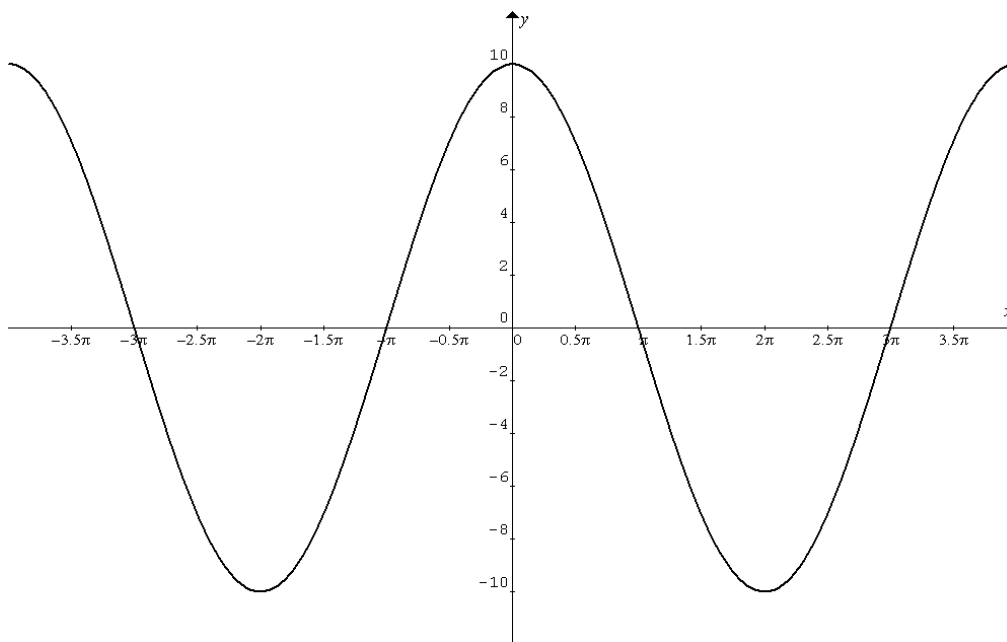


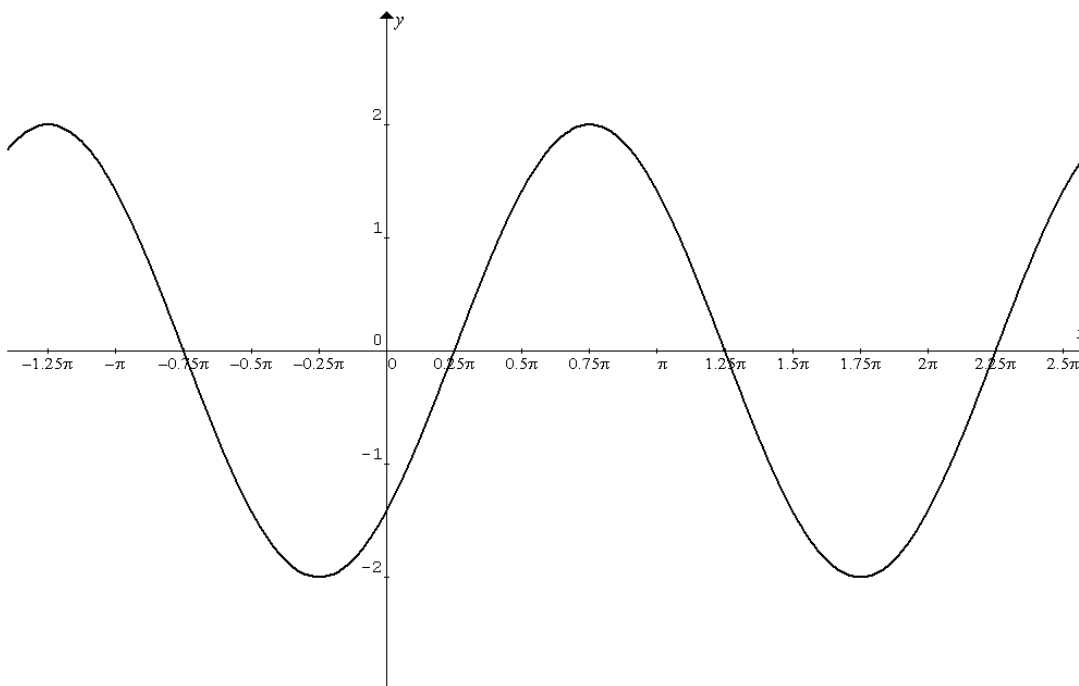
## Trig Graphs Worksheet

State the equations for the following graphs.



