

Math 9

Name: _____

4.3 – Linear Relations II

Date: _____

Warm Up

1. a) Determine if each of the TOVs given below represents a **LINEAR** or **NON-LINEAR** relation.

A.

x	y
-2	-1
-1	2
0	5
1	8

B.

<i>time</i>	<i>Temp</i>
0	9
1	7
2	5
4	3
5	1

C.

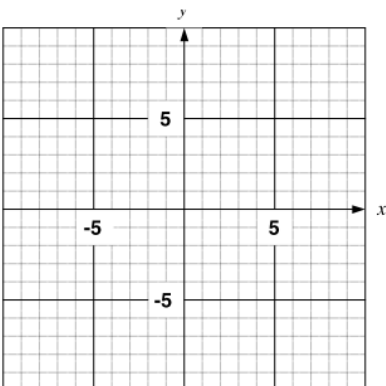
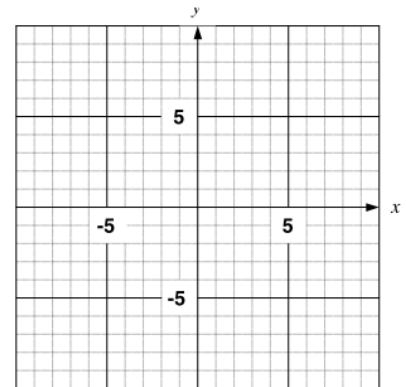
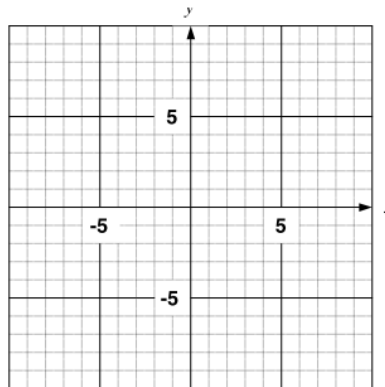
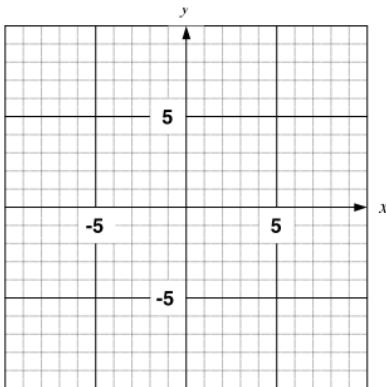
<i>time</i>	<i>ht.</i>
0	0
1	2
2	4
3	7

D.

<i>time</i>	V
0	10
2	4
4	-2
6	-8

b) Explain how to determine if a TOV represents a Linear or Non-Linear relation.

2. a) Sketch the graphs of each of the relations *A* to *D*.

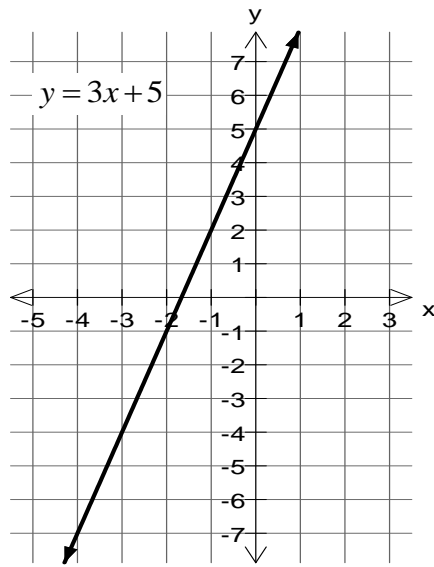


b) Explain how to determine if a graph is a Linear or Non-Linear relation.

