

Name \_\_\_\_\_

**Required Pre Laboratory Assignment for Experiment 5: Reactions in Aqueous Solutions:  
Metathesis Reactions and Net Ionic Equations**

Due to your TA in lab before beginning this experiment.

**1. Read the entire Experiment and answer the following questions:**

- a. What are the three chemical processes that can lead to the removal of ions in solution and therefore serve as a driving force for a metathesis reaction to occur?

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- b. From the experiment, write a *molecular equation* that illustrates a specific example of *each* of the processes you listed above.

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- c. Write complete ionic and net ionic equations for one of your molecular equations above.

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3. Table 1 on page 51 of the lab manual is used to determine whether a precipitate forms in a reaction. From Table 1, what is the formula for the precipitate that forms when sodium carbonate reacts with calcium acetate? If no precipitate forms, write "none".

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4. When  $\text{H}_2\text{CO}_3$  and  $\text{H}_2\text{SO}_3$  are formed in metathesis reactions, they decompose to form gases. Write the equation for the decomposition of each of these substances. (Hint: the equations can be found on page 36 of the experiment's discussion).

