Bellwork Thursday, April 10, 2014

1. Graph one period of the following function. Label the coordinates of all max, min, and zeros

$y = 8\text{Sin}\left(x - \frac{7\pi}{3}\right)$

$\left(\frac{17\pi}{6}, 8\right)$, $\left(\frac{10\pi}{3}, 0\right)$, $\left(\frac{13\pi}{3}, 0\right)$, $\left(\frac{7\pi}{3}, 0\right)$, $\left(\frac{23\pi}{6}, -8\right)$

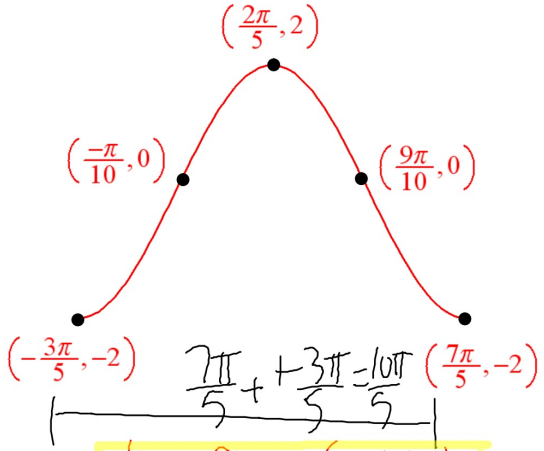
period $= 2\pi$

Amp $= 8$

midline $y = 0$

phase shift $\frac{7\pi}{3}$ RT

2. Write the equation of this cosine function.



$y = -2\cos\left(x + 3\pi/5\right)$

Amp $= 2$

period $= 2\pi$

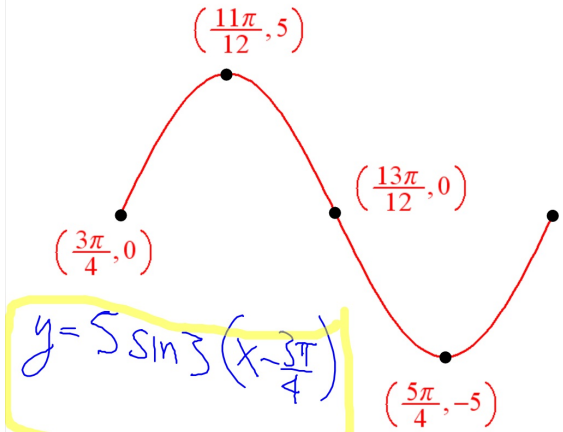
midline $y = 0$

phase shift

$\frac{3\pi}{5}$ left

$b = \frac{2\pi}{2\pi} = 1$

3. Write the equation of this Sine function.



$y = 5\sin 3\left(x - \frac{3\pi}{4}\right)$

Amp $= 5$

phase shift $\frac{3\pi}{4}$ RT

$\left(\frac{17\pi}{12}, 0\right)$ midline $y = 0$

period $= \frac{2\pi}{3}$

$b = 2\pi \cdot \frac{3}{2\pi} = 3$