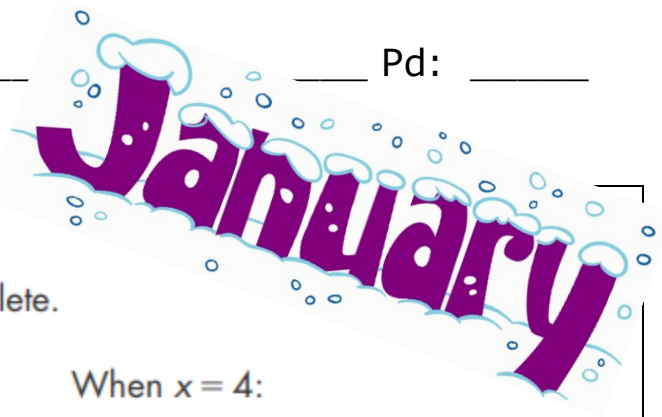Name: _____ Date: ____ _____ ____ Pd: _____

Homework - Math 8   Mrs. Shea

1. Find y when $x = -2$, $x = 0$, and $x = 4$. Complete.

   When $x = -2$:

   $y = x - 1$

   $y = -2 - 1$

   $y = -2 + (-1)$

   $y = \underline{}$

   When $x = 0$:

   $y = x - 1$

   $y = \underline{} - 1$

   $y = \underline{} + (-1)$

   $y = \underline{}$

   When $x = 4$:

   $y = x - 1$

   $y = \underline{} - 1$

   $y = \underline{}$

2. Complete the table of ordered pairs.

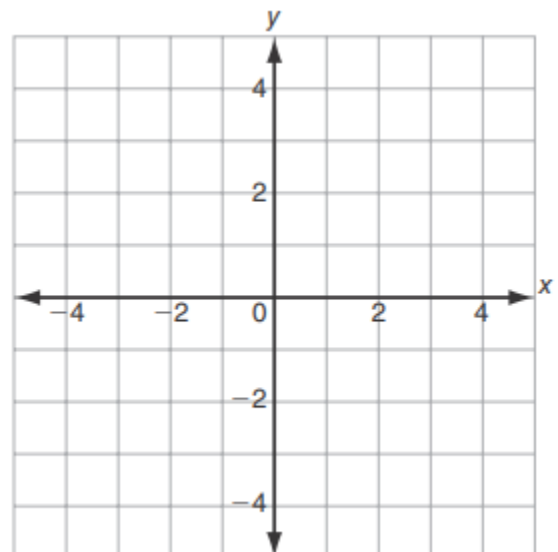 | x | y |
   |---|---|
   | −2 | −3 |
   | 0 | |
   | 4 | |
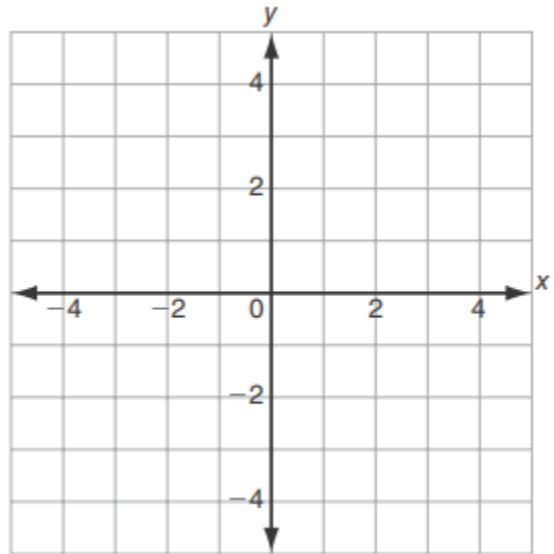
3. Plot each ordered pair.

4. Draw a line through the points. If the points are not on a line, check your work above.

Graph $y = -2x$ by doing the following.

5. Complete the table of ordered pairs for the equation $y = -2x$.
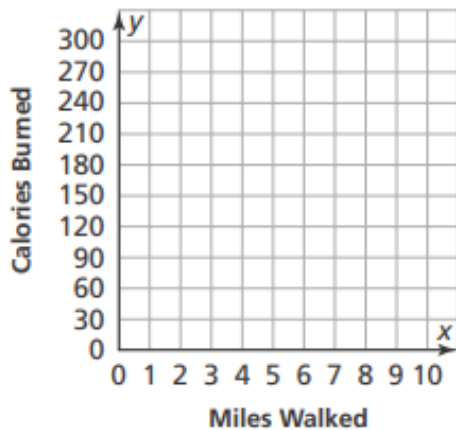
x	y
−2	
0	
2	

6. Plot each ordered pair.

7. Draw a line through the points. If the points are not on a line, check your work above.

3. Marcus records the total number of Calories burned after each mile he walks.

a. Graph the ordered pairs from the table.

Exercise



Calories Burned vs Miles Walked

b. Is the relation a function? Explain.

