

Name \_\_\_\_\_

Lab Day/time \_\_\_\_\_

## **Molar Solubility Pre-Lab Assignment**

1. What color change will you observe at the end point of the titration?
  
2. A 25.0 mL sample of magnesium hydroxide is titrated with 0.005 M HCl and 2 drops of methyl orange indicator. At the end point of the titration 13.2 mL of HCl has been added.
  - a. How many moles of hydroxide are present in the sample?
  
  - b. What is the concentration of hydroxide, in molarity?
  
  - c. What is the molar solubility of  $\text{Mg}(\text{OH})_2$ ? (Look at the equations in the Procedure as a guide.)
  
  - d. What is the  $K_{\text{sp}}$  for  $\text{Mg}(\text{OH})_2$ ?