

Bellwork Alg 2B Wednesday, March 7, 2018

State the Amplitude and Period for each Sine function below.

1. $y = -13\sin 9x$

Amplitude =

Period =

2. $y = 0.82\sin \frac{6x}{5}$

Amplitude =

Period =

3. Graph one period of this function: $y = -8\sin 12x$. Label the graph with the coordinates of ALL max's, min's and pts on the midline.

4. If $\frac{a}{b} = 2$, what is the value of $\frac{4b}{a}$?

A) 0 B) 1 C) 2 D) 4

5. If $(ax + 2)(bx + 7) = 15x^2 + cx + 14$ for all values of x and $a + b = 8$, what are two possible values for c ?

A) 3 & 5 B) 6 & 35 C) 10 & 21 D) 31 & 41

State the Amplitude and Period for each Sine function below.

1. $y = -13\sin 9x$

Amplitude = 13

Period = $\frac{2\pi}{9}$

2. $y = 0.82\sin \frac{6x}{5}$

Amplitude = 0.82

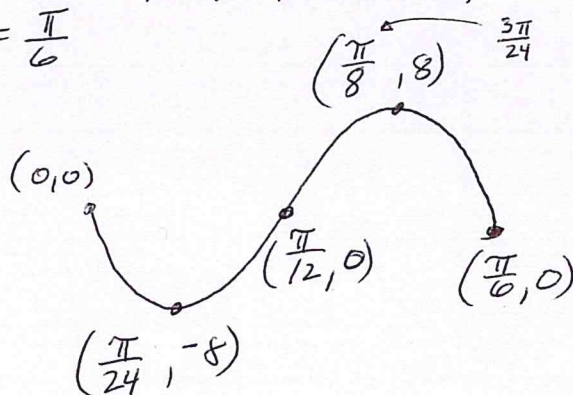
Period = $\frac{2\pi}{\frac{6}{5}} = 2\pi \cdot \frac{5}{6} = \frac{5\pi}{3}$

3. Graph one period of this function: $y = -8\sin 12x$. Label the graph with the coordinates of ALL max's, min's and pts on the midline.

Amplitude = 8

period = $\frac{2\pi}{12} = \frac{\pi}{6}$

x-axis Reflection



4. If $\frac{a}{b} = 2$, what is the value of $\frac{4b}{a}$?

- A) 0 B) 1 C) 2 D) 4

$b \cdot \frac{a}{b} = 2 \cdot b$

$a = 2b$

$\frac{4b}{a} = \frac{4b}{2b} = 2$

answer is C

5. If $(ax+2)(bx+7) = 15x^2 + cx + 14$ for all values

of x and $a+b=8$, what are two possible value for c ?

- A) 3 & 5 B) 6 & 35 C) 10 & 21 D) 31 & 41

$$\begin{array}{r} ax+2 \\ bx \quad \begin{array}{|c|c|} \hline abx^2 & 2bx \\ \hline 7ax & 14 \\ \hline \end{array} \\ +7 \end{array} = abx^2 + 7ax + 2bx + 14$$

$$= abx^2 + (7a+2b)x + 14$$

$$abx^2 + (7a+2b)x + 14 = 15x^2 + cx + 14$$

$ab = 15$
 $a+b=8$

$a=5 \quad b=3$
or
 $a=3 \quad b=5$

$c = 7a + 2b$

$c = 7(5) + 2(3)$
 $c = 35 + 6$
 $c = 41$ answer must be D