

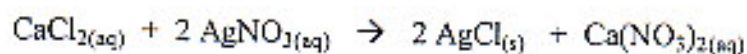
p. 1 version ①

CHM 151  
Quiz 5

Fall 2009  
Dr. Doug Sawyer

Name Key

1. Calculate the theoretical yield of AgCl (s) when 417 mL of .250 M CaCl<sub>2(aq)</sub> reacts with excess AgNO<sub>3</sub>. Show your work.



$$.250 \frac{\text{mole CaCl}_2}{\text{L}} \left( .417 \text{ L} \right) \left( \frac{2 \text{ mole AgCl}}{1 \text{ mole CaCl}_2} \right) \left( \frac{143.4 \text{ g AgCl}}{1 \text{ mole AgCl}} \right)$$

$$= 29.9 \text{ g AgCl}$$

↓ version 2

p 2 version (2)

CHM 151

Quiz 5

Fall 2009

Dr. Doug Sawyer

Name Key

1. Calculate the theoretical yield of AgCl (s) when 177 mL of .120 M  $\text{CaCl}_{2(aq)}$  reacts with excess  $\text{AgNO}_3$ . Show your work.



$$.120 \frac{\text{mole CaCl}_2}{\text{L}} \left( .177 \text{ L} \right) \left( \frac{2 \text{ mole AgCl}}{1 \text{ mole CaCl}_2} \right) \left( \frac{143.4 \text{ g AgCl}}{1 \text{ mole AgCl}} \right)$$

$$= 6.09 \text{ g AgCl}$$