Miles Walked (x)	1	2	3
Calories Burned (y)	97	194	291

4. The relationship between the amount of powdered fertilizer, x, needed to make y gallons of liquid fertilizer is shown in the table. Is the relation a function? Use the graph to support your answer.

x	0	6	12	18
y	0	4	8	12

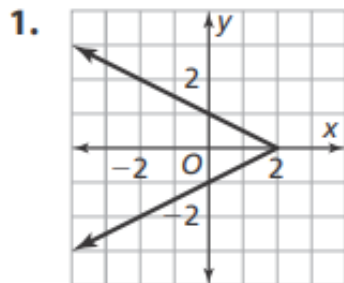Liquid Fertilizer (gal) vs Powdered Fertilizer (tsp)
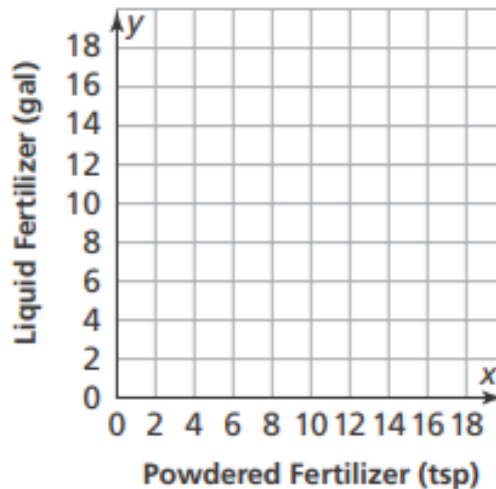
5. Robert swims a lap in the pool. His coach graphs his distance from the starting block. Ⓒ MP.3
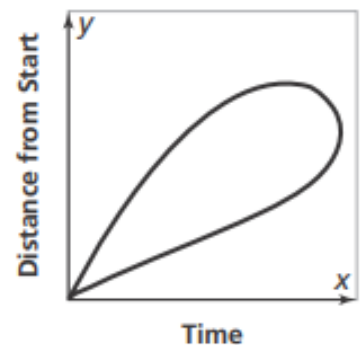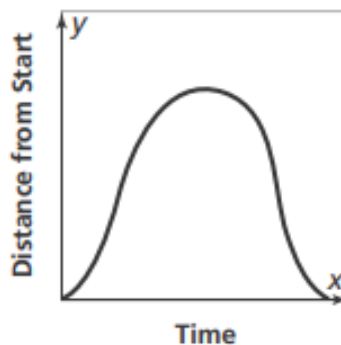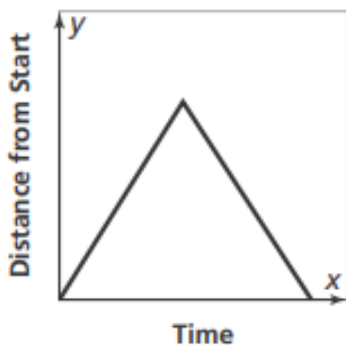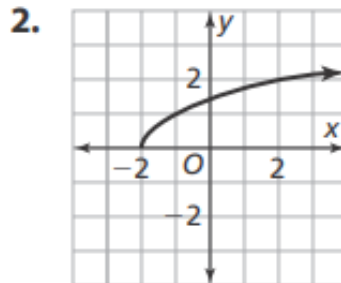

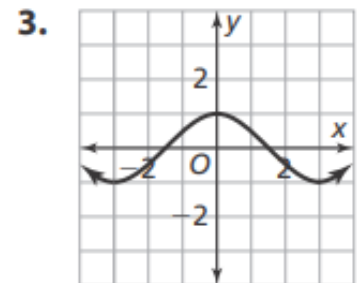**a.** Determine whether each graph is a function. Justify your answer.

b. Construct Arguments Which graph must be incorrect? Explain.
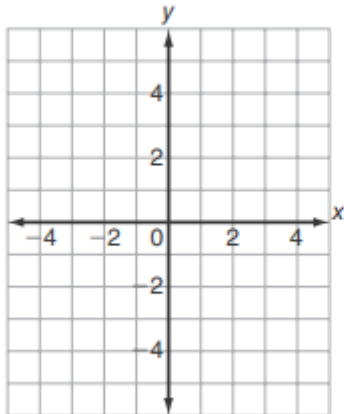
1.

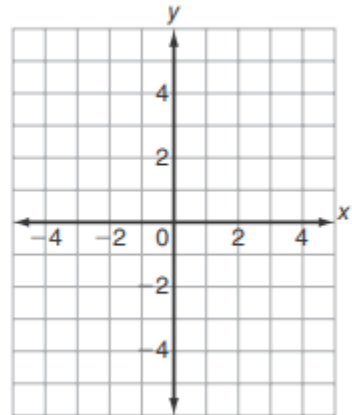function   not a function

2.

function   not a function

3.

function   not a function

8. $y = x + 2$

x	y
−4	
0	
2	

9. $y = 2x$

x	y
−2	
0	
2	

10. $y = -3x$

x	y
−1	
0	
1	
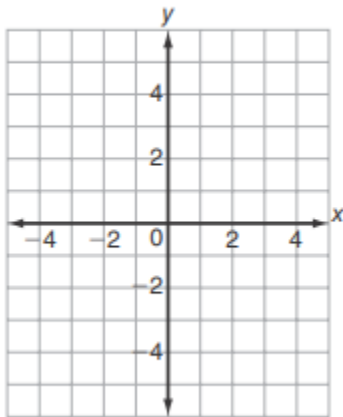
11. $y = 2 - x$

x	y
−2	
0	
3	
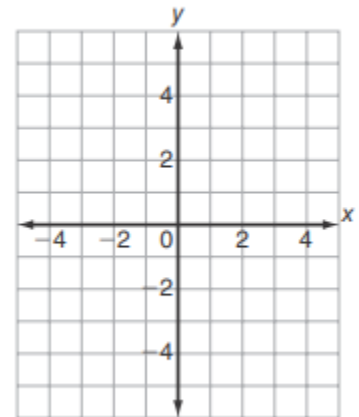
4. The table shows the relationship between the edge length, x, of a cube and its surface area, y. Graph the relation. Is the relation a function? If yes, is it a linear function?

Edge Length, x	Surface Area, y
1	6
2	24
3	54
4	96