Laboratory Report Guideline

Rate Law

1. **Cover Page** – Title of the Report, Name, Partner’s Name, Date, TA Name, Section # [1 pt each]

2. **Data**
   - table of reactant volumes and the time required for the color to change [4]
   - table of final concentrations, the rate of each run, the average and standard deviation of the run #1s, and the corresponding rate constants and their average and standard deviation [10]
   - table of concentration logarithms [4]
   - graphs of log [ ] vs log (rate) – one for each reactant – I⁻, H⁺, BrO₅⁻ [4 pts each]

3. **Calculation**
   - show one set of calculations for one of the reactants [10]

4. **Results and Discussion**
   - discuss the average and standard deviation for run #1. [5]
   - discuss the average and standard deviation of the rate constant values [5]
   - use these values to discuss of the reproducibility of the data [5]

5. **Conclusion**
   - give an overall summary of the experimental results [10]
   - answer questions on page 48 (be specific, especially question 4) (question 3 just suggest one way) [5 pts each]

6. **References** [4]

7. **Blue sheet** - neatly written [5]

Be sure to not use pronouns [-1 for every two pronouns] and that all the data and calculations have the correct units and the appropriate significant figures.