

10.3

Graphing Sine and Cosine with All Transformations 2023-2024

SCORE:

/

Name _____ Date _____ Period _____

Fill in the blanks for each equation.

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

Vertical Shift (d): _____

Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

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

Vertical Shift (d): _____

Amplitude (a): _____

Phase Shift (c): _____

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

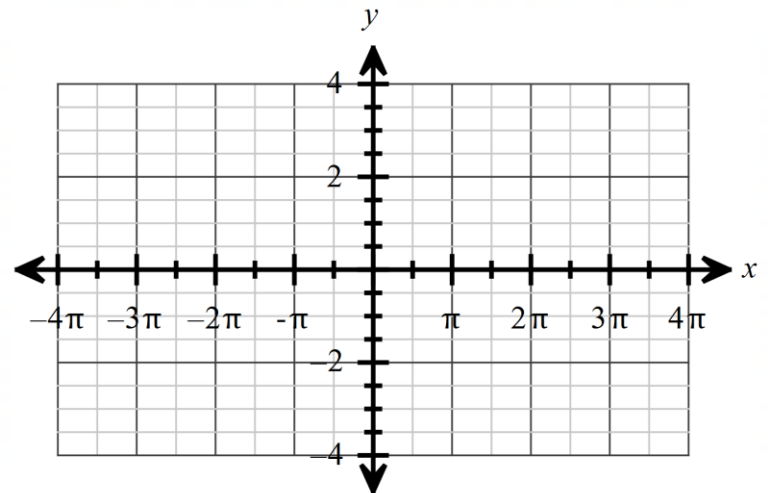
Vertical Shift (d): _____

Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____



θ					
$y = \sin \theta$					

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

Vertical Shift (d): _____

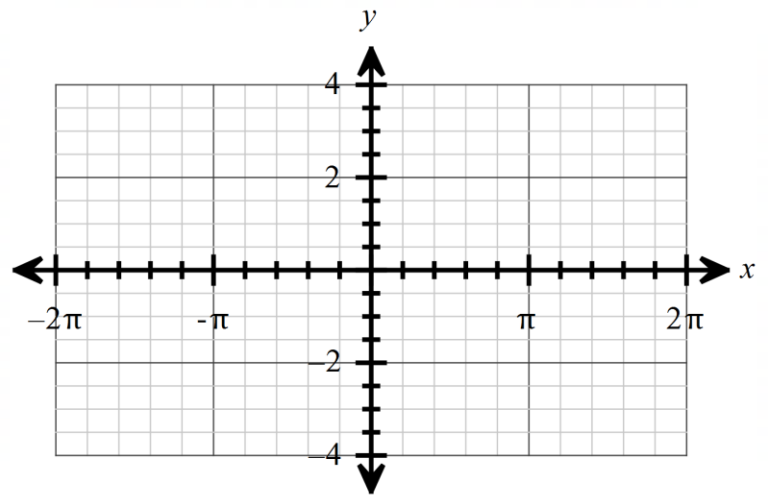
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \cos \theta$					



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

Vertical Shift (d): _____

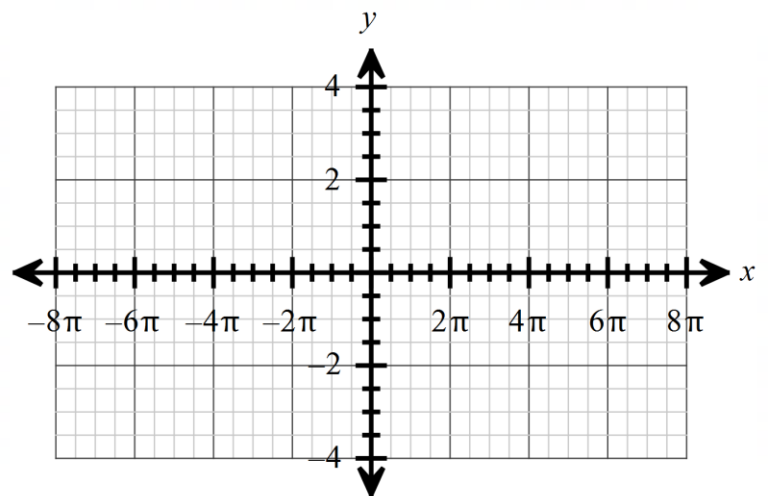
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \cos \theta$					



