

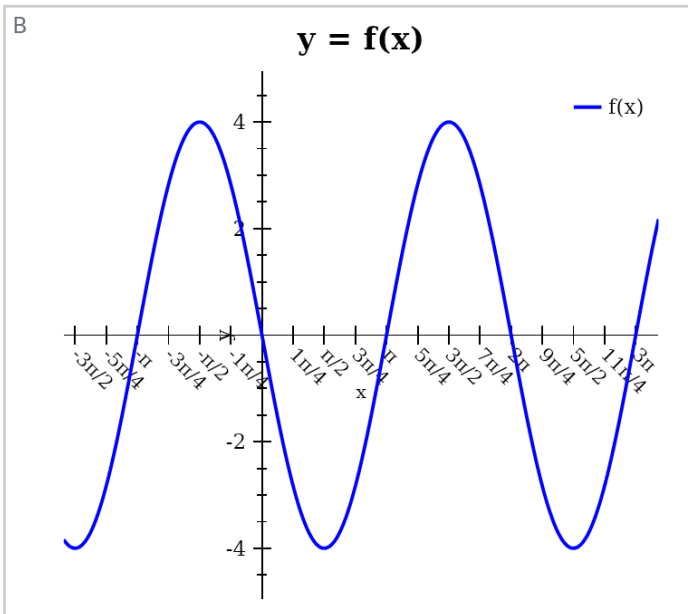
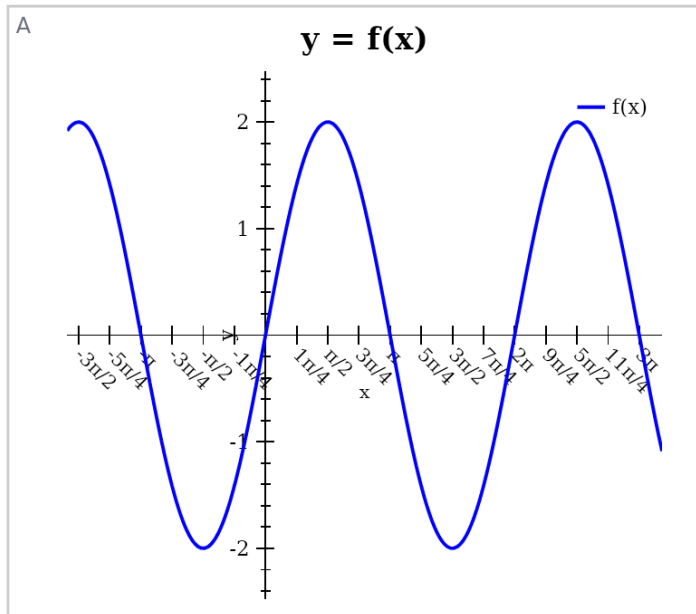


Graph sine, cosine, and tangent functions

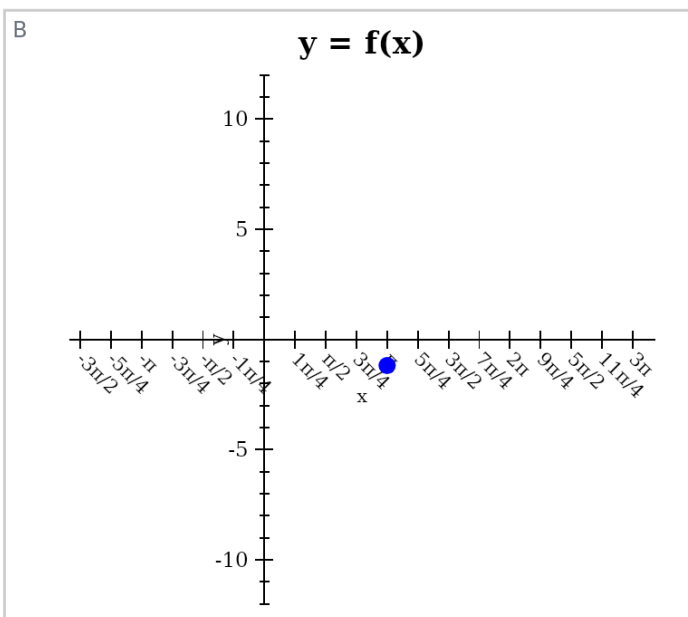
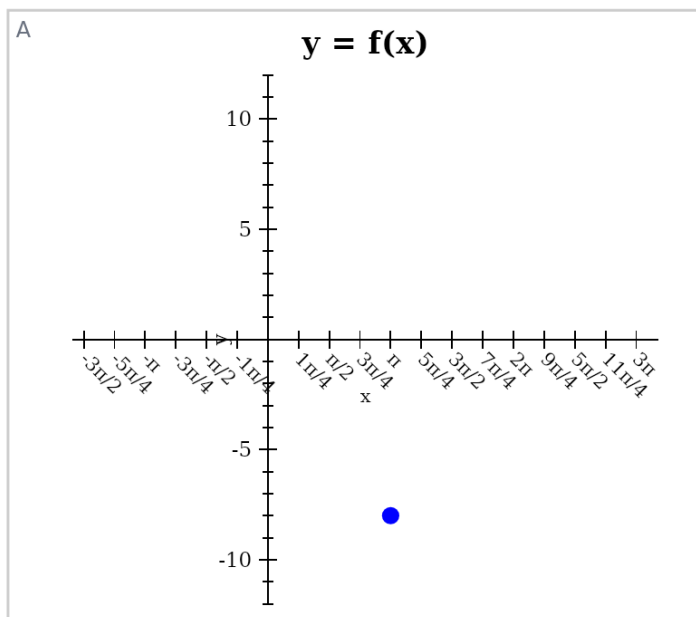
1

