P vs V

1. Collect 5 data points at various volumes.

2. Do not go below 5 mL.

3. Select a volume and hold it constant.

4. Tell logger pro to collect data.

5. When complete select a different volume and collect the data.

6. Create a data table and a graph using logger pro.

 X axis – volume (mL)

 Y axis – Pressure (kPa)

P vs n

7. Collect 5 data points at various amount of particles.

8. Unscrew the syringe.

9. Select a volume and reattach the syringe.

10. Move plunger to 10 mL to maintain a constant volume.

11. Create a data table and a graph using logger pro.

 X Axis – amount (???)

 Y Axis – Pressure (kPa)

P vs T

12. Collect 5 data points at various temperatures.

13. Attach Erhlenmeyer flask w/ gas pressure connector.

14. Attach temperature sensor as well.

15. Close stopcock on the valve.

16. Place flask in the warmest water bath first.

17. Wait to the temperature and pressure have stabilized then have logger pro collect the data.

18. When complete move the flask to the next warmest water bath and repeat data collection.

19. Create a data table and a graph using logger pro.

 X Axis – Temperature (C)

 Y Axis – Pressure (kPa)

For each Experiment you need to have the following evaluation:

 1. Graph of data (P vs V), (P vs 1/V), (P vs n), (P vs T)

 2. Mathematical description of the data (Use Y = mX + b)

 3. Give a written statement of the relationship between the variables involved.

 4. Particle drawing representing the relationship between the variables.