

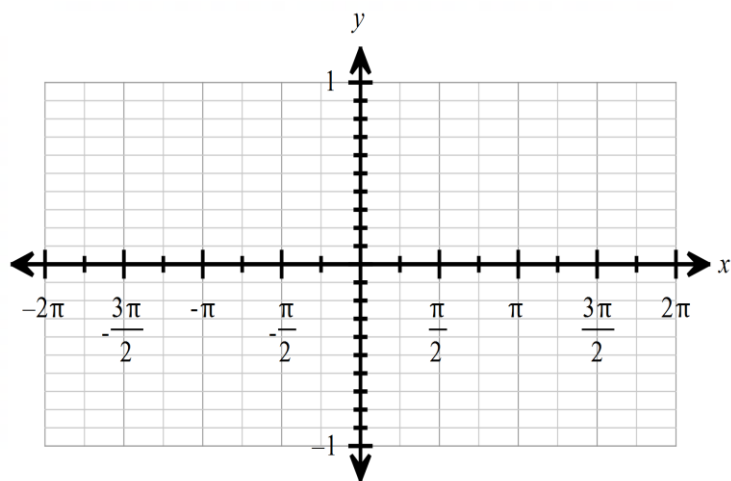
10.3

Date:

Objective:

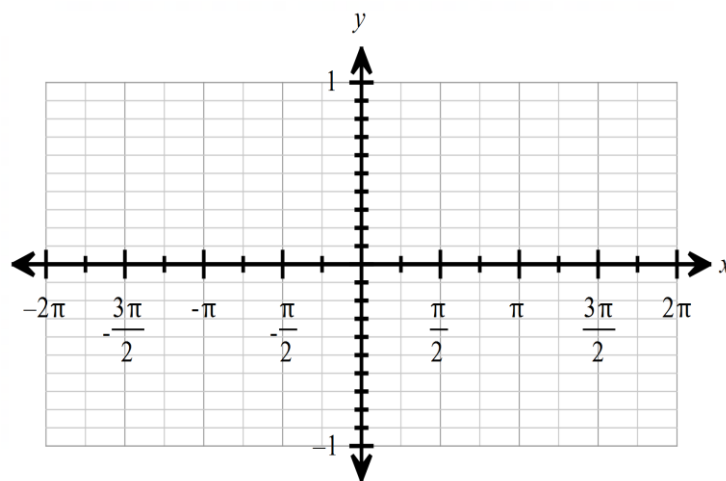
A. Graph Sine and Cosine

Parent sine graph $f(\theta) = \sin \theta$
Draw the graph and make a table.



θ					
$y = \sin \theta$					

Parent cosine graph $f(\theta) = \cos \theta$
Draw the graph and make a table.



θ					
$y = \cos \theta$					

For the parent graph of $f(\theta) = \sin \theta$

Vertical shift (d):

Amplitude (a):

b:

Period:

Phase shift (c):

Frequency:

For the parent graph of $f(\theta) = \cos \theta$

Vertical shift (d):

Amplitude (a):

b:

Period:

Phase shift (c):

Frequency:

Steps for when you do all 4 transformations in one function

1.

2.

3.

4.

5.

B. Examples

EX. 1 $f(\theta) = 3\sin\left(\theta + \frac{\pi}{2}\right)$

Vertical Shift (d): _____

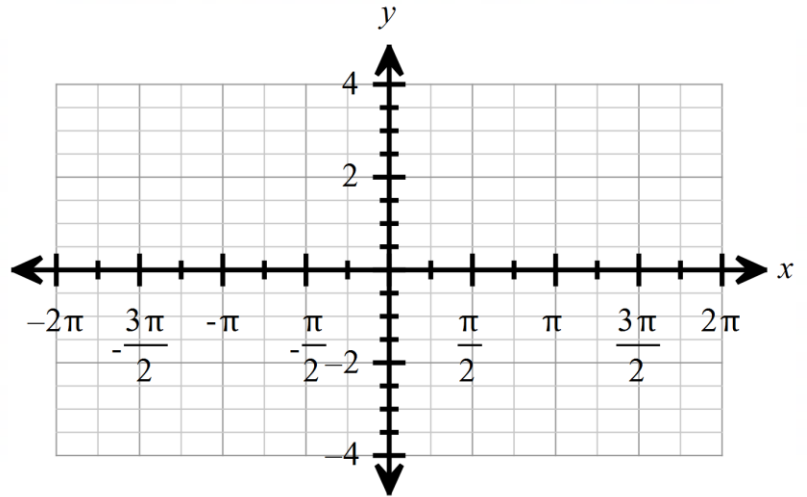
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

Transformations:



