

Name: _____



Date: _____

Notes

Algebra Section 1.7

Pages 43-48



Goal: "I will graph ordered pairs (x, y) "

"I will graph functions and visualize trends"

"Determine if a graph represents a function based on the 'vertical line test'"

Graphing Functions:

Example:

Graph the function $y = 3x - 2$ with a domain (input) of 0, 1, 2, 3.

Make a table with the given domain. Input each value to find the output and complete the table

Input (x)	0	1	2	3
Output (y)	-2	1	4	7

$$y = 3x - 2 \text{ for } x=0$$

$$y = 3 \cdot 0 - 2$$

$$y = 0 - 2$$

$$y = -2$$

$$y = 3x - 2 \text{ for } x=1$$

$$y = 3 \cdot 1 - 2$$

$$y = 3 - 2$$

$$y = 1$$

$$y = 3x - 2 \text{ for } x=2$$

$$y = 3 \cdot 2 - 2$$

$$y = 6 - 2$$

$$y = 4$$

$$y = 3x - 2 \text{ for } x=3$$

$$y = 3 \cdot 3 - 2$$

$$y = 9 - 2$$

$$y = 7$$

Write coordinate pairs with the given domain and range

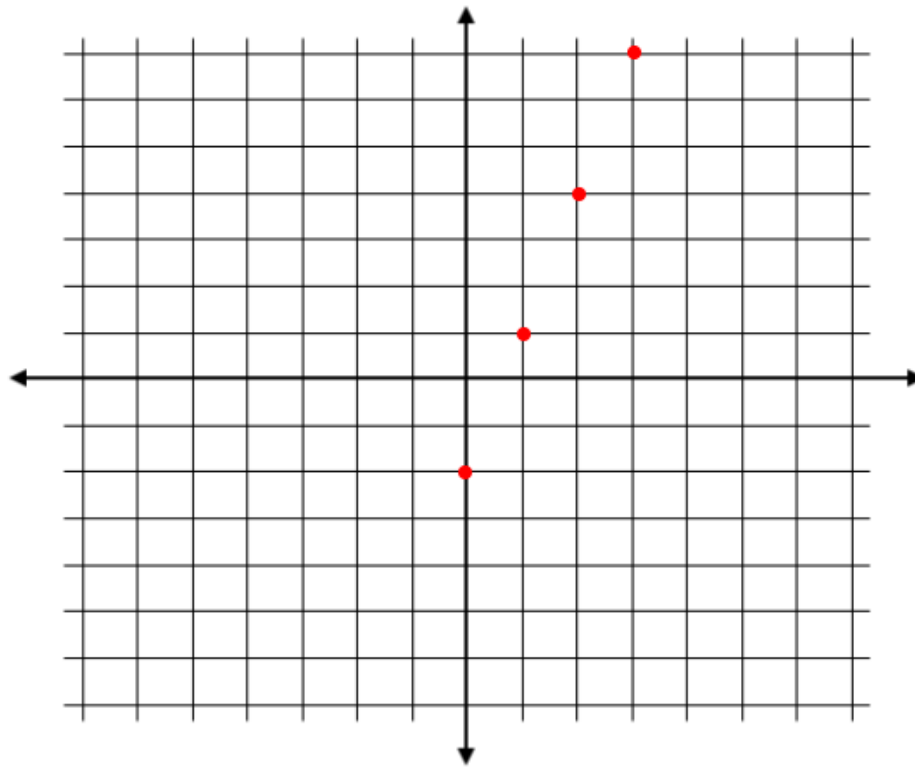
(0,-2)

(1,1)

(2,4)

(3,7)

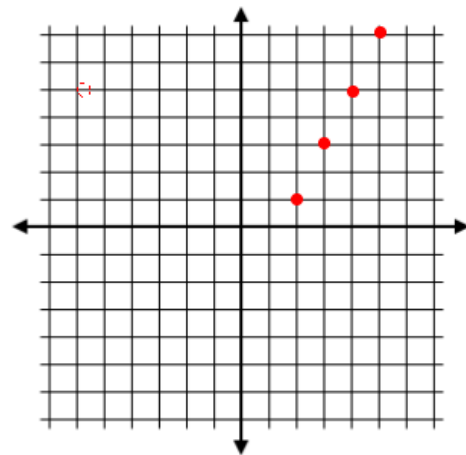
Plot the points



Try These:

