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 of 0, 1, 2, 3.

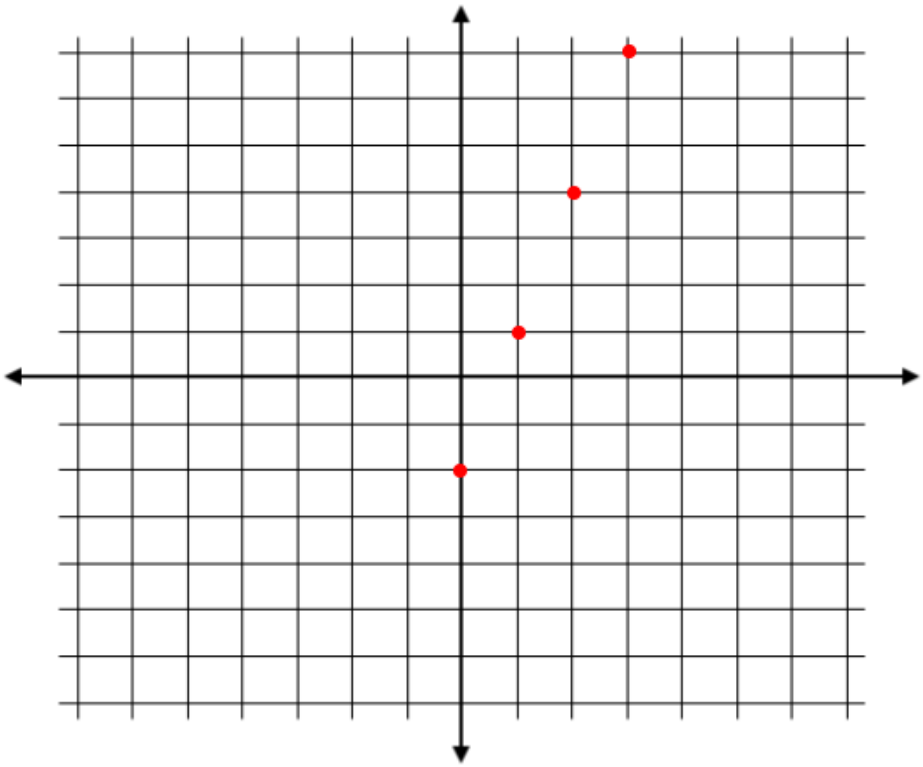
Make a table with the given domain and input each value to find the output and complete the table

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

Write coordinate pairs with the given domain and range

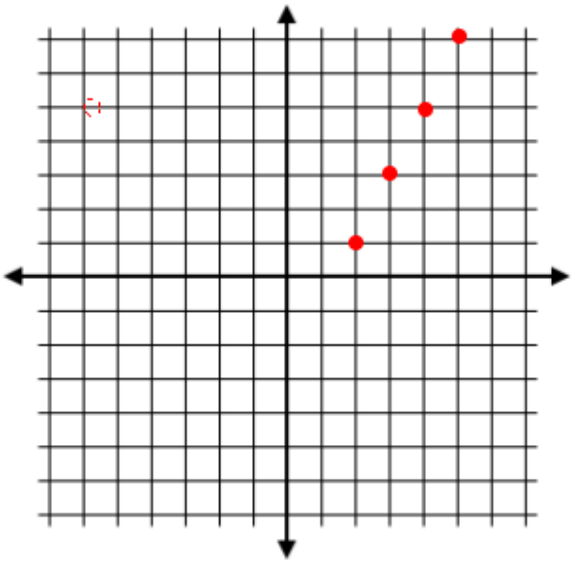
(0 , -2) (1 , 1) (2 , 4) (3 , 7)

Plot the points

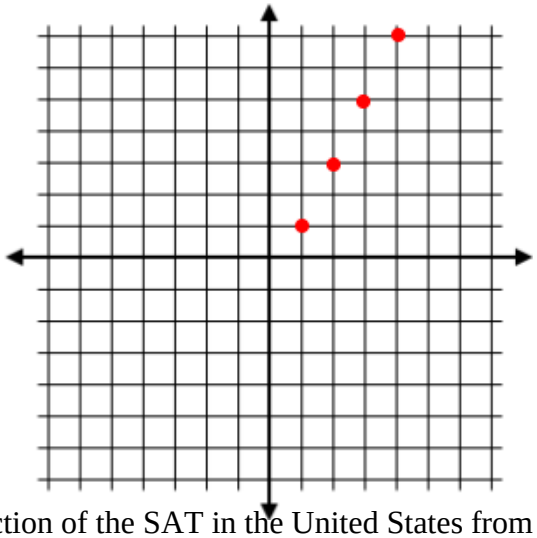


Try These:

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

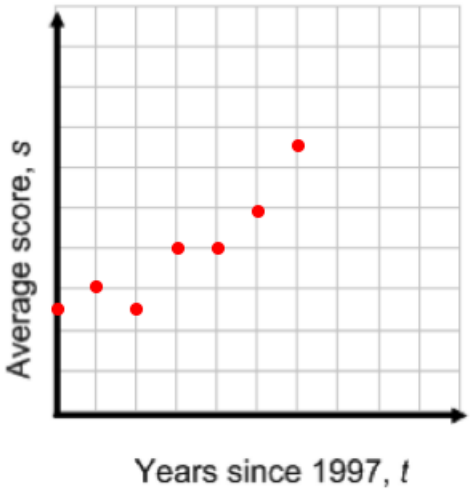


b) Graph the function $y = 2x - 1$ with a domain of 1, 2, 3, 4, 5



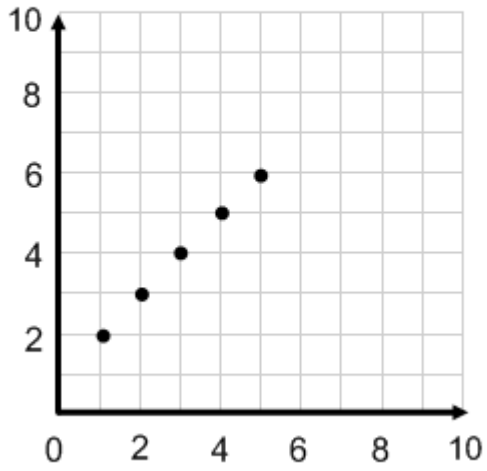
c) The table shows the average score, s, on the mathematics section of the SAT in the United States from 1997 to 2003 as a function of time, t, since 1997. In the table, 0 corresponds to the year 1997, 1 to 1998 and so on. Graph the function. What trend, if any, do you notice?

Years since 1997, t	0	1	2	3	4	5	6
Average score, s	511	512	511	514	514	516	519



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

a)

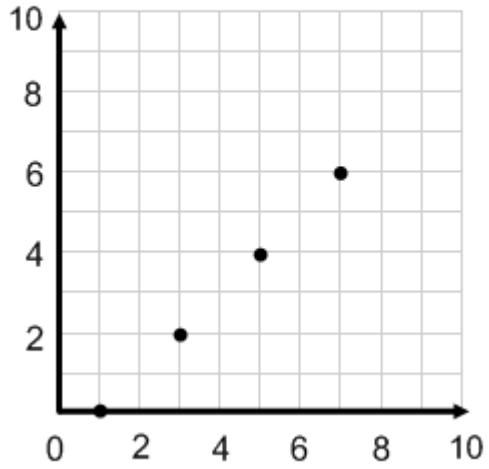


Make a table first

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

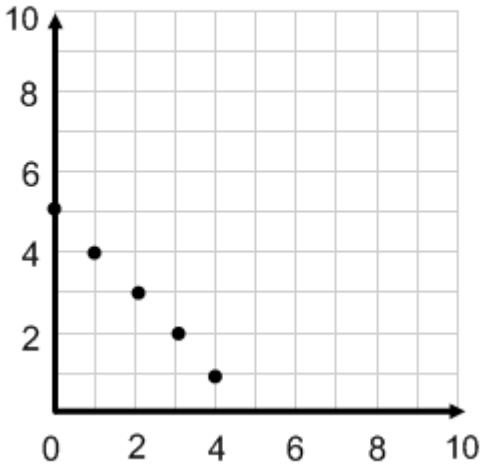
Rule: $y = x + 1$
Domain: 1, 2 ,3 ,4 ,5
Range: 2, 3, 4, 5, 6

b)



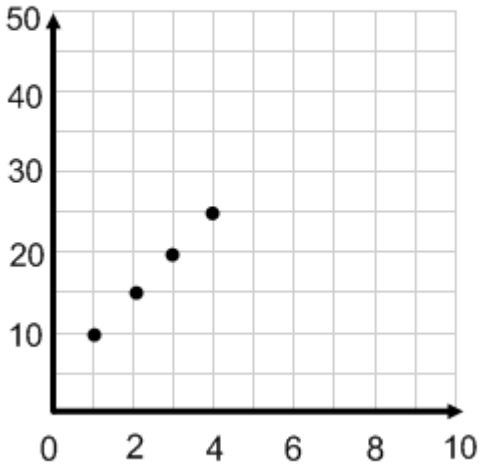
Rule: $y = x - 1$
Domain: 1, 3, 5, 7
Range: 0, 2, 4, 6

c)



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

d)



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