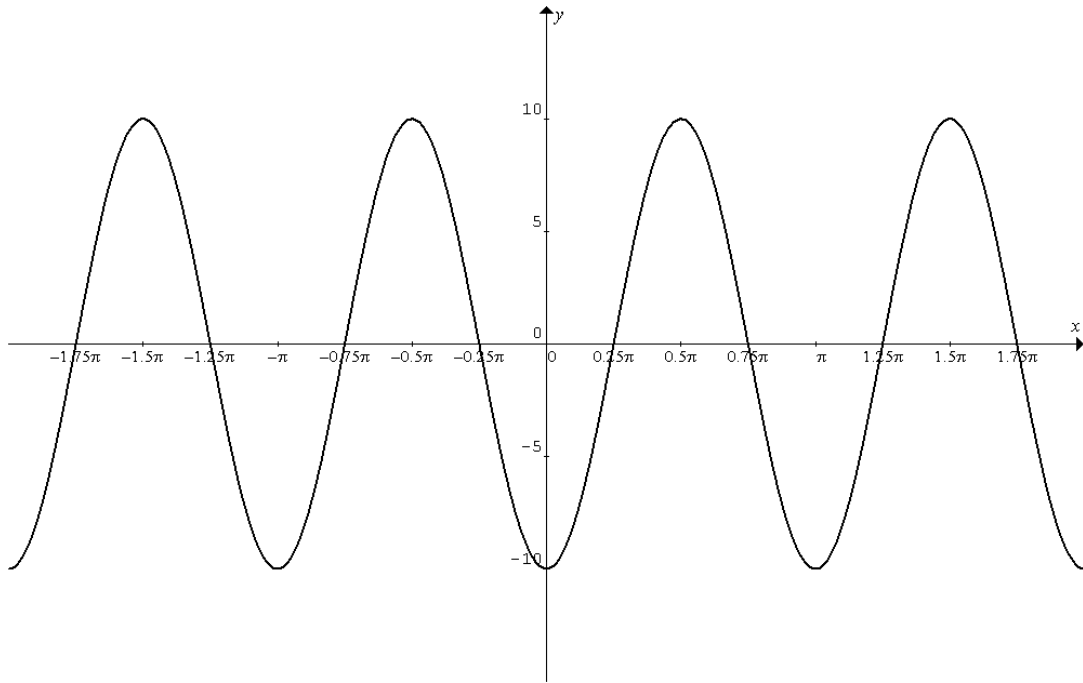
Amplitude = \_\_\_\_\_ Period = \_\_\_\_\_ Phase Shift = \_\_\_\_\_

Equation (1) = \_\_\_\_\_ (in terms of the **cosine** function)



