Study Guide – Weekly Quiz #14 Name: _____
Chemistry
2 points **DUE AT QUIZ (WED., 4/23/14)** Date: _____ Hour: _____

Topics/concepts covered on quiz:

stoichiometry	mole stoichiometry	mass stoichiometry
coefficients	balancing equations	excess
states of matter	precipitates	use of the solubility chart
use of activity series	single displacement	double displacement
mole ratios	naming ionic compounds	formulas of ionic compounds

Practice questions:

1) What is stoichiometry? _____

_____

2) What do the coefficients in a balanced equation stand for? _____

_____

3) How many moles of water can be made from 3.72 moles of C_7H_8 and excess oxygen gas?

_____C_7H_8 + _____ O_2 —> _____ CO_2 + _____ H_2O [14.9 mol H_2O]

4) How many grams of copper (I) sulfide can be made from 3.60 g of copper (I) chloride and excess hydrogen sulfide? [2.89 g]

_____ CuCl + _____ H_2S —> _____ Cu_2S + _____ HCl

5) What mass of precipitate will be produced if 45.0 grams of cobalt (II) chloride react under wet conditions with excess sodium phosphate? [42.4 g]

_____ Na_3PO_4 + _____ $CoCl_2$ —> _____ $Co_3(PO_4)_2$ + _____ NaCl

6) Single Displacement Reactions:
- predict the products using a word equation
- if there will be no reaction, write "no reaction"

(a) magnesium + aluminum chloride ----->

(b) silver + copper (II) sulfate ----->

7) Double Displacement Reactions:
- predict the products using a word equation
- use the solubility of salts chart to determine states of matter
- if there is a precipitate formed, write out the equation in symbols and balance it

(a) aluminum chloride + sodium sulfide —>

(b) calcium hydroxide + hydrogen phosphate —>

8) Write out three mole ratios for the following balanced equation:

$C_9H_{20} + 14\ O_2$ —> $9\ CO_2 + 10\ H_2O$

9) Write out the formulas for the following ionic compounds:

(a) sodium fluoride _____ (c) copper (II) sulfide _____

(b) calcium nitrate _____ (d) aluminum iodide _____