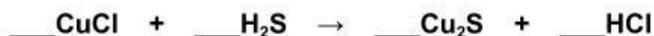


## Honors Stoichiometry Practice

### 1. Balance the following equation:



a. How many moles of copper(I) sulfide will be formed when 4.5 moles of copper(I) chloride react with an excess of  $\text{H}_2\text{S}$ ? (This problem is a \_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

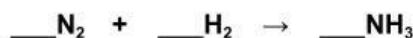
b. How many grams of  $\text{Cu}_2\text{S}$  are going to be produced by the reaction of 120g of  $\text{H}_2\text{S}$ ? (This problem is a \_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

c. How many formula units of HCl will be formed by the reaction of 3 moles of  $\text{H}_2\text{S}$  with an excess of copper(I) chloride? (This problem is a \_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

### 2. Balance the following equation:



a. What mass of ammonia will be produced if 50 Liters of hydrogen gas reacts with an excess of nitrogen gas? (This problem is a \_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

b. How many moles of nitrogen will be needed to react with 10 moles of hydrogen? (This problem is a \_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

c. How many moles of hydrogen must react to form 200g of ammonia? (This problem is a \_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

3. Balance the following equation:



a. How many moles of potassium chloride will be produced along with 115L of oxygen gas?  
(This problem is a \_\_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

b. What mass of  $\text{KClO}_3$  will be needed to produce 200g of KCl? (This problem is a \_\_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

c. How many moles of oxygen gas will be produced if 20 moles of potassium chlorate decompose?  
(This problem is a \_\_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

4. Balance the following equation:  $\text{C}_8\text{H}_{18} + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$

a. What volume of water vapor would be produced by the reaction of 14 moles of octane?

(This problem is a \_\_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

b. How many moles of carbon dioxide will be produced if 50 moles of oxygen gas reacts with an excess of octane?

(This problem is a \_\_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_

c. What mass of octane would have to react in order to produce  $3.4 \times 10^{24}$  molecules of water?

(This problem is a \_\_\_\_ step problem!)

**ANSWER:** \_\_\_\_\_