

# 10.3

## SM3 Graphing Sine and Cosine #3

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

Fill in the blanks for each equation.

1.  $f(\theta) = 6 \sin 4(\theta - \pi) + 1$

Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

b: \_\_\_\_\_

Period: \_\_\_\_\_

2.  $f(\theta) = 2 + \cos\left(\theta + \frac{\pi}{5}\right)$

Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

b: \_\_\_\_\_

Period: \_\_\_\_\_

Fill in the vertical shift, amplitude, phase shift, and period. Then graph at least 1 period or cycle. Label 5 key points or make a table of the key points.

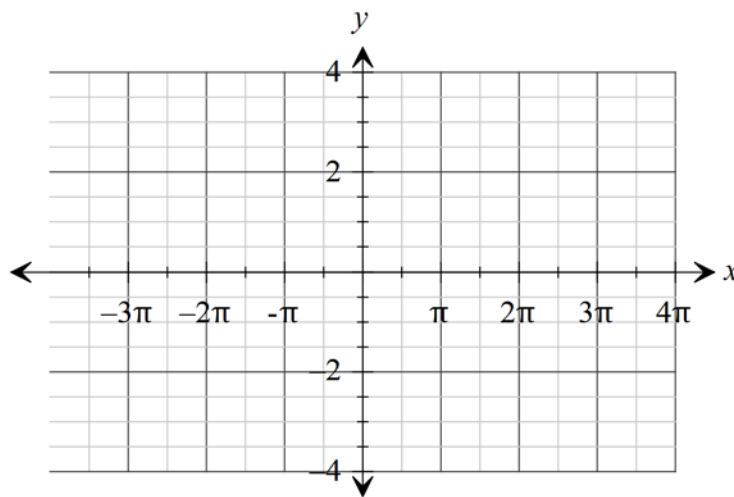
3.  $f(\theta) = 2 + \sin(\theta - 2\pi)$

Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_



$\theta$					
$y = \sin \theta$					

4.  $f(\theta) = 2 \cos 5\theta$

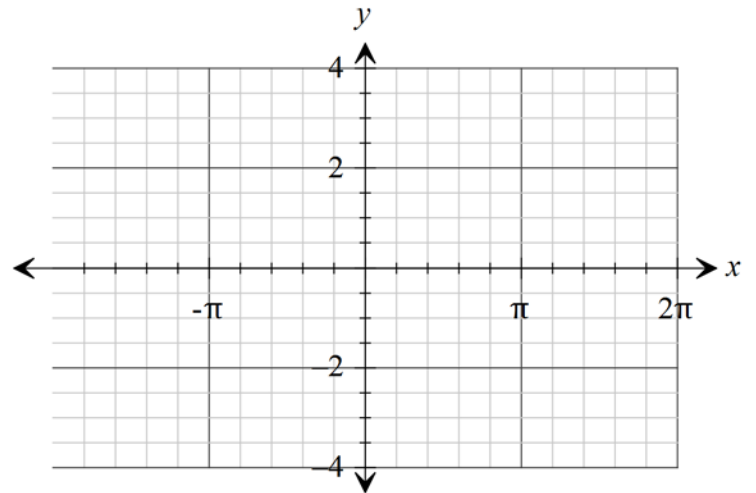
Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_