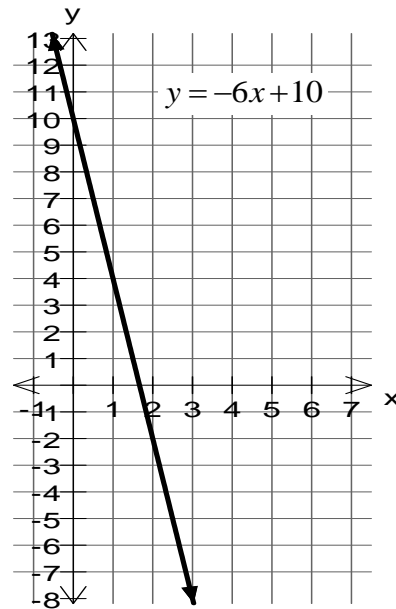
c) Determine the equations that model relations *A* and *D*.

How to Find the Equation of the Graph of a Linear Relation.

Given below are the graphs, TOVs, and equations of relations A and D that we looked at earlier.



x	y
-2	-1
-1	2
0	5
1	8



time	V
0	10
2	4
4	-2
6	-8

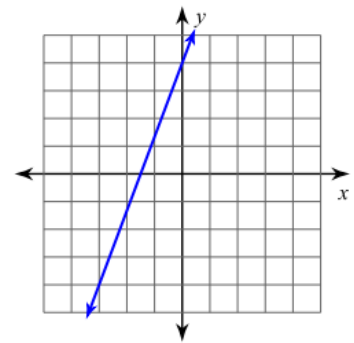
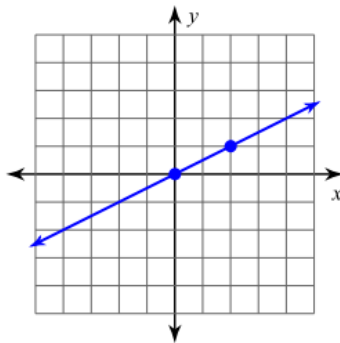
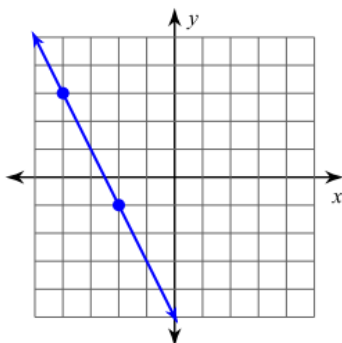
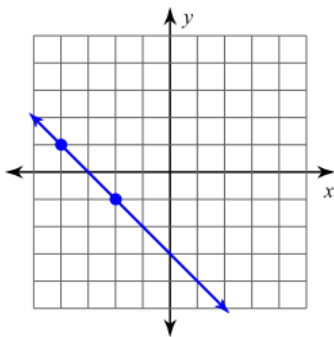
Notice that the equation of a Linear Relation is written in the form: _____

How can we obtain the values for the **coefficient of x** and the **constant** from:

TOV:

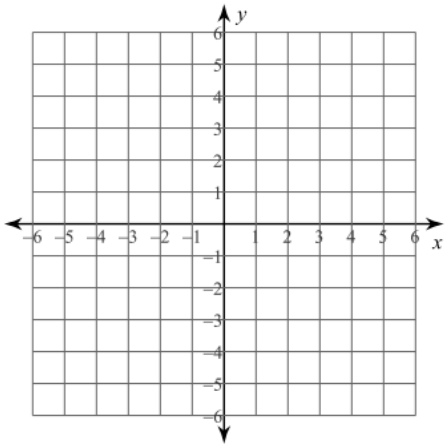
Graph:

Determine the equations of the following Linear Relations. Write the equation in the form: $y = mx + b$

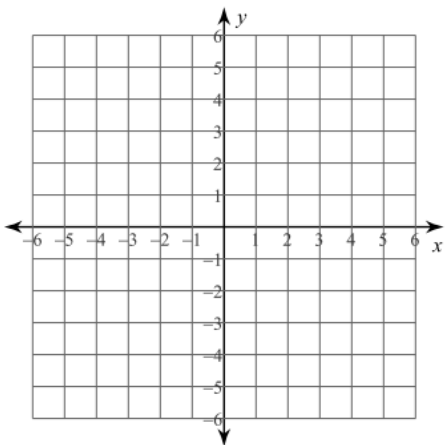


Sketch the graphs for the following Linear Equations:

$$y = 2x + 3$$



$$y + x = -1$$



$$2x + y + 2 = 0$$