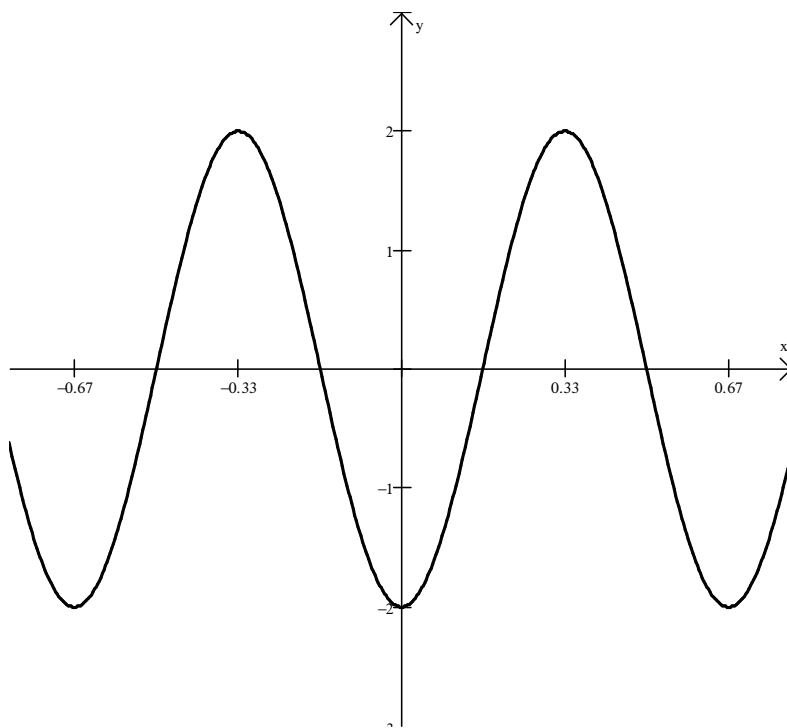
Amplitude = \_\_\_\_\_ Period = \_\_\_\_\_ Phase Shift = \_\_\_\_\_

Equation (2) = \_\_\_\_\_ (in terms of the **sine** function)



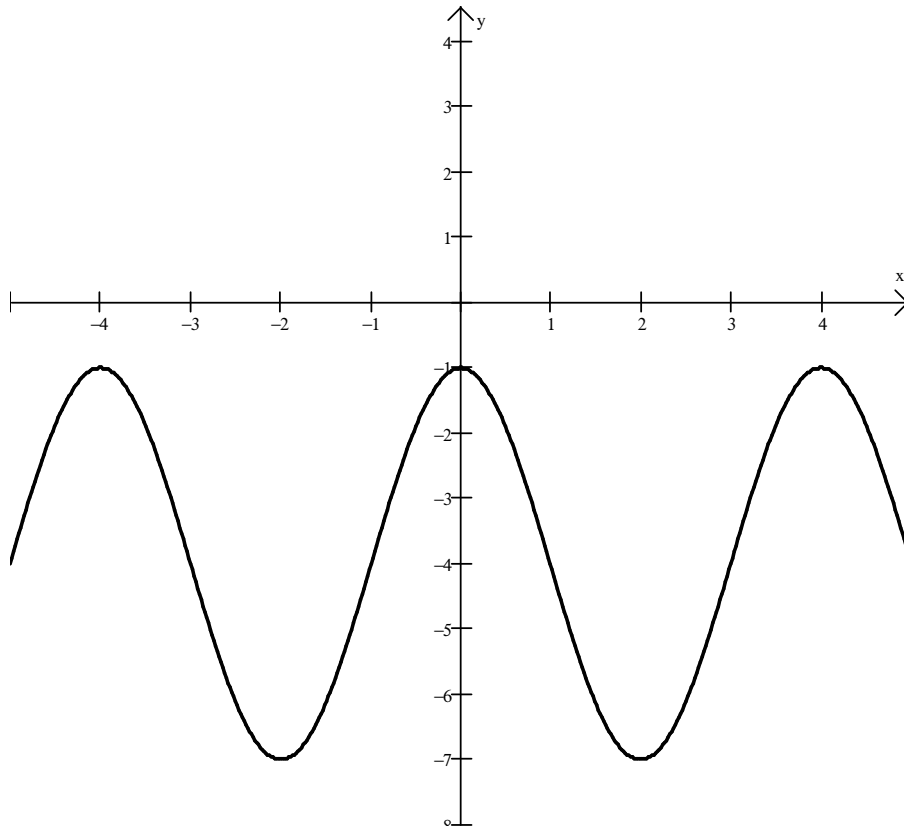
Amplitude = \_\_\_\_\_      Period = \_\_\_\_\_      Phase Shift = \_\_\_\_\_

Equation (3) = \_\_\_\_\_ (in terms of the **sine** function)



