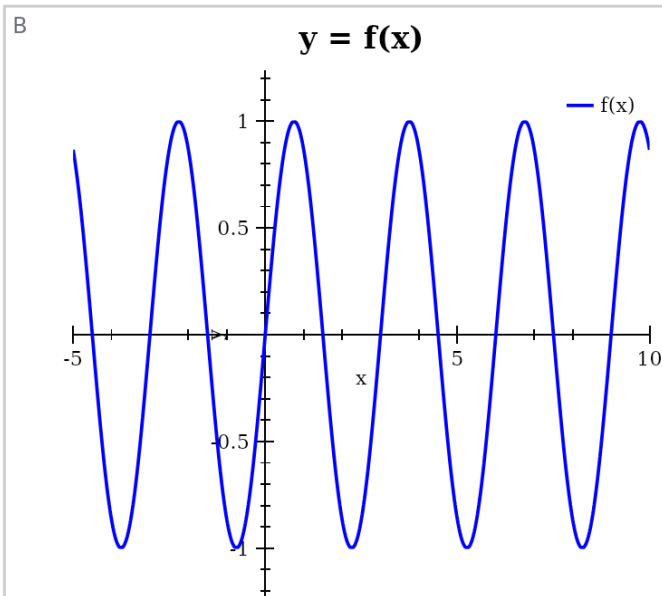
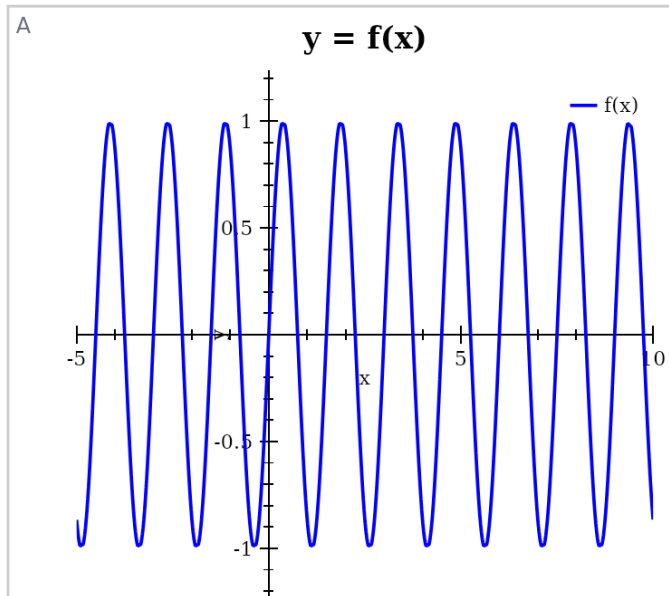


**Determine period of a sinusoidal function****1**

Which graph shows a sinusoidal function with this period?

$$f(x) = \sin\left(\frac{2}{3}\pi x\right)$$

**2**

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

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

A

Phase Shift = $\frac{8}{11}$ right

Vertical Shift = $\frac{2}{7}$

B

Phase Shift = $\frac{2}{7}$ left

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

C

Phase Shift = $\frac{8}{11}$ left

Vertical Shift = $\frac{2}{7}$

D

Phase Shift = $\frac{8}{11}\pi$ left

Vertical Shift = $\frac{2}{7}$

**Determine period of a sinusoidal function**

- 3** What are the vertical shift, amplitude, and period of this sinusoidal function?

$$f(x) = \frac{3}{5} \sin\left(\frac{7}{3}x\right) + \frac{7}{2}$$

A

$$\text{Amplitude} = \frac{7}{3}$$

$$\text{Period} = \frac{10\pi}{3}$$

$$\text{Vertical Shift} = \frac{7}{2}$$

B

$$\text{Amplitude} = \frac{3}{5}$$

$$\text{Period} = \frac{6\pi}{7}$$

$$\text{Vertical Shift} = \frac{7}{2}$$

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

$$f(x) = \frac{7}{11} \sin\left(\frac{3}{11}x + \frac{6}{5}\pi\right) + \frac{7}{5}$$

A

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

$$\text{Period} = \frac{22\pi}{3}$$

$$\text{Phase Shift} = \frac{6}{5}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{7}{11}$$

B

$$\text{Amplitude} = \frac{7}{11}$$

$$\text{Period} = \frac{22\pi}{3}$$

$$\text{Phase Shift} = \frac{6}{5}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{7}{5}$$

**Determine period of a sinusoidal function****5**

What are the amplitude and period of this sinusoidal function?

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

A

$$\text{Amplitude} = \frac{5}{11}$$

$$\text{Period} = \frac{4\pi}{7}$$

B

$$\text{Amplitude} = \frac{5}{11}$$

$$\text{Period} = \frac{4}{7}$$

C

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

$$\text{Period} = \frac{22\pi}{5}$$

6

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

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

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

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

**Determine period of a sinusoidal function****7**

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

$$f(x) = \frac{3}{2} \cos\left(\frac{6}{11}x + 2\pi\right) + \frac{8}{3}$$

A

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

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

$$\text{Phase Shift} = \frac{6}{11}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{8}{3}$$

B

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

$$\text{Period} = \frac{22\pi}{6}$$

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

$$\text{Vertical Shift} = \frac{8}{3}$$

8

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

$$f(x) = \sin(2x) + \frac{3}{2}$$

A

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

$$\text{Vertical Shift} = \frac{3}{2}$$

B

$$\text{Period} = \frac{4\pi}{3}$$

$$\text{Vertical Shift} = 2$$

C

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

$$\text{Vertical Shift} = \frac{3}{2}$$

**Determine period of a sinusoidal function**

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

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

A

$$\text{Period} = \frac{22}{4}$$

$$\text{Phase Shift} = \frac{5}{7}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{4}{5}$$

B

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

$$\text{Phase Shift} = \frac{5}{7}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{4}{11}$$

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

$$f(x) = -2\sin\left(\frac{8}{5}\pi x + \frac{4}{7}\pi\right) + \frac{8}{7}$$

A

$$\text{Amplitude} = 2$$

$$\text{Period} = \frac{10}{8}$$

$$\text{Phase Shift} = \frac{4}{7}\pi \text{ right}$$

$$\text{Vertical Shift} = \frac{8}{7}$$

B

$$\text{Amplitude} = 2$$

$$\text{Period} = \frac{10}{8}$$

$$\text{Phase Shift} = \frac{4}{7}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{8}{7}$$