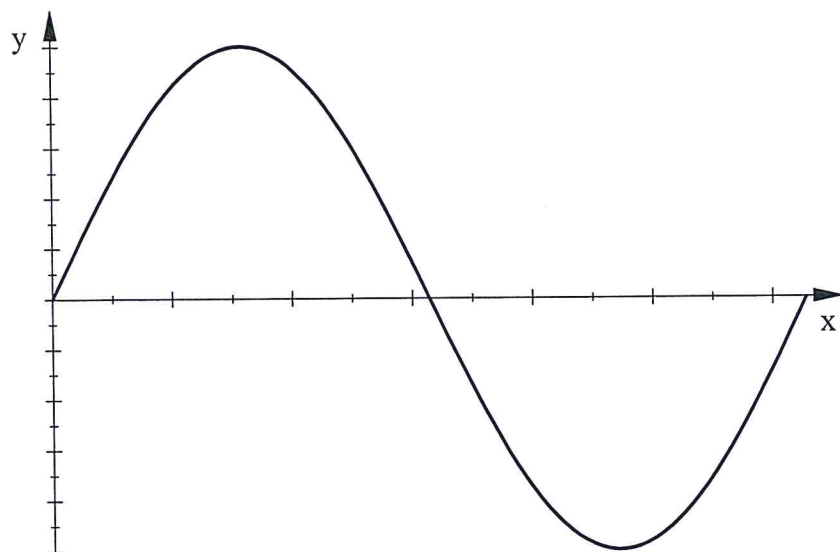


3.



4. In the equation $y = a \sin bx$ $a = \text{Amplitude}$ and $\text{Period} = \frac{2\pi}{b}$

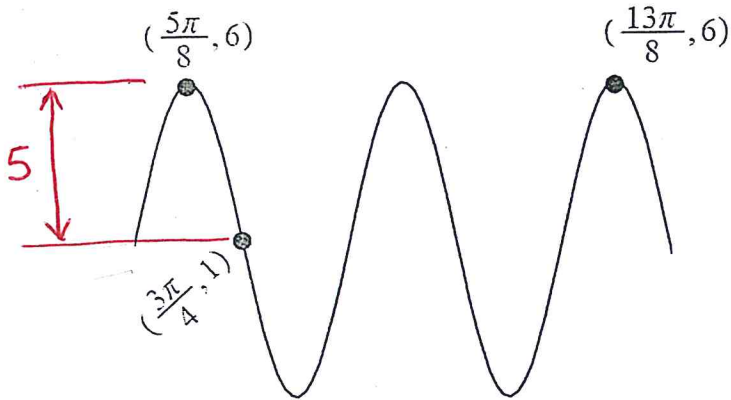
State the coordinates of all maximums, minimums, and x-intercepts for the period shown of the given equation: $y = 4 \sin 10x$



