Name:
Date: $\qquad$
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 $y=3 x-2$ 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) |  |  |  |  |

Write coordinate pairs with the given domain and range
( , )
( , )
( , )
( , )

Plot the points


## Try These:

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



Years since 1997, $t$

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

b)


Make a table first

| Input |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Output |  |  |  |  |  |

c)

d)


