General

Independent variable is defined as:

Dependent variable is defined as:

The **x**-axis is the _____ variable.   The **y**- axis is the _____ variable.

What is a slope?

Graph 1:

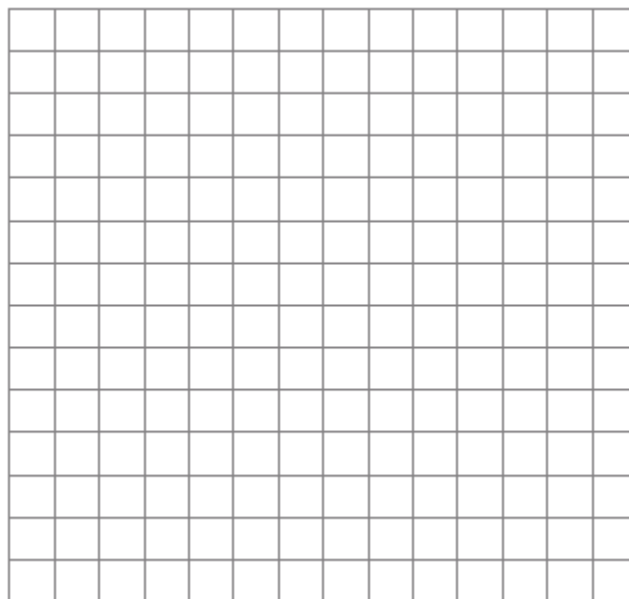| Table 1: Density of Magnesium	
Mass (g)	Volume (cm^3)
17	10
34	20
51	30
68	40
85	50

The equation for this graph is: y=

The slope for this graph is:

The independent variable is:

The dependent variable is:

What observations can be made about graph 1:
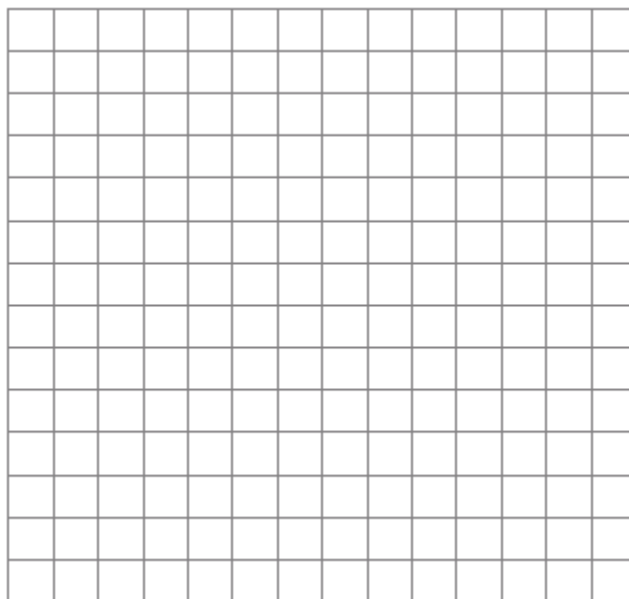
Graph 2:

Table 2: Boyle's Law	
Pressure (kPa)	Volume (cm^3)
100	500
150	333
200	250
250	200
300	166
350	143
400	125
450	110

The independent variable is:

The dependent variable is:

What observations can be made about graph 2:

Conclusion:

What are the differences in graph 1 & graph 2:

Now, read pages 55-57

Graph 1 is known as being_____. Which means in simplistic terms that:

Graph 2 is known as being _____. Which means in simplistic terms that:

Graph 1: Density of Magnesium

Mass (g)

Volume (cm^3)

Graph 2: Boyle's Law

Volume (cm^3)

Pressure (kPa)

Practice #1

Table 3: Cesium-137 Half- life	
Amount of sample (kg)	Time (years)
1.00	30.2
0.5	60.4
0.25	90.6
0.125	120.8
0.0625	151

The independent variable is:

The dependent variable is:

What observations can be made about graph 3:

This is a _____ graph.