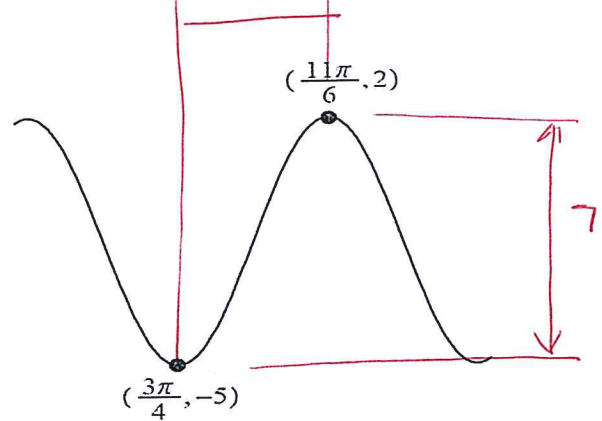
Answers

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

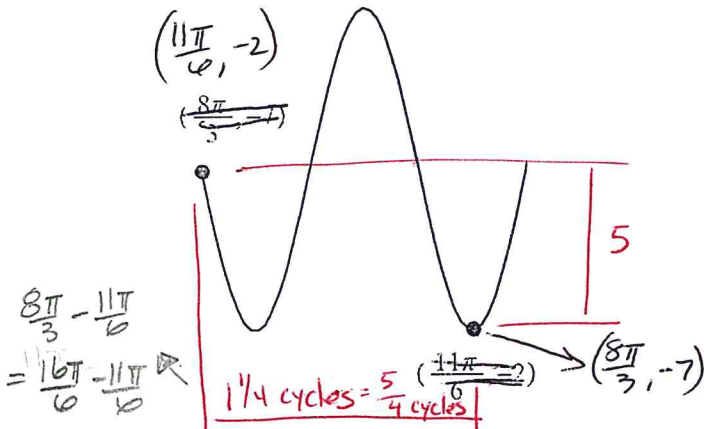
1. $2 \text{ cycles} = \frac{13\pi}{8} - \frac{5\pi}{8} = \frac{8\pi}{8} = \pi$



2. $\frac{1}{2} \text{ cycle} = \frac{11\pi}{6} - \frac{3\pi}{4} = \frac{22\pi}{12} - \frac{9\pi}{12} = \frac{13\pi}{12}$



3.



1. Amplitude = 5 Period = $\frac{\pi}{2}$
midline: $y = 1$

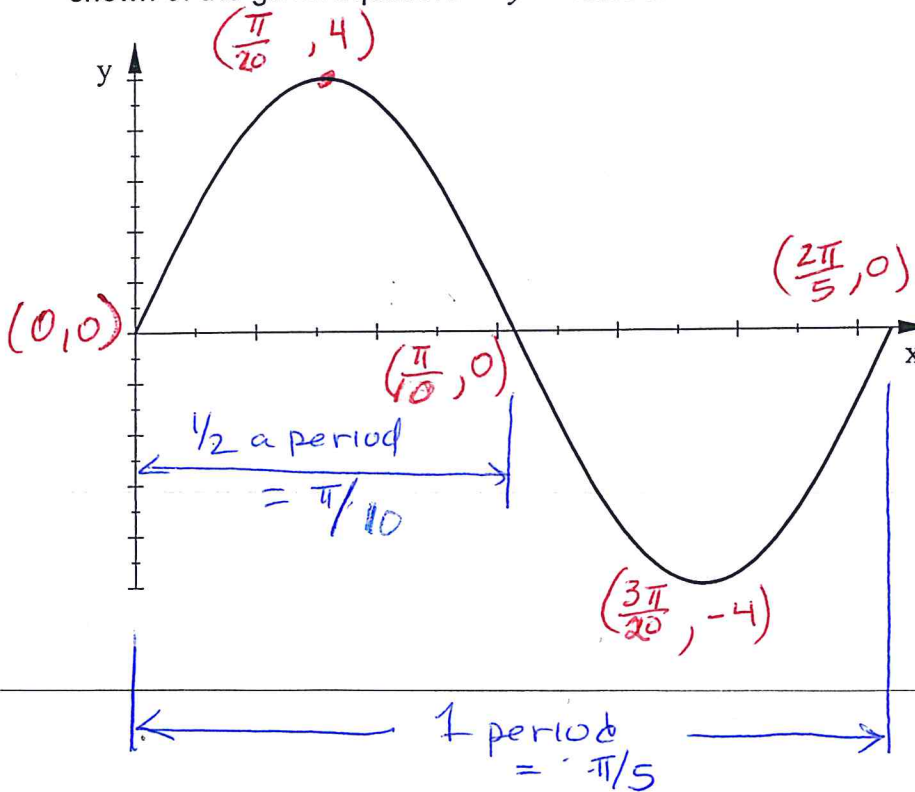
2. Amplitude = $\frac{7}{2}$ Period = $\frac{26\pi}{12}$
midline: $y = \frac{2+5}{2} = -\frac{3}{2}$ $= \frac{13\pi}{6}$

3. Amplitude = 5 period = $\frac{5\pi}{6}$
midline: $y = -7$ $\frac{5\pi}{6} = \frac{5\pi \cdot 4}{6 \cdot 4} = \frac{2\pi}{3}$

4. In the equation $y = a \sin bx$

a = Amplitude and Period = $\frac{2\pi}{b}$

State the coordinates of all maximums, minimums, and x-intercepts for the period shown of the given equation: $y = 4 \sin 10x$



Amplitude = 4
period = $\frac{2\pi}{10} = \frac{\pi}{5}$

midline
amplitude