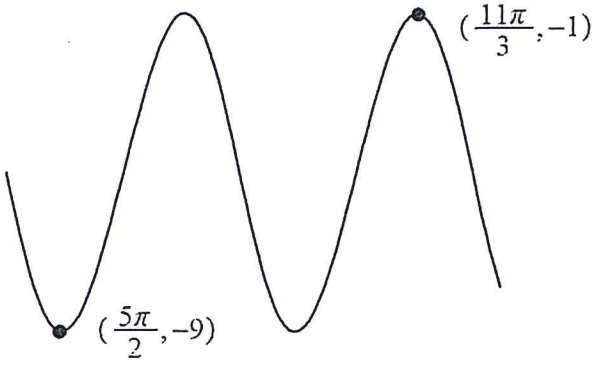
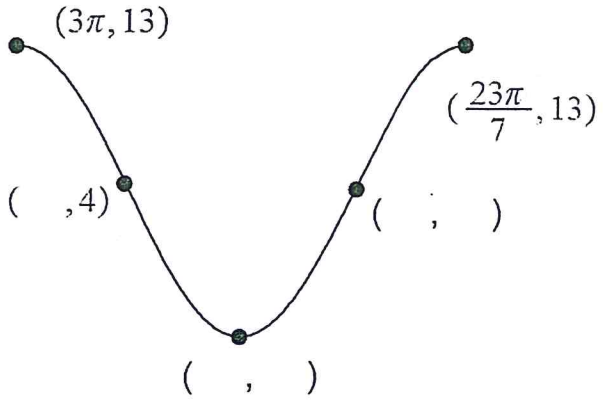
Algebra 2 Bellwork Thursday, May 19, 2016

1. Consider this a Sine graph. Find the Period, Amplitude, Equation of the Midline, and the Phase Shift.

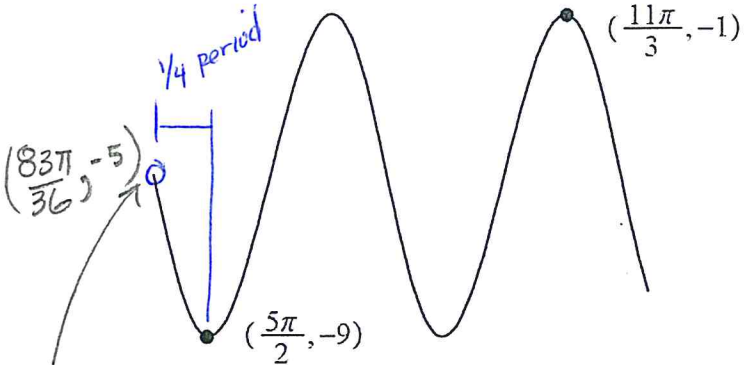


2. Find the missing coordinates.



Algebra 2 Bellwork Thursday, May 19, 2016 Answers

1. Consider this a Sine graph. Find the Period, Amplitude, Equation of the Midline, and the Phase Shift.



$\frac{11\pi}{3} - \frac{5\pi}{2} = \frac{22\pi}{6} - \frac{15\pi}{6} = \frac{7\pi}{6}$

Period $= \frac{\frac{7\pi}{6}}{3/2} = \frac{7\pi}{6} \cdot \frac{2}{3} = \frac{7\pi}{9}$

Amplitude $= \frac{-1 - -9}{2} = \frac{8}{2} = 4$

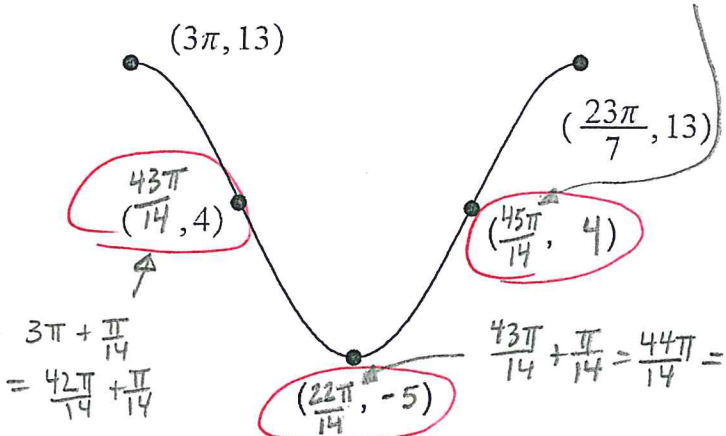
EQ of Midline $y = \frac{-1 + -9}{2} \rightarrow y = -5$

$\frac{1}{4}$TH Period $= \frac{7\pi}{9} \cdot \frac{1}{4} = \frac{7\pi}{36}$

STARTING PT: $5\pi/2 - 7\pi/36 = \frac{90\pi}{36} - \frac{7\pi}{36} = 83\pi/36$

PHASE SHIFT: $\frac{83\pi}{36}$ RIGHT

2. Find the missing coordinates.



$3\pi + \frac{\pi}{14} = \frac{42\pi}{14} + \frac{\pi}{14}$

$\frac{43\pi}{14} + \frac{\pi}{14} = \frac{44\pi}{14} = \frac{22\pi}{7}$

$\frac{22\pi}{7} + \frac{\pi}{14} = \frac{44\pi}{14} + \frac{\pi}{14} = \frac{45\pi}{14}$

Period $= \frac{23\pi}{7} - 3\pi = \frac{23\pi}{7} - \frac{21\pi}{7} = \frac{2\pi}{7}$

1/4 period $= \frac{2\pi}{7} \cdot \frac{1}{4} = \frac{\pi}{14}$