Stoichiometry: Mole Ratios

1. Balance Equation: \_\_\_Al + \_\_\_O2  \_\_\_Al2O3

Reaction Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mole Ratio of Al: Al2O3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Balance Equation: \_\_ C2H6+ \_\_\_ O2\_\_\_CO2 + \_\_\_H2O

Reaction Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mole Ratio of O2: H2O = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Balance Equation: \_\_\_KClO3 \_\_\_KCl +\_\_\_O2

Reaction Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mole Ratio of KClO3:KCl = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Balance Equation: \_\_\_Al + \_\_\_Fe2O3 \_\_\_Al2O3 + \_\_\_Fe

Reaction Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mole Ratio of Al: Fe = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Balance Equation: \_\_ NaCl + \_\_ H2SO4  \_\_ Na2SO4+ \_\_ HCl

Reaction Type: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mole Ratio of NaCl: HCl = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. A balanced equation representing a chemical reaction can be written using  
(1) chemical formulas and mass numbers  
(2) chemical formulas and coefficients  
(3) first ionization energies and mass numbers  
(4) first ionization energies and coefficients

7. Given the balanced equation representing a reaction: F2(g) + H2(g) ==> 2HF(g)  
What is the mole ratio of H2(g) to HF(g) in this reaction?  
(1) 1:1      (3) 2:1  
(2) 1:2      (4) 2:3