Name: $\qquad$ Date: $\qquad$ Period: $\qquad$

## Section 10-3 - The Gas Laws

Before you leave for the day, be able to identify and explain the difference between a direct and inverse relationship between Pressure, Volume and Temperature of a gas.

Record the amount of each gas species you added: Heavy: $\qquad$ Light: $\qquad$
After the gas has been added, hit the pause button and record the pressure: $\qquad$

What are the graduations on the ruler? (How much is each small notch worth?) $\qquad$

## Scenario 1:

|  | Trial 1 | Trial 2 | Trial 3 | Trial 4 | Trial 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Volume (L) |  |  |  |  |  |
| Pressure (atm) |  |  |  |  |  |

Now with the data you gathered, sketch Pressure(x) vs. Volume(y) in the following graph. Label the graph appropriately. Draw a line best connecting all of the points.


Describe the relationship between Pressure and Volume.
(When one increases, what happens to the other?)

Name: $\qquad$ Date: $\qquad$ Period: $\qquad$

Scenario 2:

|  | Trial 1 | Trial 2 | Trial 3 | Trial 4 | Trial 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Volume (L) |  |  |  |  |  |
| Temperature (K) |  |  |  |  |  |

Now with the data you gathered, sketch Temperature (x) vs. Volume (y) in the following graph. Label the graph appropriately. Draw a curved line best connecting all of the points.


Describe the relationship between Temperature and Volume. (When one increases, what happens to the other?)

Name: $\qquad$ Date: $\qquad$ Period: $\qquad$

## Scenario 3:

|  | Trial 1 | Trial 2 | Trial 3 | Trial 4 | Trial 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Temperature (K) |  |  |  |  |  |
| Pressure (atm) |  |  |  |  |  |

With the data you gathered, sketch Temperature (x) vs. Pressure (y) in the following graph. Label the graph appropriately. Draw a line best connecting all of the points.


Describe the relationship between Temperature and Pressure. (When one increases, what happens to the other?)

