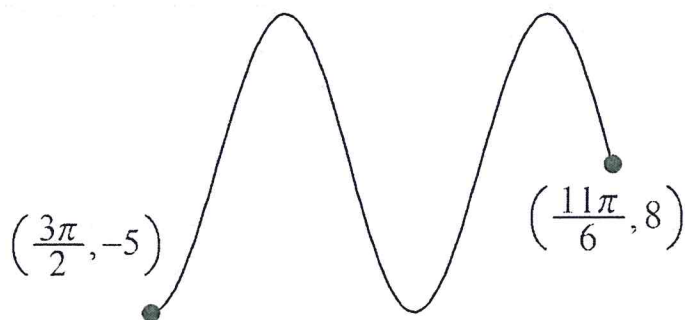
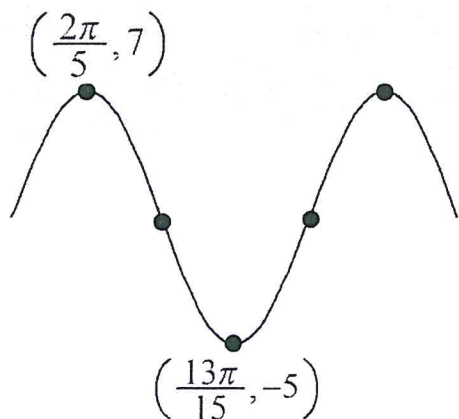


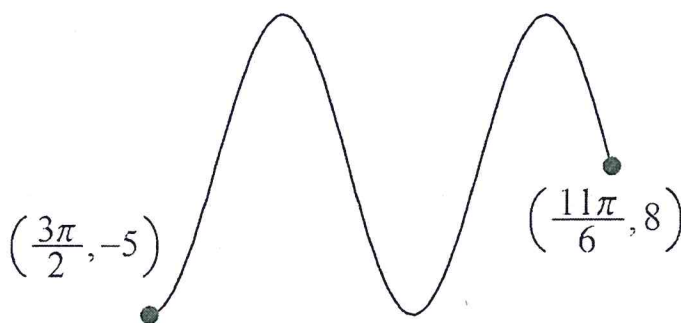
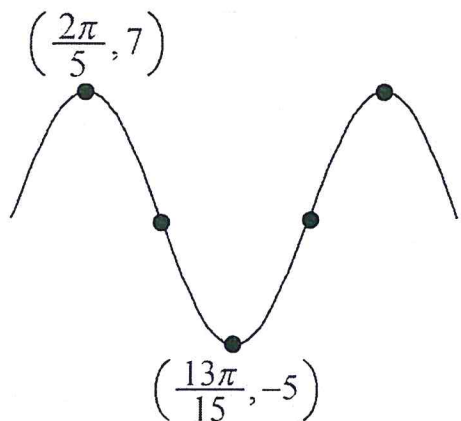
Bellwork Hon Alg 2 Wednesday, May 24, 2017

1. Fill in the missing coordinates and write the equation of this Cosine Function.
2. Write the equation of this Cosine Function.



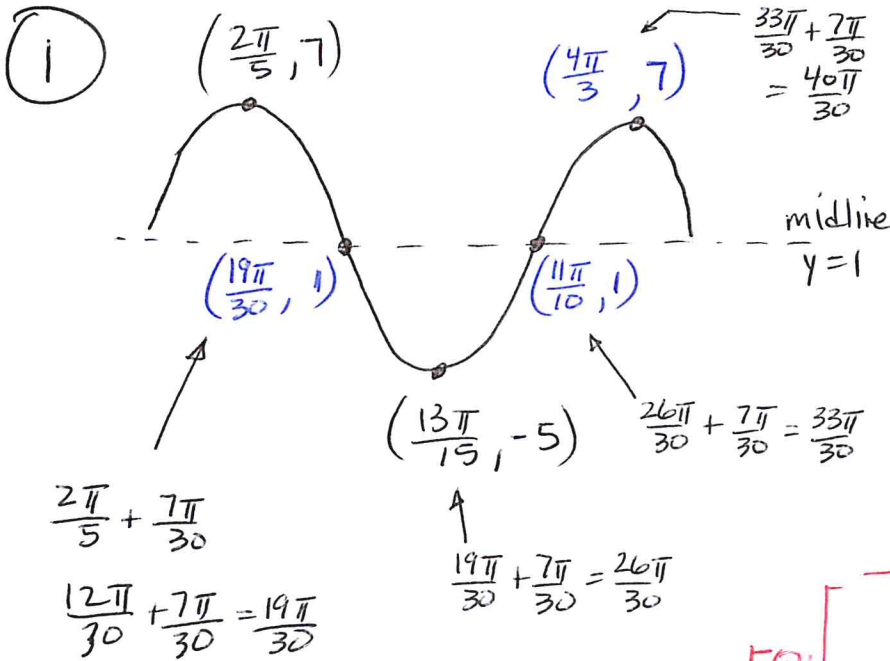
Bellwork Hon Alg 2 Wednesday, May 24, 2017