$\theta$					
$y = \cos \theta$					



5.  $f(\theta) = \cos\left(\frac{\theta}{4}\right) - 3$

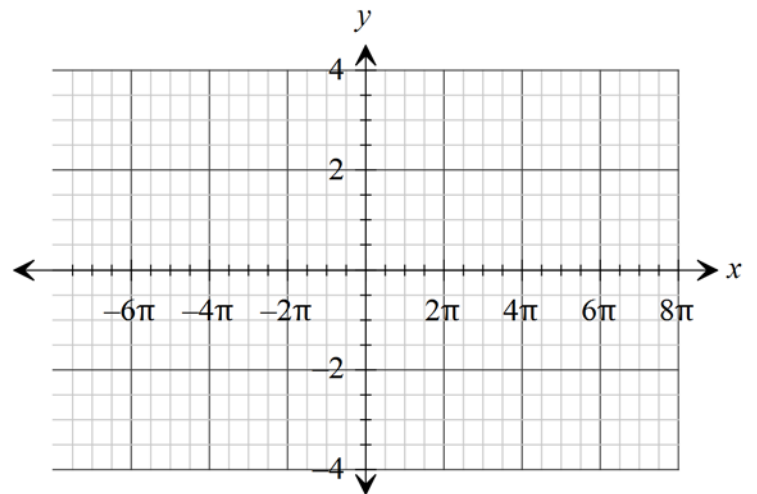
Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_

$\theta$					
$y = \cos \theta$					



6.  $f(\theta) = 2 + \frac{1}{2}\sin(\theta + \pi)$

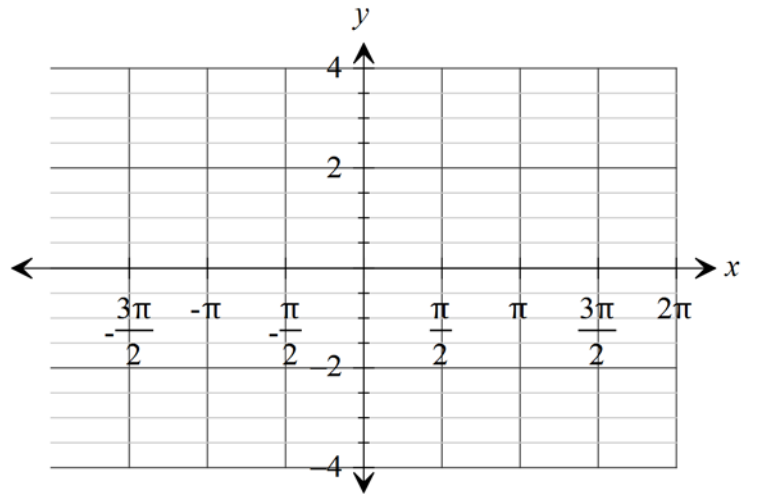
Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_

$\theta$					
$y = \sin \theta$					



7.  $f(\theta) = -1 + 3 \cos 2\left(\theta + \frac{\pi}{2}\right)$

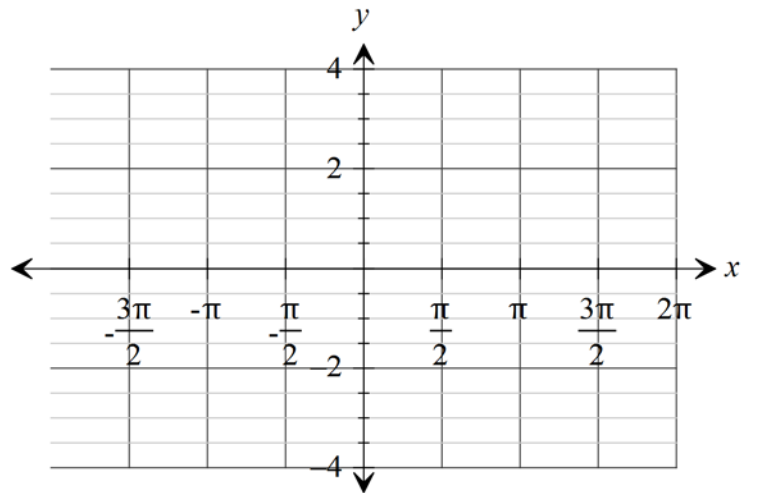
Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_

