



Determine amplitude of a sinusoidal function

1

Which sinusoidal function has this parameter?

$$\text{Period} = \frac{2}{2}$$

A

$$f(x) = \cos(2\pi x - 0\pi)$$

B

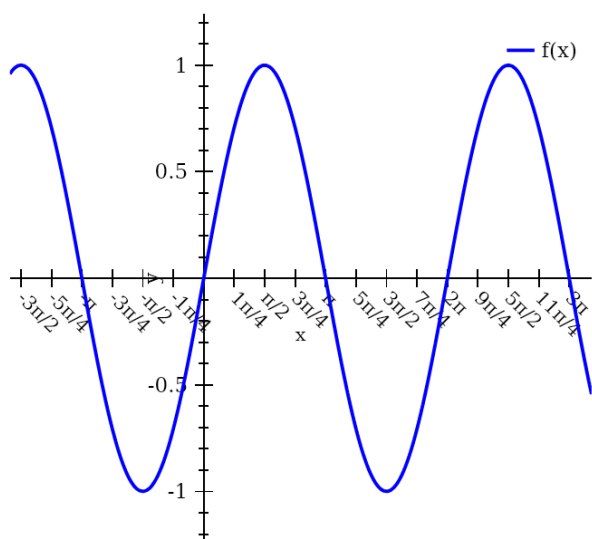
$$f(x) = \cos(2\pi x)$$

2

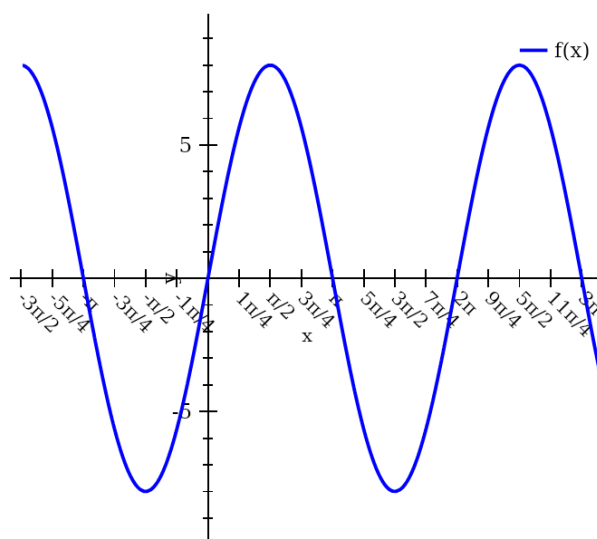
Which graph shows a sinusoidal function with this amplitude?

$$f(x) = 8 \cos(x)$$

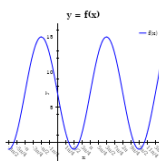
A

 $y = f(x)$ 

B

 $y = f(x)$ **3**

Which function would have a graph with this vertical shift?



A

$$f(x) = 8 \cos(x + 5\pi)$$

B

$$f(x) = 8 \cos(x + 5\pi) + 4$$

C

$$f(x) = 8 \cos(x + 5\pi) - 3$$

D

$$f(x) = 8 \cos(x + 5\pi) + 7$$

**Determine amplitude of a sinusoidal function****4**

What are the phase shift and amplitude of this sinusoidal function?

$$f(x) = \frac{4}{11} \sin\left(x + \frac{6}{11}\pi\right)$$

A

$$\begin{aligned}\text{Amplitude} &= \frac{4}{11} \\ \text{Phase Shift} &= \frac{6}{11} \text{ left}\end{aligned}$$

B

$$\begin{aligned}\text{Amplitude} &= \frac{6}{11} \\ \text{Phase Shift} &= \frac{4}{11}\pi \text{ left}\end{aligned}$$

C

$$\begin{aligned}\text{Amplitude} &= \frac{4}{11} \\ \text{Phase Shift} &= \frac{6}{11}\pi \text{ right}\end{aligned}$$

D

$$\begin{aligned}\text{Amplitude} &= \frac{4}{11} \\ \text{Phase Shift} &= \frac{6}{11}\pi \text{ left}\end{aligned}$$

5

What are the period, vertical shift, and phase shift of this sinusoidal function?

