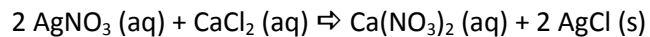


**Pre-AP Chemistry
Unit #11—Solutions**

Homework Part III

Using the following chemical reaction, please complete the problems.



1. Calculate the number of grams of AgCl formed when 0.200 liters of 0.200 M AgNO₃ reacts with an excess of CaCl₂.
2. How many grams of solid silver chloride can be precipitated from an aqueous silver nitrate solution by 200 mL of a solution of 0.50 M CaCl₂.
3. Calculate the milliliters of 2.0 M aqueous silver nitrate that can react with 216 grams of aqueous calcium chloride.
4. What volume, in milliliters, of 0.115 M aqueous calcium nitrate is produced when 50.0 mL of 0.0875 M aqueous solution of silver nitrate is used for the reaction?

5. A sample of 1.50 grams of AgNO_3 is mixed with 125 mL of 0.100 M CaCl_2 :
- A. What is the limiting reactant for the reaction?
- B. How many grams of silver chloride are produced from the available moles of the limiting reactant?
6. A solution of 100 mL of 0.200 M silver nitrate is mixed with a solution of 200.0 mL of 0.100 M calcium chloride solution.
- A. What is the limiting reactant for the reaction?
- B. How many grams of silver chloride are produced from the available moles of the limiting reactant?