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

Vertical Shift (d): _____

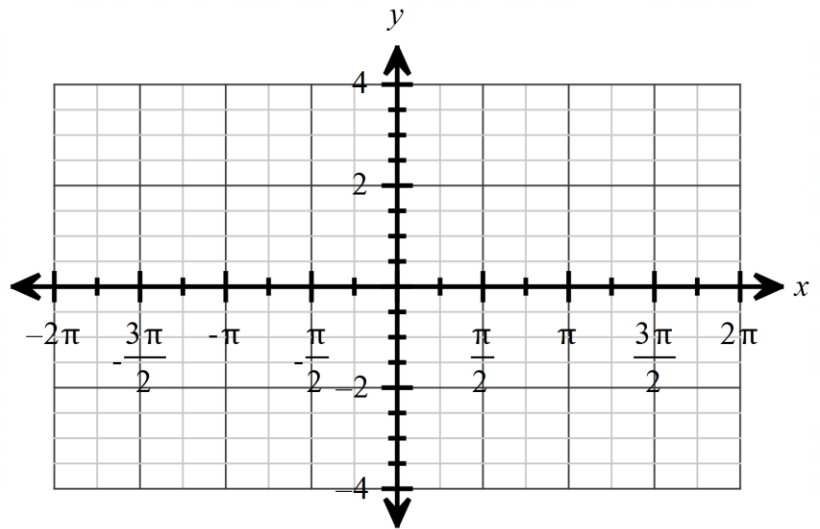
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \sin \theta$					



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

Vertical Shift (d): _____

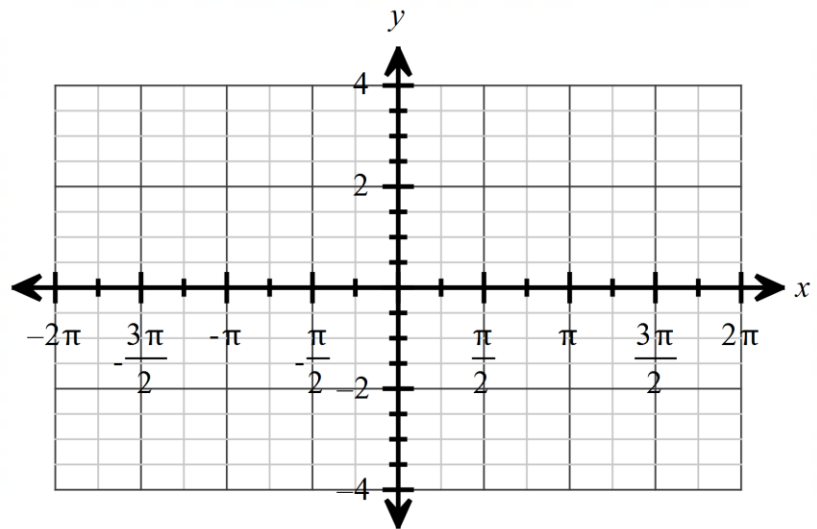
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \cos \theta$					



