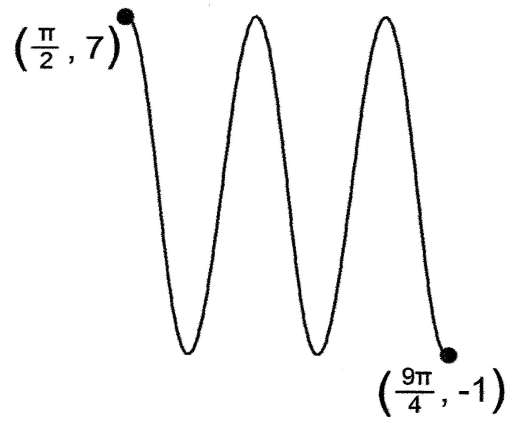
Bellwork Alg 2 Monday, April 20, 2020

Find the Period (as a fraction in reduced form in terms of π), Equation of the Midline, and Amplitude.

1.

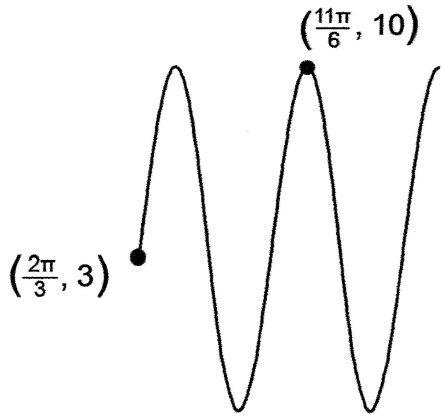


Amplitude:

Eq. of Midline:

Period:

2.



Amplitude:

Eq. of Midline:

Period:

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ANSWERS

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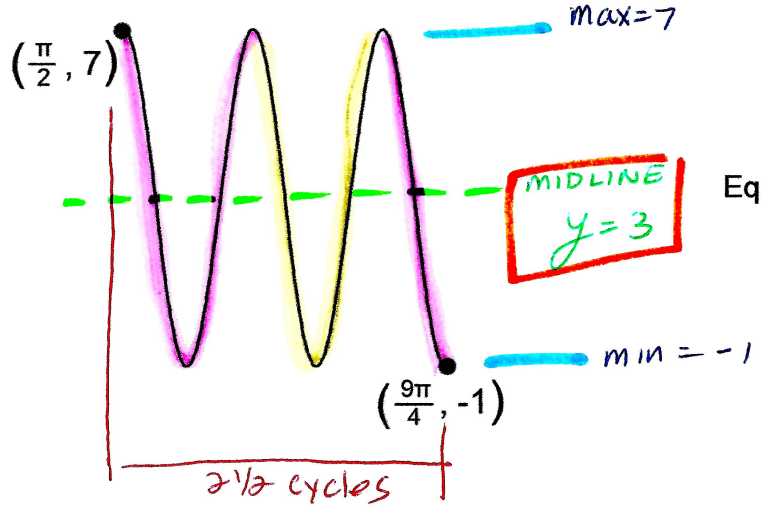
1.



Amplitude: $\frac{\text{max}-\text{min}}{2} = \frac{7-(-1)}{2} = \frac{8}{2} = 4$

Amplitude = 4

Eq. of Midline: $y = \frac{\text{max}+\text{min}}{2} = \frac{7+(-1)}{2}$

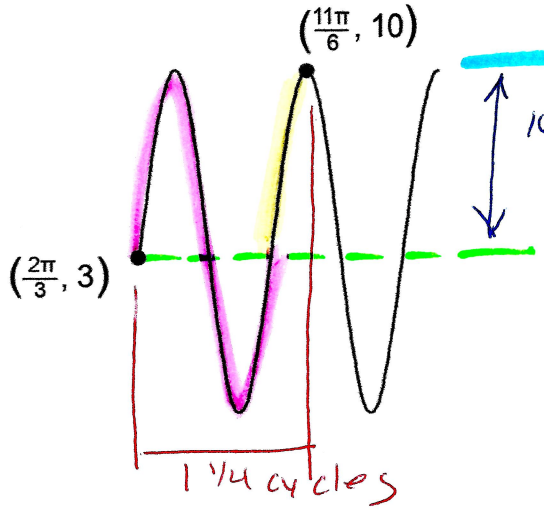
$= \frac{6}{2} = 3$

Period:

$= \frac{\text{TOTAL WIDTH}}{\#\text{ cycles}} = \frac{\frac{9\pi}{4} - \frac{\pi}{2}}{2\,1/2} = \frac{\frac{9\pi}{4} - \frac{2\pi}{4}}{5/2} = \frac{\frac{7\pi}{4}}{5/2} = \frac{7\pi}{4}, \frac{2}{5}$

period = $\frac{7\pi}{10}$

2.



Amplitude:

Amplitude = 7

Eq. of Midline:

midline: $y = 3$

middle of the graph is $(\frac{2\pi}{3}, 3)$

Period:

$\frac{\text{TOTAL WIDTH}}{\#\text{ cycles}} = \frac{\frac{11\pi}{6} - \frac{2\pi}{3}}{1\,1/4} = \frac{\frac{11\pi}{6} - \frac{4\pi}{6}}{5/4} = \frac{\frac{7\pi}{6}}{\frac{5}{4}} = \frac{7\pi}{6}, \frac{4}{5}$

period = $\frac{14\pi}{15}$