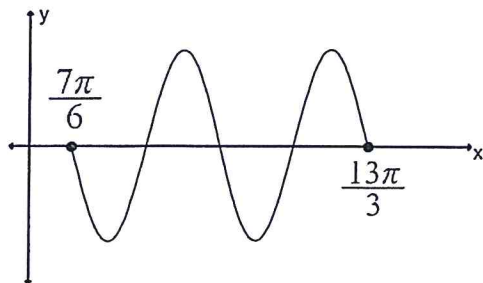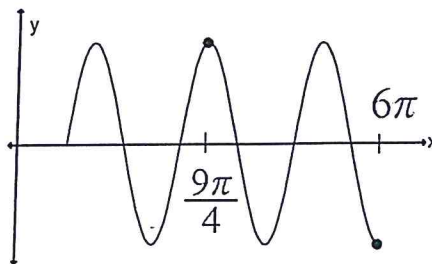# Algebra 2   Bellwork   Wednesday, May 11, 2016

Find the period of each. Leave answer in terms of π. Simplify fractions.
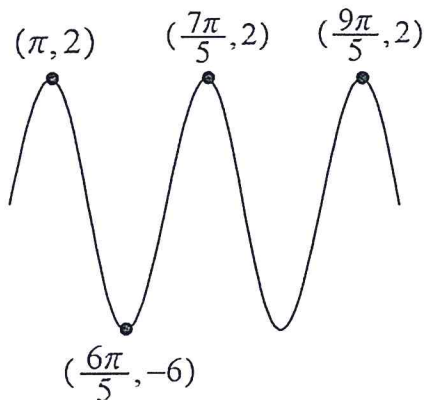
1.

$\dfrac{7\pi}{6}$

$\dfrac{13\pi}{3}$

2.

6π

$\dfrac{9\pi}{4}$

3. Find the Period, Amplitude, and Equation of the Midline. Give period in terms of π. Simplify fractions.

$(\pi, 2)$ $\left(\dfrac{7\pi}{5}, 2\right)$ $\left(\dfrac{9\pi}{5}, 2\right)$

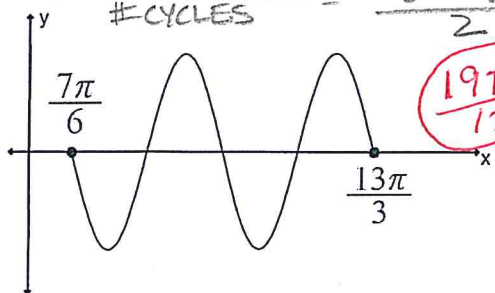$\left(\dfrac{6\pi}{5}, -6\right)$

Period =
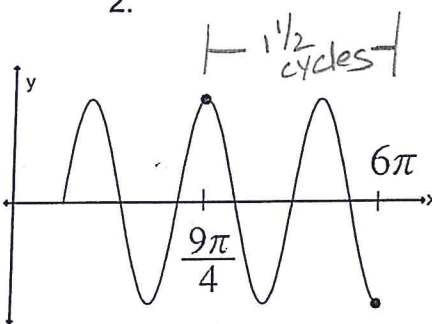
Amplitude =

Eq of Midline:

Algebra 2   Bellwork   Wednesday, May 11, 2016   Answers

Find the period of each. Leave answer in terms of π. Simplify fractions.

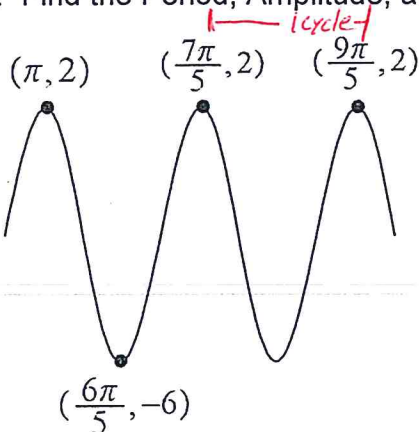1. $\dfrac{\text{TOTAL DISTANCE}}{\#\text{CYCLES}} = \dfrac{\frac{13\pi}{3} - \frac{7\pi}{6}}{2} = \boxed{\dfrac{19\pi}{12}}$

$\dfrac{7\pi}{6}$

$\dfrac{13\pi}{3}$

2. $\vdash 1\frac{1}{2}\text{ cycles} \dashv$

$\dfrac{6\pi - \frac{9\pi}{4}}{3/2} = \dfrac{15\pi}{4}, \dfrac{2}{3} = \boxed{\dfrac{5\pi}{2}}$

6π

$\dfrac{9\pi}{4}$

3. Find the Period, Amplitude, and Equation of the Midline. Give period in terms of π. Simplify fractions.

$\vdash 1\text{ cycle} \dashv$

$(\pi, 2)$ $\left(\dfrac{7\pi}{5}, 2\right)$ $\left(\dfrac{9\pi}{5}, 2\right)$

$\left(\dfrac{6\pi}{5}, -6\right)$

Period = $\dfrac{9\pi}{5} - \dfrac{7\pi}{5} = \boxed{\dfrac{2\pi}{5}}$

Amplitude = $\dfrac{\text{max} - \text{min}}{2} = \dfrac{2 - -6}{2} = \dfrac{8}{2} = \boxed{4}$

Eq of Midline: $\dfrac{\text{max} + \text{min}}{2} = \dfrac{2 + -6}{2} = \dfrac{-4}{2}$

$\boxed{y = -2}$

1