

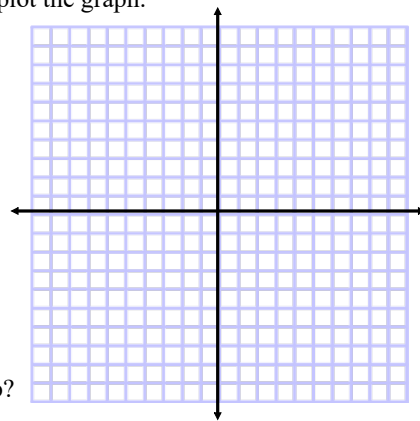
Linear vs Non-Linear Relationships

Learning Goal:

By the end of the day I will be able to recognize a non-linear relationship by its graph, its equation and its table of values.

Determine the First Differences and plot the graph.

x	y
-2	7
-1	4
0	1
1	-2
2	-5
3	-8



What is the slope of this relationship?

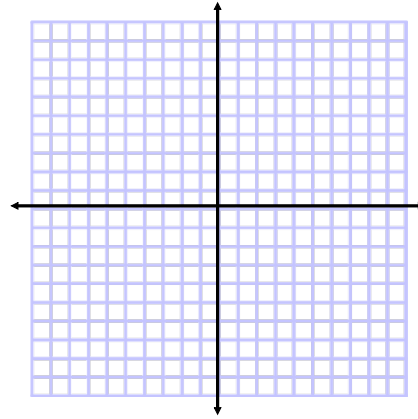
What is the y intercept?

What is the equation that relates x and y together?

Use a full sentence to describe the relationship between x and y.

Determine the First Differences and plot the graph.

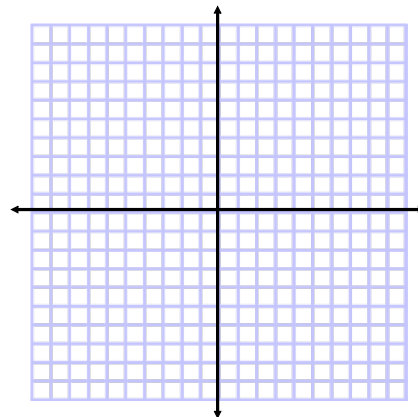
x	y
-2	4
-1	1
0	0
1	1
2	4
3	9



Use a full sentence to describe the relationship between x and y.

Determine the First Differences and plot the graph.

x	y
0	1
1	2
2	4
3	8
4	16



Use a full sentence to describe the relationship between x and y.

Recognizing Non-Linear Relations:

1. Graphically - the graph does NOT plot as straight line
2. Equation - there is an exponent greater than ONE on any variable
3. Table of Values - the First Differences are NOT constant

The value of a \$30,000 car decreases by 10% every year.
Create a table of values for the price of a the car for 6 years.

Year	Price
0	
1	
2	
3	

Consolidation Questions:

Grade 9 Academic - page 179 #1, 2, 3, 6, 7