Post-Lab Questions

1. If your volume measurements for each temperature were smaller than expected, but they fit on a straight line, would the graph be affected, and if so how? Explain.

2. Would the accuracy and precision be affected in the previous situation, and if so how? Explain.

3. What do you think the reason could be for smaller volume readings than expected?

4. Rearrange the Ideal Gas Law ($pV = nRT$) to show that it supports Charles' Law.

5. Using the rearranged form of the Ideal Gas Law, what is the value of the slope and intercept in terms of variable(s) and constant(s) (not the actual numerical values)?

6. Assume you repeat the experiment with a 60-ml syringe set to 30.0 mL at the beginning. How would the graph look different, if at all? Explain.

7. Assume you repeat the experiment with CO_2 instead of air. How would the graph look different, if at all? Explain.