Laboratory Report Guideline – Gas Laws

1. Cover Page – Title of the Report, Name, Partner’s name, Date, TA name

2. Data
   - the atmospheric pressure value
   - letter of the unknown NaNO₂
   - the data tables for Boyle's, Charles's Laws, and the results for the production of N₂ gas

3. Calculation
   - an example of the calculation for Boyle's Law – PV calculation
   - an example of the calculation for Charles's Law – V/T calculation
   - how was the experimental value of absolute zero determined
   - calculate the percent difference
   - Boyle's Law and Charles's Law graphs
   - calculations for the N₂ gas – see page 27 of the lab manual
   - calculate the average percent yield for the N₂ production for pure NaNO₂ and the unknown sample

4. Results and Discussion
   - discuss whether the graphs look like expected or not.
   - compare the literature and experimental values of absolute zero (explain what possible errors might contribute to the deviation)
   - compare the theoretical and experimental values for N₂
   - discuss the experimental results for the unknown samples
   - general uncertainties from the experiment

5. Conclusion
   - give an overall summary of the experiment
   - answer the questions on page 25. Show the calculation for #5

6. References

Reminder: be sure not to use pronouns and make sure all your data tables and calculations have the appropriate units and significant figures