**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block:\_\_\_\_\_\_\_\_\_\_ Graphing Data**

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: Density of Magnesium

**Graph 1:**

|  |
| --- |
| Table 1: Density of Magnesium  |
| Mass (g) | Volume (cm3) |
| 17 | 10 |
| 34 | 20Mass (g) |
| 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 LawVolume (cm3) |
| Pressure (kPa) | Volume (cm3)Graph 2: Boyle’s Law |
| 100 | 500 |
| 150 | 333 |
| 200 | 250 |
| 250 | 200 |
| 300 | 166Volume (cm3) |
| 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***

Pressure (kPa)

Graph 1 is known as being\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Which means in simplistic terms that:

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

**Practice #1**

Graph 3: Cesium 137 Half Life

Amount of Sample (kg)

|  |
| --- |
| 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 KClO3Graph 4: Solubility of KClO3Time (years) |
| Temperature (°C) | Solute per 100g of H2O |
| 0 | 5 |
| 20 | 8 |
| 40 | 15Solute per 100g of H2O |
| 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 H2(g)Temperature (°C)Graph 5: Charles’ Law of H2 (g) |
| Volume (L) | Temperature (°C) |
| 2.24 | 0.000 |
| 2.65 | 50.00 |
| 3.06 | 100.0Volume (L) |
| 3.47 | 150.0 |

The independent variable is:

The dependent variable is:

What observations can be made about graph 5:

This is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ graph.

Temperature (°C)