θ					
$y = \sin \theta$					

EX. 2 $f(\theta) = -\cos\left(4\left(\theta - \frac{\pi}{4}\right)\right)$

Vertical Shift (d): _____

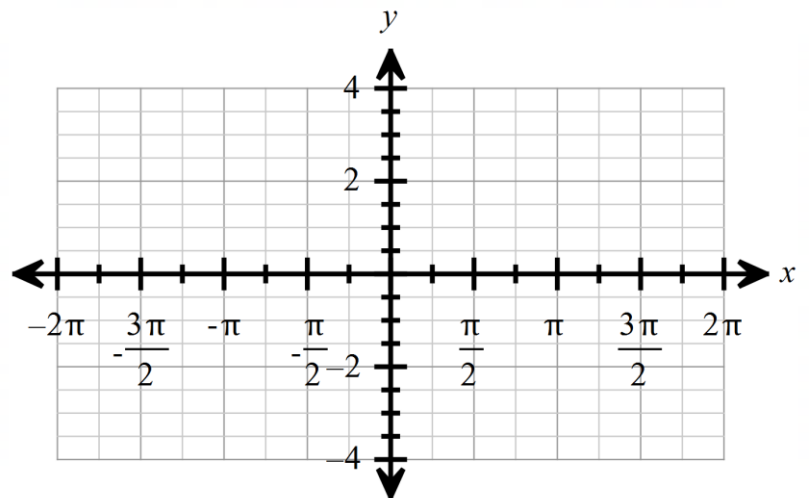
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

Transformations:



θ					
$y = \cos \theta$					

EX. 3 $f(\theta) = -4\cos 2\theta - 3$

Vertical Shift (d): _____

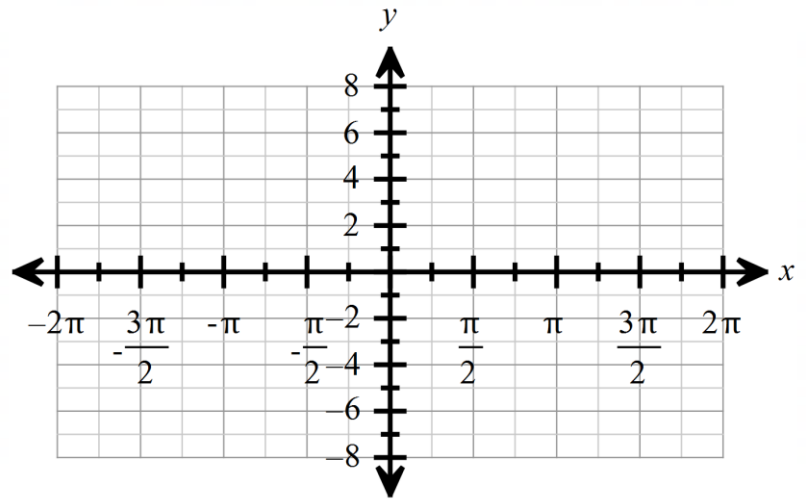
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

Transformations:



θ					
$y = \cos \theta$					

EX. 4 $f(\theta) = 1 + 2\sin \frac{1}{2}(\theta - \pi)$

Vertical Shift (d): _____

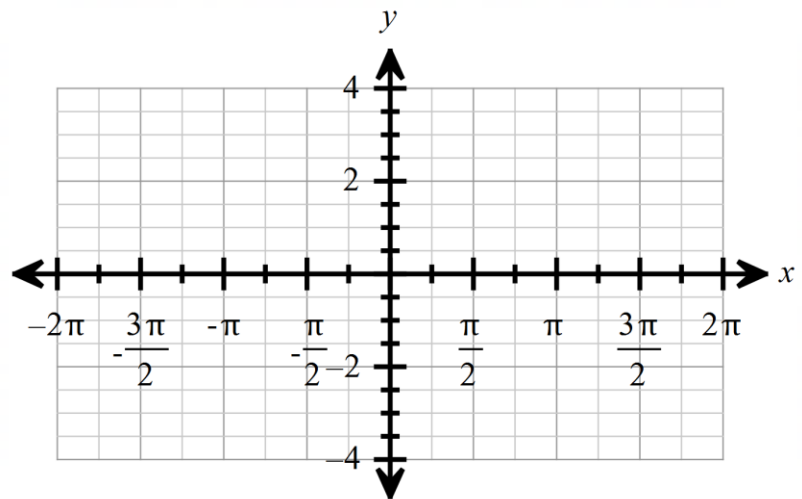
Amplitude (a): _____

Phase Shift (c): _____

b: _____

Period: _____

Transformations:



θ					
$y = \sin \theta$					