Which graph shows a sinusoidal function with this amplitude?

$$f(x) = -4\sin(x)$$

**2**Which graph shows the value of this function at $x = \pi$?

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





Graph sine, cosine, and tangent functions

3

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

$$f(x) = \cos\left(x + \frac{4}{11}\right) + \frac{2}{11}$$

A

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

$$\text{Vertical Shift} = \frac{2}{11}$$

B

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

$$\text{Vertical Shift} = \frac{2}{11}$$

C

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

$$\text{Vertical Shift} = \frac{2}{11}$$

D

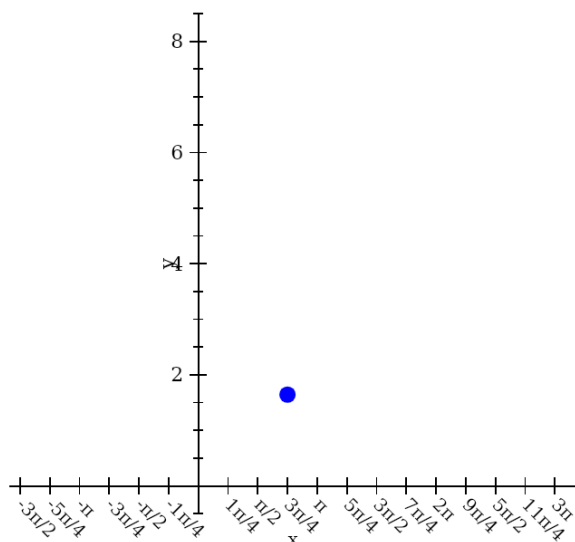
$$\text{Phase Shift} = \frac{2}{11} \text{ left}$$

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

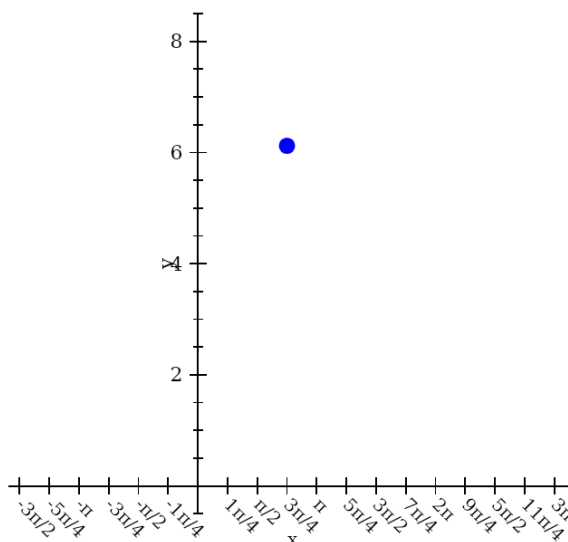
4Which graph shows the value of this function at $x = 3\pi/4$?

$$f(x) = 3\sin(x) + 4$$

A

 $y = f(x)$ 

B

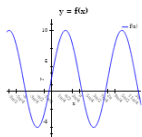
 $y = f(x)$ 



Graph sine, cosine, and tangent functions

5

Which function would have a graph with this amplitude?