$\theta$					
$y = \cos \theta$					



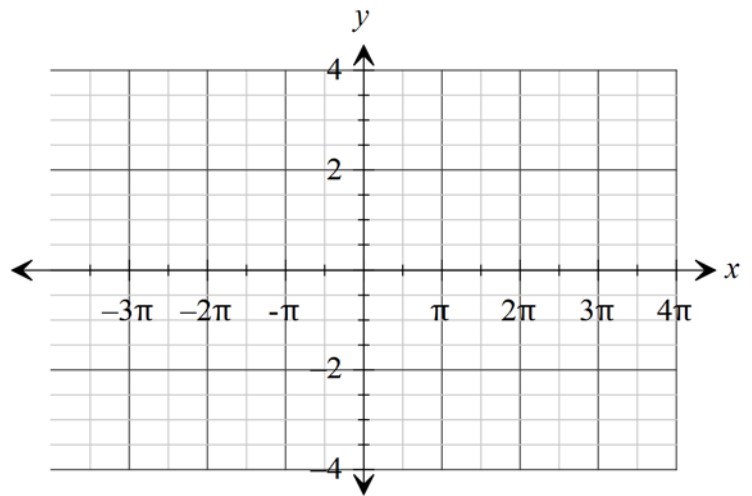
8.  $f(\theta) = 2 \cos 3(\theta - \pi)$

Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_



$\theta$					
$y = \cos \theta$					

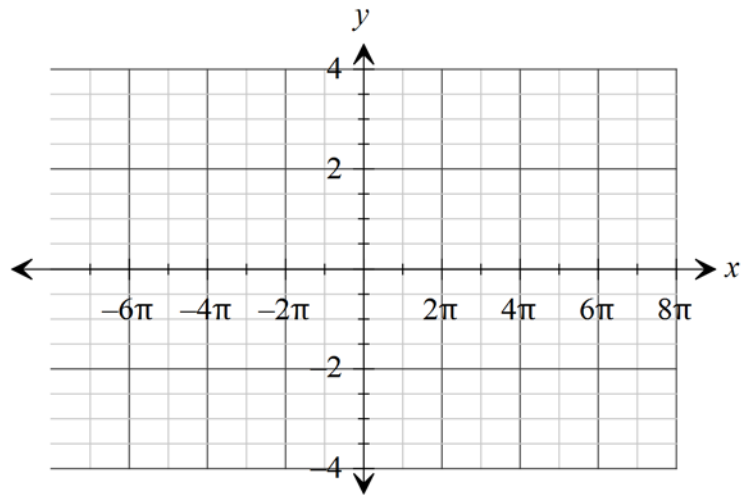
9.  $f(\theta) = 2 \sin\left(\frac{\theta}{3}\right) - 2$

Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_



$\theta$					
$y = \sin \theta$					

10.  $f(\theta) = 2 - 3 \sin \theta$

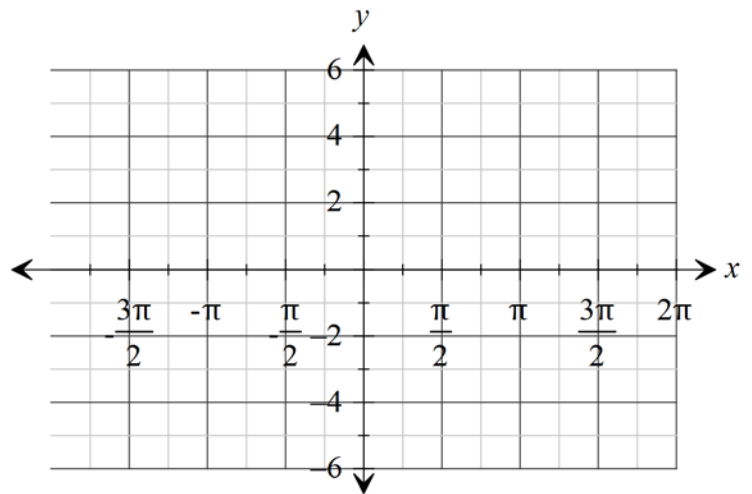
Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_

$\theta$					
$y = \sin \theta$					



11.  $f(\theta) = -2 \cos \left( \theta - \frac{\pi}{6} \right)$

Vertical Shift (k): \_\_\_\_\_

Amplitude (a): \_\_\_\_\_

Phase Shift (h): \_\_\_\_\_

Period: \_\_\_\_\_

$\theta$					
$y = \cos \theta$					