1. Fill in the missing coordinates and write the equation of this Cosine Function.
2. Write the equation of this Cosine Function.



Hon Alg 2 Bellwork Answers

Wed May 24, 2017



$\frac{1}{2}$ cycle

$$\frac{13\pi}{15} - \frac{2\pi}{5} = \frac{13\pi}{15} - \frac{6\pi}{15} = \frac{7\pi}{15}$$

$$1 \text{ cycle (period)} = \frac{7\pi}{15} \cdot 2 = \frac{14\pi}{15}$$

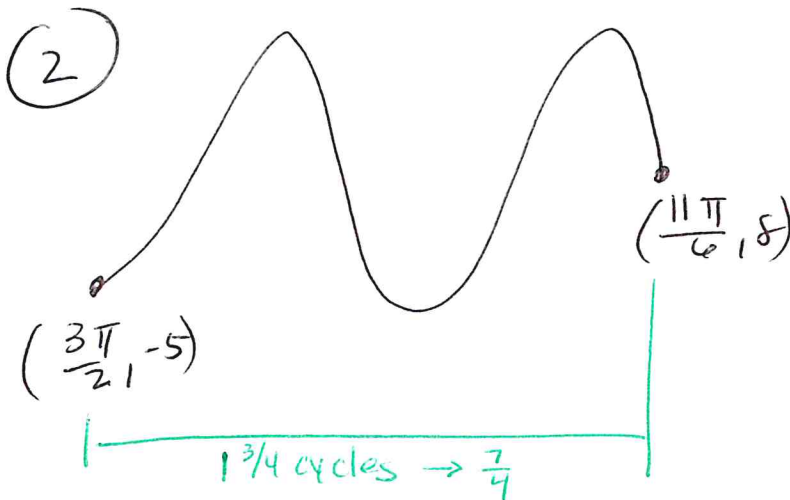
$$b = \frac{2\pi}{\frac{14\pi}{15}} = 2\pi \cdot \frac{15}{14\pi} = \frac{15}{7}$$

$$\frac{1}{4} \pi \text{ cycle} = \frac{14\pi}{15} \cdot \frac{1}{4} = \frac{7\pi}{30}$$

EQ:

if start at $\left(\frac{2\pi}{5}, 7\right)$

$$y = 6 \cos\left(\frac{15}{7}\left(x - \frac{2\pi}{5}\right)\right) + 1$$



Amplitude = 13

midline: $y=8$

START AT $\left(\frac{3\pi}{2}, -5\right)$

$$y = -13 \cos\left(\frac{21}{2}\left(x - \frac{3\pi}{2}\right)\right) + 8$$

$$1\frac{3}{4} \text{ cycles} = \frac{11\pi}{6} - \frac{3\pi}{2} = \frac{11\pi}{6} - \frac{9\pi}{6} = \frac{2\pi}{6} = \frac{\pi}{3}$$

$$1 \text{ cycle (period)} = \frac{\frac{\pi}{3}}{\frac{7}{4}} = \frac{\pi}{3} \cdot \frac{4}{7} = \frac{4\pi}{21}$$

$$b = \frac{2\pi}{\frac{4\pi}{21}} = 2\pi \cdot \frac{21}{4\pi} = \frac{21}{2}$$