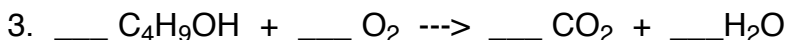
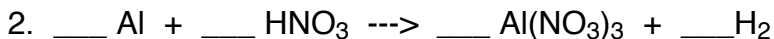


### WS 4.7.1 - Review

Balance these following chemical reactions:



Use dimensional analysis to determine the following:

4. How many moles are in 3.98 g of  $\text{CuSO}_4$ ?

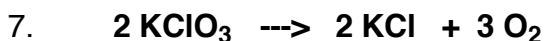
Ans \_\_\_\_\_

5. How many molecules are in 0.1029 moles of He?

Ans \_\_\_\_\_

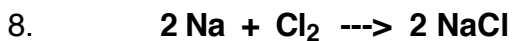
6.  $8.4 \times 10^{24}$  boron atoms weigh how many grams?

Ans \_\_\_\_\_



How many grams of  $\text{O}_2$  will be produced from 55.4 g of  $\text{KClO}_3$ ?

Ans \_\_\_\_\_



a. Starting with 30.1 g of Na and 22.4 g of  $\text{Cl}_2$ , how many grams of NaCl can be made?

Ans \_\_\_\_\_

b. Afterwards, 17.1 grams of NaCl are produced by the reaction. What is the % yield?

Ans \_\_\_\_\_

### WS 4.7.2 - Review

9a. A compound is 38.7% C, 16.1% H, and rest is N. What is its empirical formula?

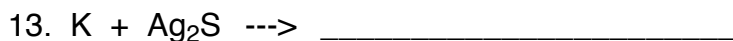
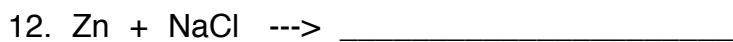
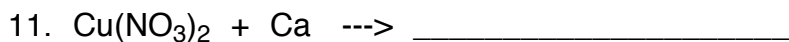
Ans \_\_\_\_\_

9b. The compound above has a molecular weight of 124 g/mol, determine its molecular formula.

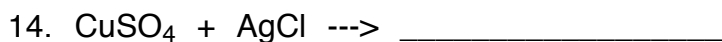
Ans \_\_\_\_\_

Use the activity series (at right) to predict whether the following reactions will occur...

If **YES**, then write the products -- If **NO**, then write 'N. R.' (no reaction)



Predict the products:



17. In the penny lab, you used an acid called \_\_\_\_\_ to react with a metal called \_\_\_\_\_ which was inside the penny. This \_\_\_\_\_ replacement reaction produced two substances: \_\_\_\_\_ gas and zinc \_\_\_\_\_.

18. Suppose you made a Micro-Rocket with butane ( $\text{C}_4\text{H}_{10}$ ) as the fuel. What is the correct ratio of fuel to  $\text{O}_2$ ?

Li
K
Ca
Na
Mg
Al
Mn
Zn
Cr
Fe
Cd
Co
Ni
Sn
Pb
H
Cu
Hg
Ag
Pt
Au