

NAME: \_\_\_\_\_

Lab Section: 1(TuTh@3:30) 2(TuTh@6) 3(TuTh@9) 4(MW@1)CHM 101  
25 points, 20 mins.Fall 2008  
week 7**Basic Competency Quiz #4**  
Chemistry, 7<sup>th</sup> ed., Zumdahl & Zumdahl, 2.8 + 4.1-4.8

Wallace

revised 11/01/2008

*Unless otherwise specified, each question is worth 5 points.*

1. Complete the following table: (1 point each)

	Formula	Name
a.	$\text{Li}_2\text{CO}_3$	LITHIUM CARBONATE
b.	<del>Na</del> $\text{NaBr}$	sodium bromide
c.	$\text{K}_3\text{PO}_4$	POTASSIUM PHOSPHATE
d.	$\text{MgO}$	magnesium oxide
e.	$\text{Zn}_3\text{N}_2$	ZINC NITRIDE

2. Which of the following compounds are strong electrolytes? (Circle your answer[s]; 2 points.) For any that are strong electrolytes, write the cation(s) and anion(s) that are formed when these compounds are dissolved in water. (4 points)



c. AgCl

d.  $\text{Fe}(\text{OH})_2$ 

e. CaS

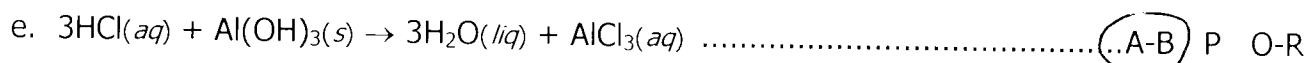
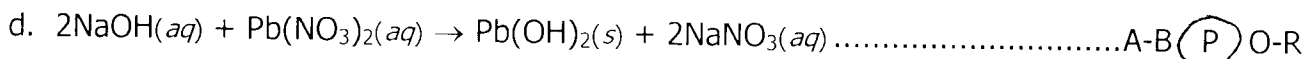
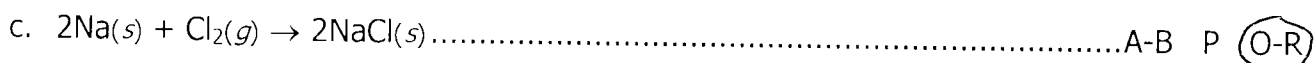
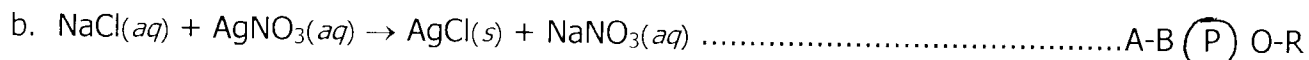
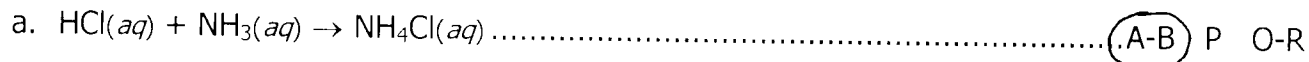
3. How many grams of NaCl must be dissolved in water to make 10.0 mL of 0.100 M sodium chloride solution? (3 points)

$$M = \frac{\text{mol}}{\text{L}} \quad 0.100 = \frac{\text{mol}}{0.0100\text{L}} ; \quad \text{mol} = 0.00100$$

$$0.00100 \text{ mol NaCl} \times \frac{58.44 \text{ g NaCl}}{\text{mol}} = \boxed{0.0584 \text{ g NaCl}}$$

Unless otherwise specified, each question is worth 5 points.

4. Identify each of the following reactions as acid-base, precipitation or oxidation-reduction:



5. Predict the products for each of the following reactions; if no reaction occurs, write "NR":  
(6 points total)