$$f(x) = \sin\left(\frac{8}{11}\pi x + \frac{6}{7}\pi\right) + \frac{8}{3}$$

A

$$\begin{aligned}\text{Period} &= \frac{22\pi}{8} \\ \text{Phase Shift} &= \frac{6}{7}\pi \text{ left} \\ \text{Vertical Shift} &= \frac{8}{3}\end{aligned}$$

B

$$\begin{aligned}\text{Period} &= \frac{22}{8} \\ \text{Phase Shift} &= \frac{6}{7}\pi \text{ left} \\ \text{Vertical Shift} &= \frac{8}{3}\end{aligned}$$

**Determine amplitude of a sinusoidal function****6**

What are the vertical shift, phase shift, amplitude, and period of this sinusoidal function?

$$f(x) = \frac{8}{3} \cos\left(\frac{5}{7}x + \frac{4}{5}\right) + 3$$

A

$$\text{Amplitude} = \frac{8}{3}$$

$$\text{Period} = \frac{14\pi}{5}$$

$$\text{Phase Shift} = \frac{4}{5}\pi \text{ left}$$

$$\text{Vertical Shift} = 3$$

B

$$\text{Amplitude} = \frac{8}{3}$$

$$\text{Period} = \frac{14\pi}{5}$$

$$\text{Phase Shift} = \frac{4}{5} \text{ left}$$

$$\text{Vertical Shift} = 3$$

7

What are the amplitude and phase shift of this sinusoidal function?

$$f(x) = \frac{8}{7} \cos(x + 2)$$

A

$$\text{Amplitude} = \frac{8}{7}$$

$$\text{Phase Shift} = 2\pi \text{ left}$$

B

$$\text{Amplitude} = \frac{8}{7}$$

$$\text{Phase Shift} = 2 \text{ right}$$

C

$$\text{Amplitude} = \frac{8}{7}$$

$$\text{Phase Shift} = 2 \text{ left}$$

D

$$\text{Amplitude} = 2$$

$$\text{Phase Shift} = \frac{8}{7} \text{ left}$$

**Determine amplitude of a sinusoidal function**

- 8 What are the amplitude, period, and phase shift of this sinusoidal function?

$$f(x) = \frac{5}{7} \cos\left(\frac{4}{5}\pi x + \frac{4}{11}\right)$$

A

$$\text{Amplitude} = \frac{5}{7}$$

$$\text{Period} = \frac{10}{4}$$

$$\text{Phase Shift} = \frac{4}{11}\pi \text{ left}$$

B

$$\text{Amplitude} = \frac{5}{7}$$

$$\text{Period} = \frac{10}{4}$$

$$\text{Phase Shift} = \frac{4}{11} \text{ left}$$

- 9 What are the period, vertical shift, amplitude, and phase shift of this sinusoidal function?

$$f(x) = -\frac{2}{3} \cos\left(\frac{2}{7}\pi x + \frac{2}{5}\pi\right) + \frac{8}{11}$$

A

$$\text{Amplitude} = \frac{2}{7}$$

$$\text{Period} = \frac{6}{2}$$

$$\text{Phase Shift} = \frac{2}{5}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{8}{11}$$

B

$$\text{Amplitude} = \frac{2}{3}$$

$$\text{Period} = \frac{14}{2}$$

$$\text{Phase Shift} = \frac{2}{5}\pi \text{ left}$$

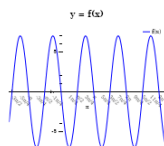
$$\text{Vertical Shift} = \frac{8}{11}$$



Determine amplitude of a sinusoidal function

10

Which function would have a graph with this amplitude?



A $f(x) = -7 \sin(2x + 8\pi)$

B $f(x) = 3 \sin(2x + 8\pi)$

C $f(x) = -5 \sin(2x + 8\pi)$

D $f(x) = 4 \sin(2x + 8\pi)$

11

What are the phase shift and amplitude of this sinusoidal function?

$$f(x) = \frac{6}{5} \cos\left(x + \frac{7}{11}\pi\right)$$

A
Amplitude $= \frac{6}{5}$
Phase Shift $= \frac{7}{11}\pi$ left

B
Amplitude $= \frac{7}{11}$
Phase Shift $= \frac{6}{5}\pi$ left

C
Amplitude $= \frac{6}{5}$
Phase Shift $= \frac{7}{11}\pi$ left

D
Amplitude $= \frac{6}{5}$
Phase Shift $= \frac{7}{11}\pi$ right