

Bellwork Alg 2 Wednesday, April 17, 2019

Sketch one period of each Sine function. Label the coordinates of all minimums, maximums, and points on the midline.

1. $y = 9 \sin 7x$

2. $y = -5 \sin \frac{x}{8}$

3. $y = -15 \sin \frac{6x}{7}$

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1. $y = 9 \sin 7x$

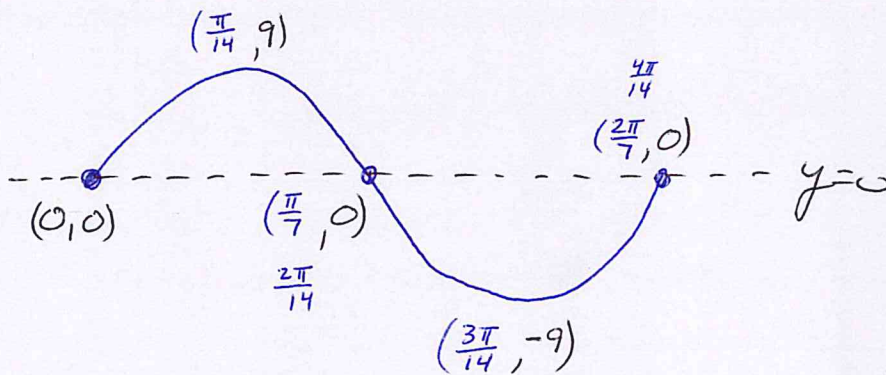
Amplitude = 9

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

midline: $y=0$

$\frac{1}{4}$ of a period:

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



2. $y = -5 \sin \frac{x}{8}$

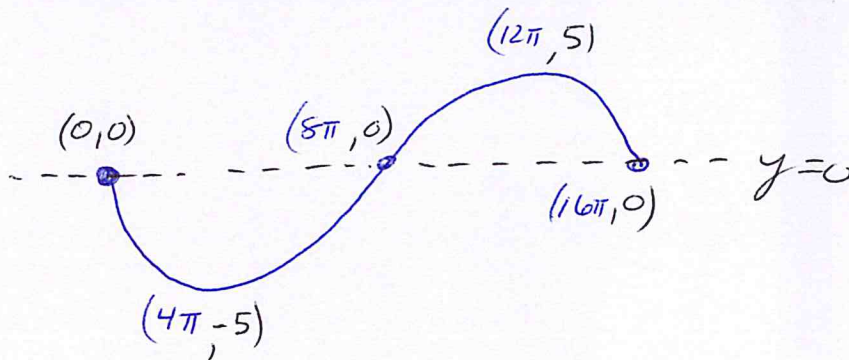
- Amplitude = 5

- upside down

- period = $\frac{2\pi}{1/8} = 16\pi$

$\frac{1}{4}$ period: $16\pi \cdot \frac{1}{4} = 4\pi$

- midline: $y=0$



3. $y = -15 \sin \frac{6x}{7}$

- Amplitude = 15

- upside down

- period = $\frac{2\pi}{6/7} = 2\pi \cdot \frac{7}{6}$

$= \frac{7\pi}{3}$

$\frac{1}{4}$ period: $\frac{7\pi}{3} \cdot \frac{1}{4} = \frac{7\pi}{12}$

- midline: $y=0$