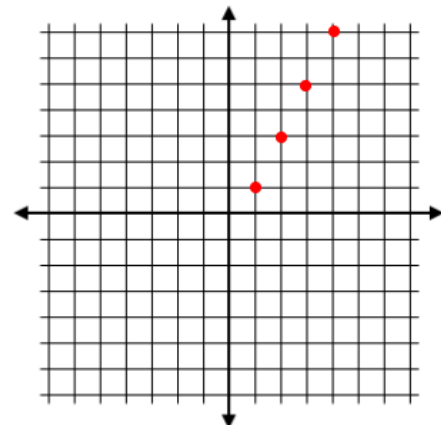
a) Graph the function $y = 2x - 3$
with a domain of 2, 3, 4, 5

Input	2	3	4	5
Output	1	3	5	7

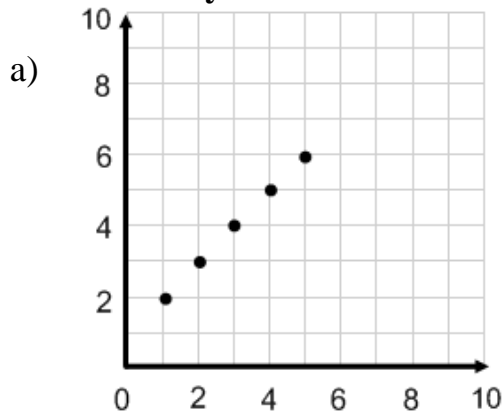


b) Graph the function $y = 2x - 1$
with a domain of 1, 2, 3, 4, 5

Input	1	2	3	4	5
Output	1	3	5	7	9



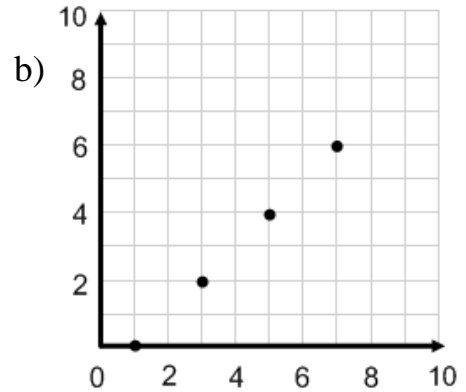
For each graph given, write a rule for the function.
Then identify the domain and range.



Make a table first.

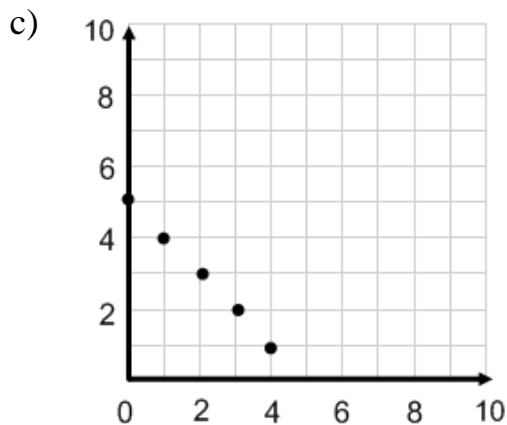
Input	1	2	3	4	5
Output	2	3	4	5	6

Rule: $y = x + 1$
Domain: 1, 2, 3, 4, 5
Range: 2, 3, 4, 5, 6



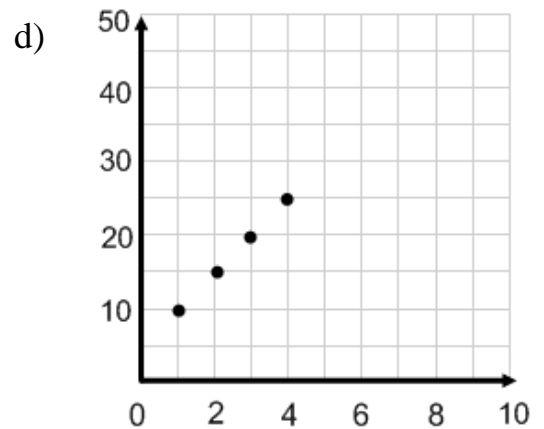
Input	1	3	5	7	9
Output	0	2	4	6	8

Rule: $y = x - 1$
Domain: 1, 3, 5, 7
Range: 0, 2, 4, 6



Input	0	1	2	3	4
Output	5	4	3	2	1

Rule: $y = 5 - x$
Domain: 0, 1, 2, 3, 4
Range: 5, 4, 3, 2, 1



Input	1	2	3	4	5
Output	10	15	20	25	30

Rule: $y = 5x + 5$
Domain: 1, 2, 3, 4
Range: 10, 15, 20, 25