

3.1 Periodic Phenomena

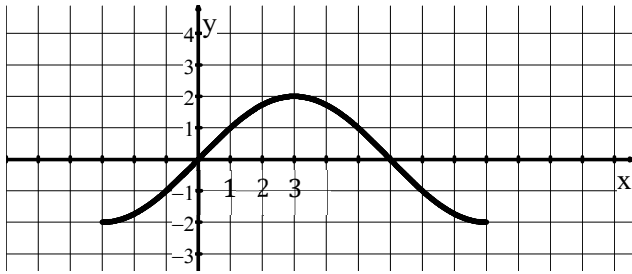
AP Precalculus

Name: _____

CA #1

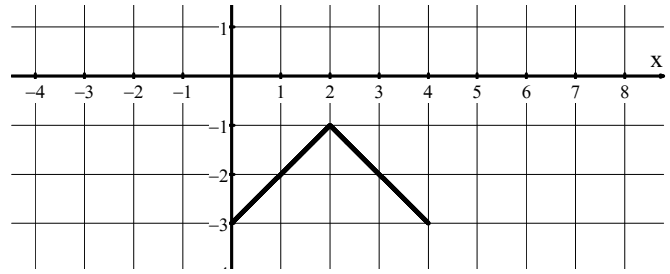
The following graphs show one period of a periodic function. Sketch the rest of the graph on the given axes and answer any questions that follow.

1.



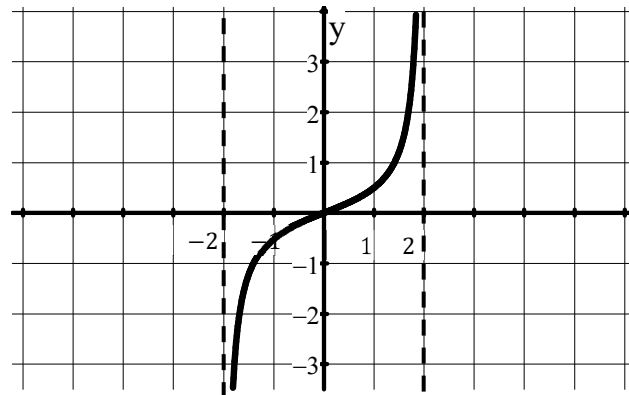
- a. Is the function increasing, decreasing or both on the interval $45 < x < 51$?
- b. Is the function concave up, concave down, or both on the interval $12 < x < 18$?
- c. Is there a relative max, relative min, or neither at the point $x = 33$?

2.



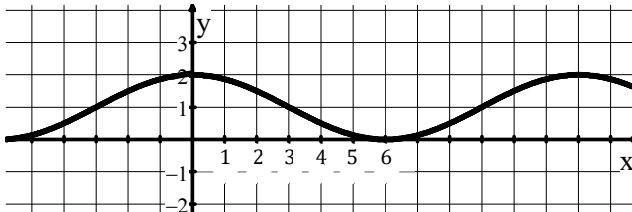
- a. Is the function increasing, decreasing or both on the interval $38 < x < 40$?
- b. Is there a relative max, relative min, or neither at the point $x = 16$?

3.



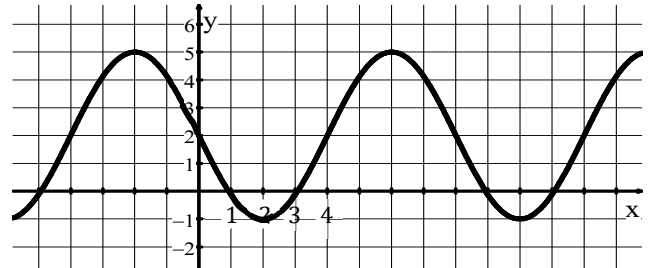
Identify the length of the period for each function.

4.



Period = _____

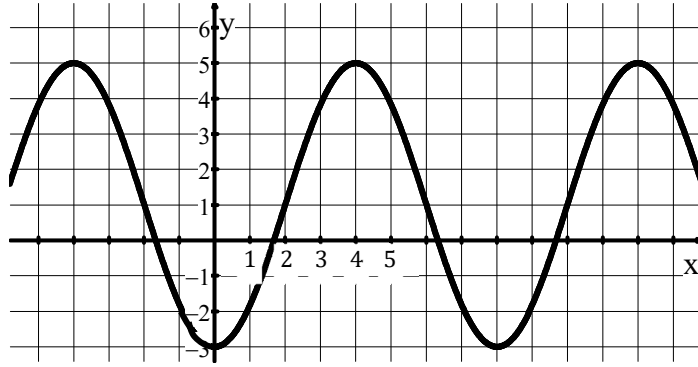
5.



Period = _____

Identify the length of the period for each function.

6.



Period = _____

Answers to 3.1 CA #1

<p>1.</p>	<p>1a. Increasing 1b. Concave down 1c. Relative minimum</p>	<p>2.</p>	<p>2a. Decreasing 2b. Relative min</p>
<p>3.</p>	<p>4. 12</p>	<p>5. 8</p>	<p>6. 8</p>