

NAME: _____

P.I. A2.A.69: Determine amplitude, period, frequency, and phase shift, given the graph or equation of a periodic function

1. Find the amplitude and period of $f(x) = -8 \sin(7x)$.

[A] amplitude = 8, period = $\frac{2}{7}\pi$ [B] amplitude = -8, period = $\frac{7}{2}\pi$
[C] amplitude = 8, period = $\frac{7}{2}\pi$ [D] amplitude = 16, period = $\frac{2}{7}\pi$

2. Find the amplitude and period of $f(x) = -5 \sin(6x)$.

3. Which is the amplitude of $y = -2 \sin 4x$? [A] -4 [B] $\frac{\pi}{2}$ [C] 2 [D] -2

4. Compare the quantity in Column A with the quantity in Column B.

Column A

Column B

the period of $y = 4 \sin 3x$ the period of $y = -4 \sin 6x$

- [A] The quantity in Column A is greater. [B] The quantity in Column B is greater.
[C] The two quantities are equal.
[D] The relationship cannot be determined on the basis of the information supplied.

5. Compare the quantity in Column A with the quantity in Column B.

Column A

Column B

the amplitude of $y = 3 \cos 2x$ the amplitude of $y = 2 \cos 3x$

- [A] The quantity in Column A is greater. [B] The quantity in Column B is greater.
[C] The two quantities are equal.
[D] The relationship cannot be determined on the basis of the information supplied.

[1] A

[2] amplitude = 5, period = $\frac{1}{3}\pi$

[3] C

[4] A

[5] A