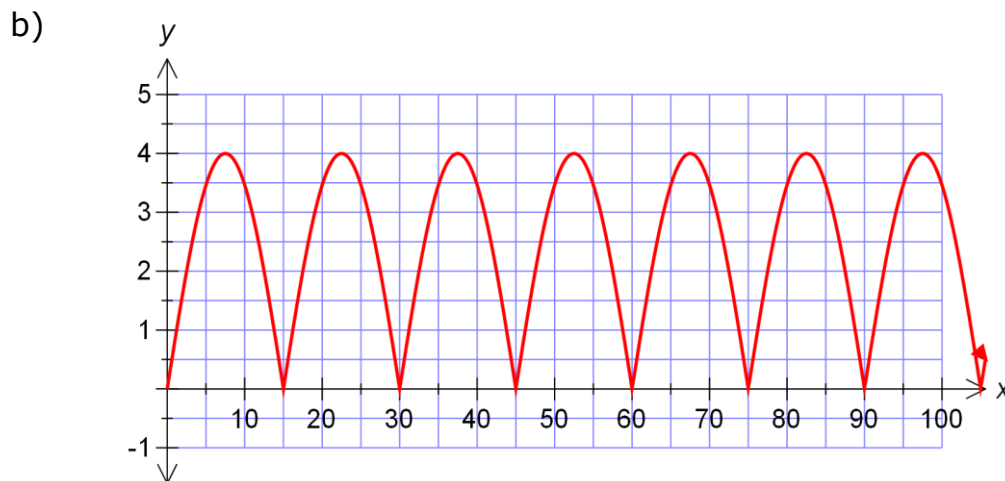
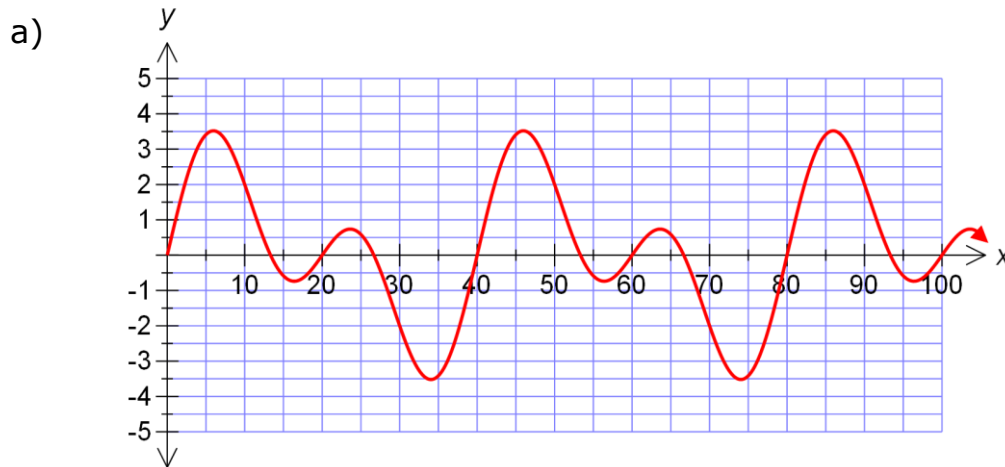


## M8LE1 Check Your Understanding Challenge

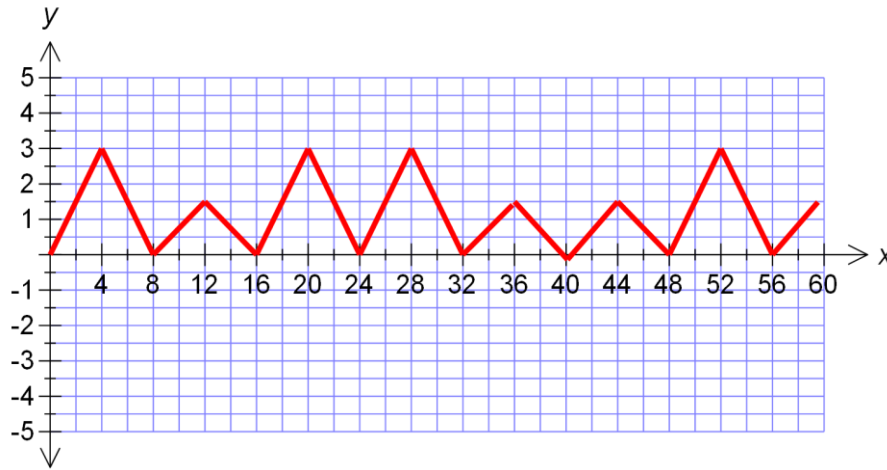
**Instructions:** Respond to each question below. Show the steps you followed to arrive at a solution – show your work. Be sure to save your work when done.

Feel free to use any method presented in this learning experience to solve each of the following questions. Make sure to get practice using different methods.

1. State whether each of the following graphs is periodic or not. If they are, state their period.



c)



2. Sketch (on paper or using graphing software) any periodic graph that has a period of 10 units.
  
3. Monthly ice cream sales at a local vendor are given in the table below:

<b>Monthly Ice Cream Sales</b>			
<b>Month</b>	<b>Sales</b>	<b>Month</b>	<b>Sales</b>
May '11	1020	Feb '12	280
Jun '11	1340	Mar '12	560
Jul '11	1500	Apr '12	820
Aug '11	1360	May '12	1000
Sep '11	980	Jun '12	1320
Oct '11	800	Jul '12	1480
Nov '11	550	Aug '12	1300
Dec '11	300	Sep '12	970
Jan '12	100	Oct '12	820

- a) Construct a graph to plot the data from the table above.
- b) Describe the period of the graph.
- c) Describe the range of the graph.
- d) Assume the pattern continues. How many monthly ice cream sales do you predict for May '13?

4. Convert the following radian measures into degrees to the nearest whole degree.

a)  $\frac{3\pi}{4}$

b) 4 radians

5. Convert the following degree measures into radians in terms of  $\pi$ .

a)  $120^\circ$

b)  $330^\circ$

6. Convert the following into radians to 3 decimal places.

a)  $200^\circ$

b)  $480^\circ$