Stoichiometry Mole Map:

Formulas:

\[
\text{percent yield} = \frac{\text{actual yield}}{\text{theoretical yield}} \times 100
\]

\[
\text{percent error} = \frac{\text{actual} - \text{theoretical}}{\text{theoretical}} \times 100
\]

Reminders:

To determine which is the limiting reactant, you must calculate the theoretical yield (amount of product that would be produced) from every reactant. The reactant that produces the least product is the limiting reactant. All other reactants are excess reactants.

To find out the theoretical yield (how much product can be produced), calculate from the amount of the limiting reactant that you have.

Steps to solve most problems in this chapter:

1. Write the balanced reaction
2. Change to moles of known substance using menu (sometimes not needed)
3. Change to moles of unknown substance using mole ratio
4. Change to whatever the problem asks for (sometimes not needed)