Practice #2

Table 4: Solubiltity of KClO3	
Temperature (°C)	Solute per 100g of H_2O
0	5
20	8
40	15
60	28
80	45
100	60

The independent variable is:

The dependent variable is:

What observations can be made about graph 4:

This is a _____ graph.

Practice #3

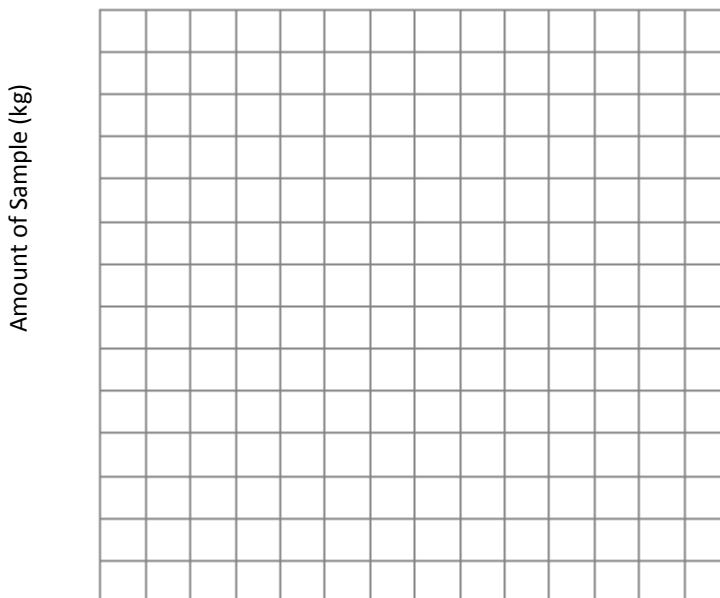| Table 5: Charles's Law @ 1atm for 0.1 mole of $H_2(g)$	
Volume (L)	Temperature (°C)
2.24	0.000
2.65	50.00
3.06	100.0
3.47	150.0

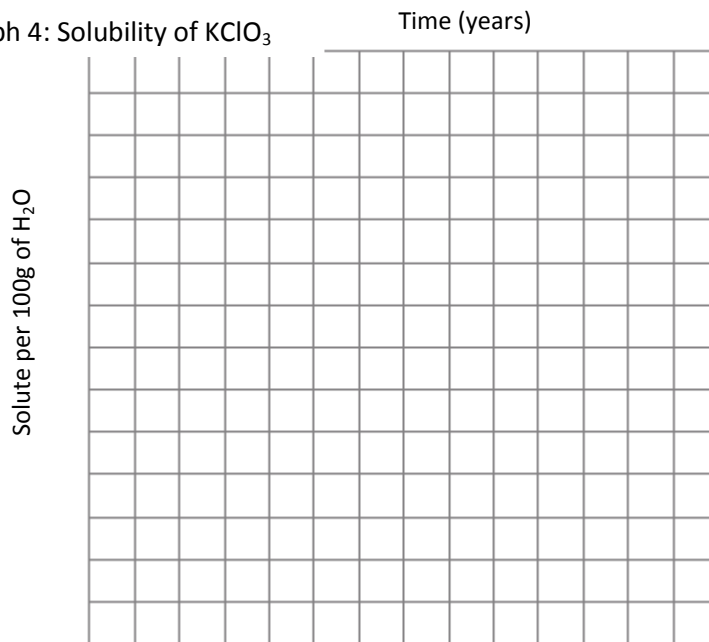The independent variable is:

The dependent variable is:

What observations can be made about graph 5:

This is a _____ graph.

Graph 3: Cesium 137 Half Life

Amount of Sample (kg)

Time (years)

Graph 4: Solubility of $KClO_3$

Solute per 100g of H_2O

Temperature (°C)

Graph 5: Charles' Law of H_2 (g)

Volume (L)

Temperature (°C)