A $f(x) = 3 \sin(x) + 2$

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

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

D $f(x) = -2 \sin(x) + 2$

6

Which sinusoidal function has these parameters?

$$\begin{aligned} \text{Amplitude} &= \frac{2}{7} \\ \text{Period} &= \frac{14\pi}{6} \\ \text{Phase Shift} &= \frac{2}{11}\pi \text{ left} \\ \text{Vertical Shift} &= \frac{8}{3} \end{aligned}$$

A

$$f(x) = \frac{2}{7} \cos\left(\frac{6}{7}x + \frac{2}{11}\right) + \frac{8}{3}$$

B

$$f(x) = \frac{2}{7} \cos\left(\frac{6}{7}x + \frac{2}{11}\pi\right) + \frac{8}{3}$$

7

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

$$f(x) = \frac{8}{7} \sin\left(x + \frac{5}{11}\pi\right) + \frac{4}{7}$$

A

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

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

$$\text{Vertical Shift} = \frac{5}{11}$$

B

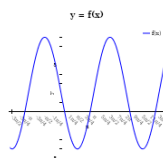
$$\text{Amplitude} = \frac{8}{7}$$

$$\text{Phase Shift} = \frac{5}{11}\pi \text{ left}$$

$$\text{Vertical Shift} = \frac{4}{7}$$

8

Which function would have a graph with this vertical shift?



A $f(x) = 6 \cos(x + 5\pi) - 1$

B $f(x) = 6 \cos(x + 5\pi) + 2$

C $f(x) = 6 \cos(x + 5\pi) - 3$

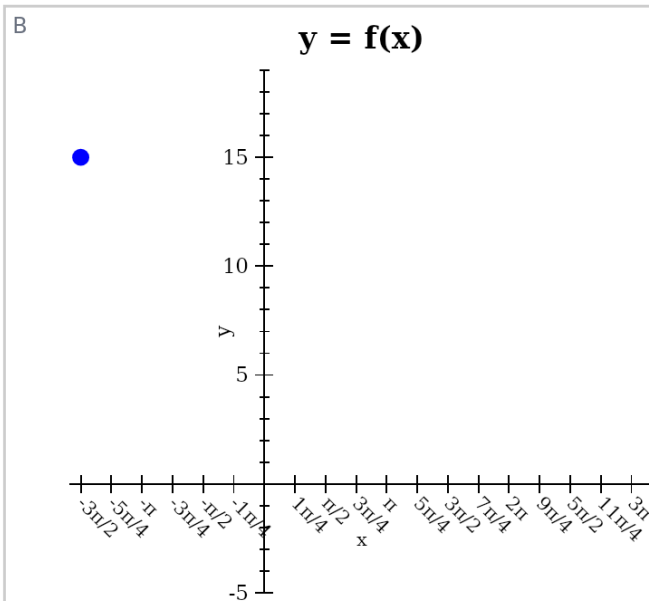
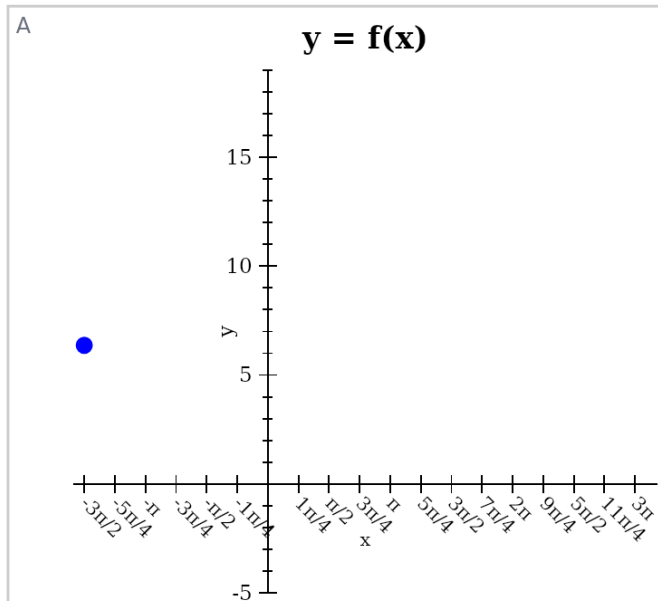
D $f(x) = 6 \cos(x + 5\pi) + 4$



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9Which graph shows the value of this function at $x = -3\pi/2$?

$$f(x) = -8\sin(x + 3\pi) + 7$$

**10**Which graph shows the value of this function at $x = -2$?

$$f(x) = -8\cos\left(\frac{1}{6}\pi x + 2\pi\right) + 4$$