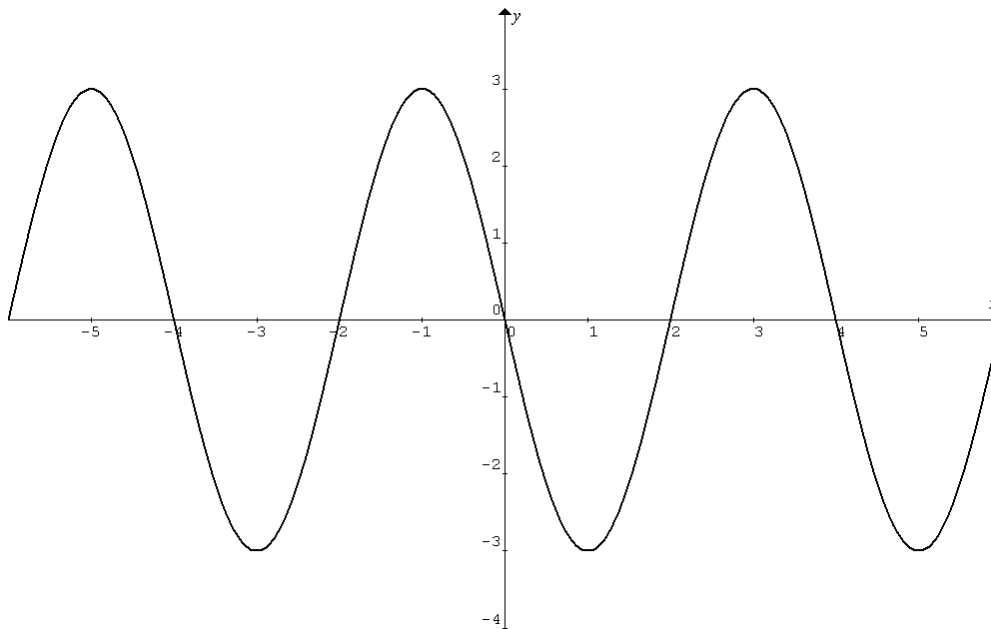
Amplitude = \_\_\_\_\_      Period = \_\_\_\_\_      Phase Shift = \_\_\_\_\_

Equation (4) = \_\_\_\_\_ (in terms of the **cosine** function)



Amplitude = \_\_\_\_\_      Period = \_\_\_\_\_      Phase Shift = \_\_\_\_\_

Equation (5) = \_\_\_\_\_ (in terms of the **cosine** function)



Amplitude = \_\_\_\_\_      Period = \_\_\_\_\_      Phase Shift = \_\_\_\_\_

Equation (6) = \_\_\_\_\_ (in terms of the **sine** function)

Graph one complete period of the given sine or cosine curve. (Check your answer with your graphing calculator!)

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

Amplitude = \_\_\_\_\_

Period = \_\_\_\_\_

Phase Shift = \_\_\_\_\_



$$f(x) = 2 \sin\left(\frac{2}{3}x - \frac{\pi}{6}\right)$$

Amplitude = \_\_\_\_\_

Period = \_\_\_\_\_

Phase Shift = \_\_\_\_\_



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

Amplitude = \_\_\_\_\_

Period = \_\_\_\_\_

Phase Shift = \_\_\_\_\_



$$f(x) = \frac{1}{10} \cos 2\left(x + \frac{\pi}{4}\right)$$

Amplitude = \_\_\_\_\_

Period = \_\_\_\_\_

Phase Shift = \_\_\_\_\_



**ANSWERS:**

(1)  $y = 10 \cos \frac{1}{2}x$

(2)  $y = 2 \sin \left( x - \frac{\pi}{4} \right)$

(3)  $y = 10 \sin \left( 2x - \frac{\pi}{2} \right)$  or  $y = 10 \sin 2 \left( x - \frac{\pi}{4} \right)$

(4)  $y = -2 \cos(3\pi x)$  or  $y = 2 \cos 3\pi \left( x - \frac{1}{3} \right)$

(5)  $y = 3 \cos \left( \frac{\pi}{2}x \right) - 4$

(6)  $y = 3 \sin \frac{\pi}{2}(x+2)$  or  $y = 3 \sin \left( \frac{\pi}{2}x + \pi \right)$