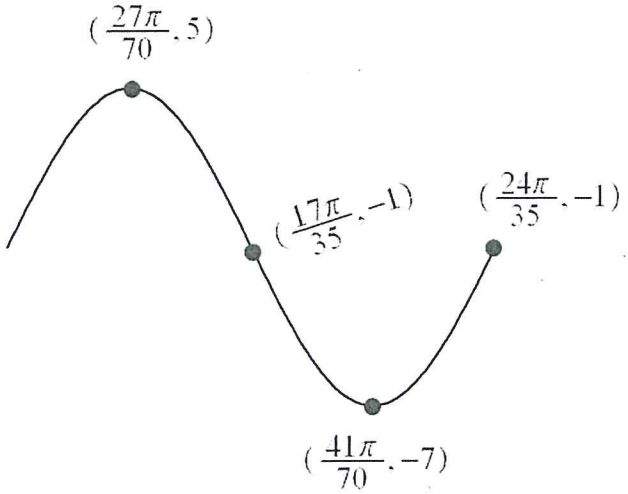
## Algebra 2 Bellwork Friday, May 20, 2016

1. Graph one period of this function. Label the coordinates of all maximums, minimums, and x-intercepts.

$y = -12\text{Cos}(7(x - \frac{5\pi}{3})) + 8$

2. Write both a Sin and Cos equation for this graph.



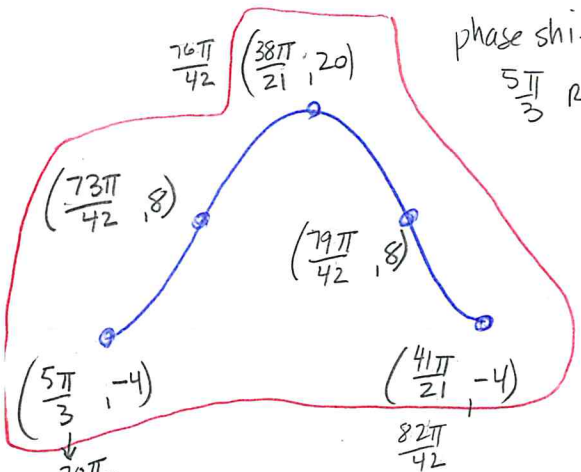

## Algebra 2 Bellwork Friday, May 20, 2016 Answers

1. Graph one period of this function. Label the coordinates of all maximums, minimums, and x-intercepts.

$y = -12\text{Cos}(7(x - \frac{5\pi}{3})) + 8$

midline $y = 8$ Amp = 12

phase shift $\frac{5\pi}{3}$ RT




Period = $\frac{2\pi}{7}$

1/4th of a period $\frac{2\pi}{7} \cdot \frac{1}{4} = \frac{\pi}{14} \cdot \frac{3}{3} = \frac{3\pi}{42}$

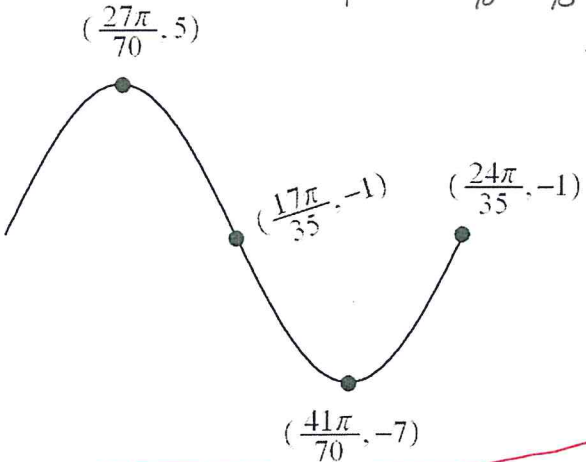
2. Write both a Sin and Cos equation for this graph.

midline: $y = -1$

Amp = 6

period $\frac{41\pi}{70} - \frac{27\pi}{70} = \frac{14\pi}{70} \cdot 2 = \frac{2\pi}{5}$

$b = 5$




Sin START AT $\frac{17\pi}{35}$ $y = -6\text{Sin}(5(x - \frac{17\pi}{35})) - 1$

Cos START AT $\frac{27\pi}{70}$ $y = 6\cos(5(x - \frac{27\pi}{70})) - 1$