

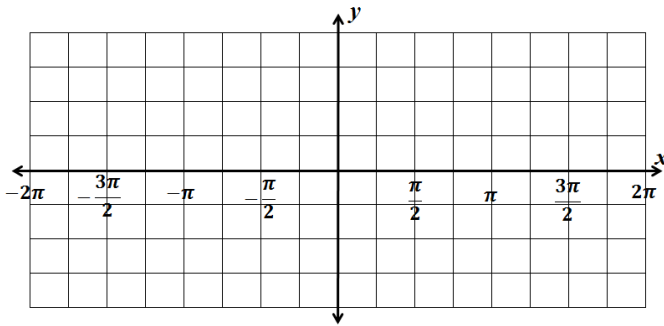
3.5 Sinusoidal Functions

AP Precalculus

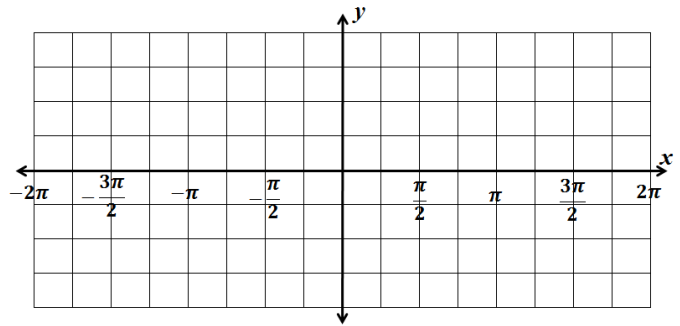
Name: _____

Graph the trig function.

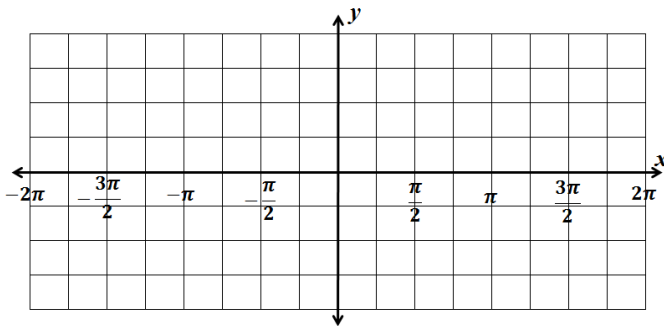
1. $f(\theta) = 3 \sin \theta$



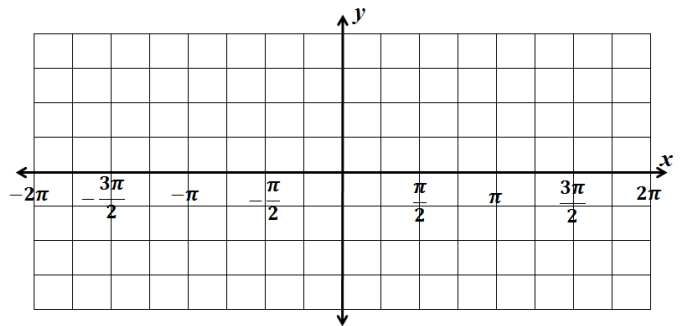
2. $y = -1.5 \cos x$



3. $y = -\sin x$

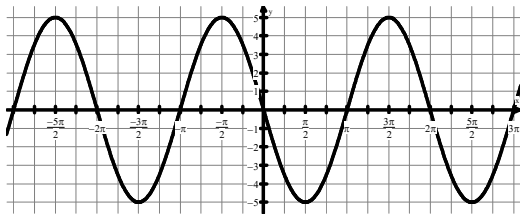


4. $f(\theta) = 3 \cos \theta$



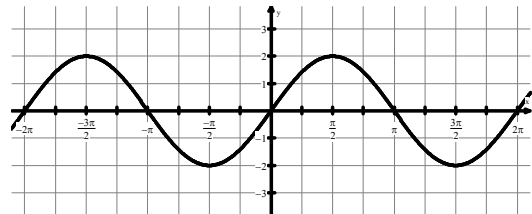
Write the equation of the following sine curves.

5.



$y =$ _____

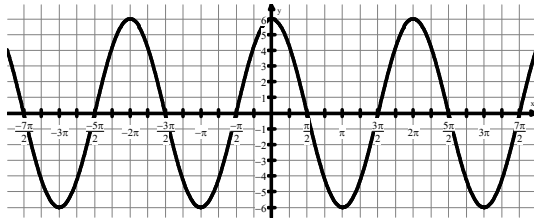
6.



$y =$ _____

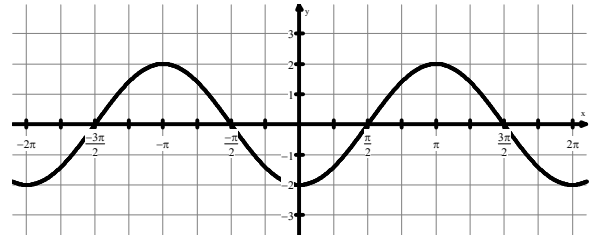
Write the equation of the following cosine curves.

7.



$y =$ _____

8.



$y =$ _____

For each problem, the sinusoid has been vertically shifted and has the given maximum and minimum values. Write the equation of the midline for the sinusoid AND find the amplitude.

9.

Max value: 2
Min value: -6

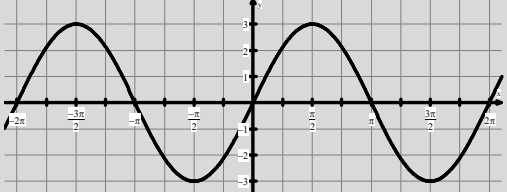
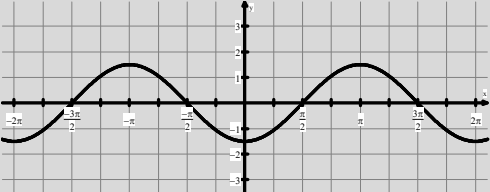
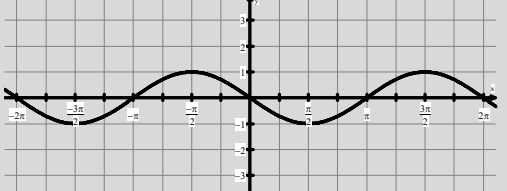
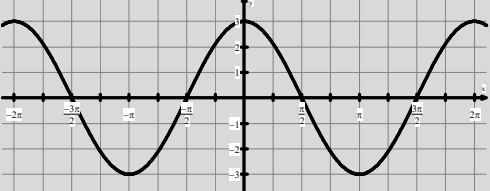
- What is the equation of the midline?
- What is the amplitude?

10.

Max value: 13
Min value: 6

- What is the equation of the midline?
- What is the amplitude?

Answers to 3.5 CA #1

<p>1.</p> 	<p>2.</p> 				
<p>3.</p> 	<p>4.</p> 				
<p>5. $y = -5 \sin x$</p>	<p>6. $y = 2 \sin x$</p>	<p>7. $y = 6 \cos x$</p>	<p>8. $y = -2 \cos x$</p>	<p>9a. $y = -2$ 9b. 4</p>	<p>10a. $y = 9.5$ 10b. 3.5</p>