$\qquad$

Stoichiometry Problem Guidelines:

1. $\qquad$ the equation
2. convert to $\qquad$ of $\qquad$ substance
3. MAKE THE $\qquad$ USING $\qquad$ FROM BALANCED EQUATION
4. convert to $\qquad$

## Problem Set One

## Limiting Reactant

$\qquad$ used up $\qquad$ in a $\qquad$ reaction.

## Excess Reactant

$\qquad$ that is not used up in a chemical $\qquad$

Ex. Problem:
When $\mathrm{FeCl}_{3}$ reacts with $\mathrm{O}_{2}, \mathrm{Fe}_{2} \mathrm{O}_{3}$ and $\mathrm{Cl}_{2}$ are produced. If 4.0 moles of $\mathrm{FeCl}_{3}$ and 4.0 moles of $\mathrm{O}_{2}$ are mixed, how many grams of $\mathrm{Fe}_{2} \mathrm{O}_{3}$ will be produced?

$$
\rightarrow
$$

(Hint: Work two separate problems, using one reactant at a time.)
(Hint: Answer will be the (smaller, larger) amount of product.)
What is the limiting reactant?
What is the excess reactant?

Problem Set Two (Work on back.)

> The Chemistry Quiz CR1. CR2. 3. 3.

CHEMISTRY: A Study of Matter

