**Chemistry 20 Solution Stoichiometry - Precipitate Lab**

(3) Complete / neatly done

(1) **Purpose**:

1 Part B - to produce and collect a precipitate, and then compare theoretical and experimental

results

(5) **Background Information**:

1 *solution* - homogeneous mixture of a solute and a solvent

1 *reactant* - a chemical used in a reaction

1 *product* - a chemical produced in a chemical reaction

1 *precipitate* - a solid product formed via a chemical reaction

1 *filtrate* - the solution which goes through the filter paper

(2) **Experimental Design**:

1 *manipulated variable* - amount of sodium carbonate solution

1 *responding variable* - amount of precipitate collected

(4) **Procedure**:

1 *Ask the teacher for the required amounts of each solution*.

1 *Rinse pipet before collecting the second solution.*

1 *Weigh filter paper before use.*

1 *Rinse out the reactants beaker into the filter paper.*

(5) **Observations**:

1 Mass of filter paper

1 Mass of filter paper + precipitate

1 Mass of precipitate

1 The reaction produced a milky white precipitate.

1 Some of the precipitate stuck to the side of the reactants beaker.

**Conclusion**

(5) Part A

2 K2CO3 (aq) + CaCl2 (aq) → 2 KCl (aq) + CaCO3 (s)

3 calculation of theoretical mass

0.50 g of calcium carbonate

(5) Part B

2 Percent error calculation

1 Source of error -- some precipitate stuck to the beaker

2 Filtrate ions -- chloride and sodium ions

\_\_\_\_\_\_\_\_\_ out of  **30**