

CHEM 120
Fall 2009
Lab Quiz 8
Due Friday, December 18 at 5:00 PM

Name: _____

1. (5 Points) Report your pK_a for bromothymol blue and its uncertainty at 95% confidence to the instructor by 5:00 PM on Sunday, December 13. Results for the class will be posted on the class web page that evening. When you report your data, be sure to list all members of the lab group.

2. (20 Points) Attach the *Results* section from your lab notebook to this cover page. This must include your statistical analysis of the class data, a figure showing all of your spectra, and your graph of pH as a function of $\log ([In^-]/[HIn])$.

3. (5 Points) What is the pK_a for bromothymol blue based on the class data?

4. (5 Points) The accepted pK_a for bromothymol blue is 7.10. Calculate a percent error for both your data and the class data. This should also be in your *Results* section of your notebook!

Our % error: _____

Class % error: _____

5. (4 Points) Did the class precisely and accurately determine the pK_a of bromothymol blue? Explain.