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

Vertical Shift (d): _____

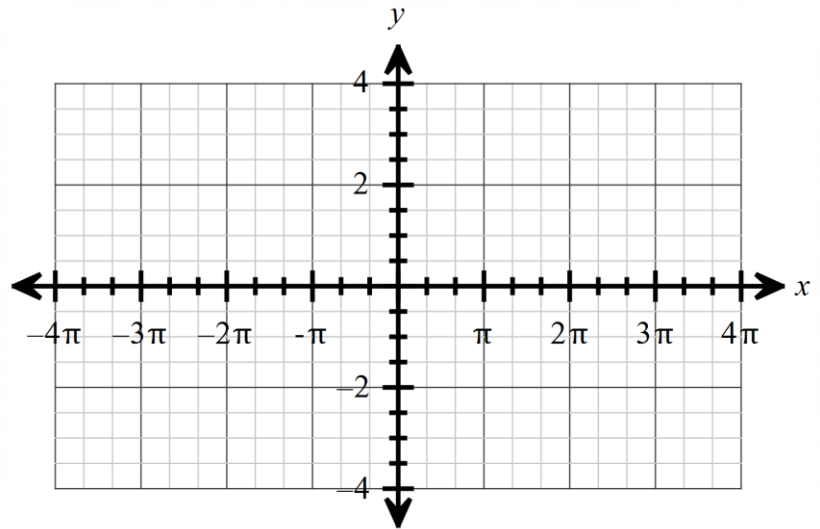
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \cos \theta$					



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

Vertical Shift (d): _____

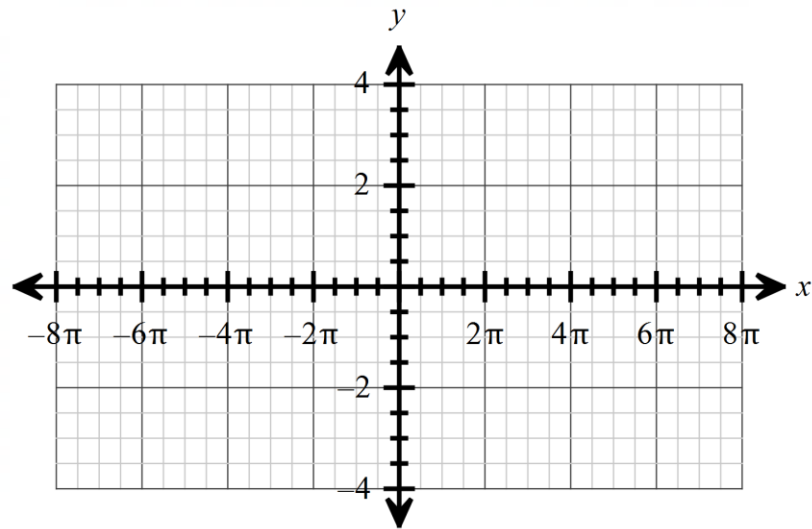
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \sin \theta$					



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

Vertical Shift (d): _____

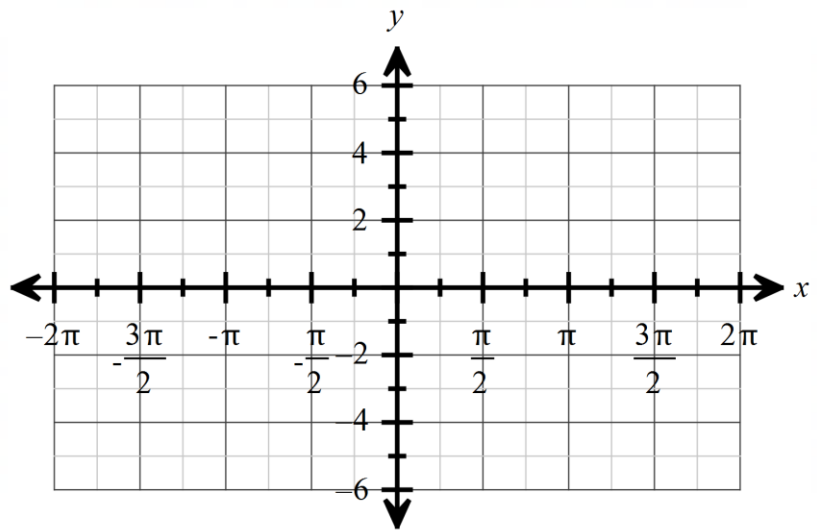
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \sin \theta$					



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

Vertical Shift (d): _____

Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

θ					
$y = \cos \theta$					

