Name: $\qquad$
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## Stoichiometry Practice: Get Stoiched!!!

## Steps to get Stoiched!

1. Balance the chemical equation
2. Put the quantity (with units!) that you know above the element/compound in the chemical equation.
3. Put an $x$ (with units!) above the element/compound that you are looking for in the chemical equation.
4. If not already in moles, convert the known quantity to moles.
5. Determine the mole ratio and convert to the new element/compound.
6. If necessary convert from moles back to grams (depending on what the problem is asking for).

## Practice:

1. How many grams of water would be produced from 60.0 grams of $\mathrm{H}_{2}$ and an excess of $\mathrm{O}_{2}$ ?
$\qquad$ $\mathrm{H}_{2}+$ $\qquad$ $\mathrm{O}_{2} \rightarrow$ $\qquad$ $\mathrm{H}_{2} \mathrm{O}$
2. How many grams of phosphoric acid $\left(\mathrm{H}_{3} \mathrm{PO}_{4}\right)$ are required to react to produce 15.0 moles of magnesium phosphate?

$$
\ldots \mathrm{H}_{3} \mathrm{PO}_{4}+\ldots \ldots \mathrm{Mg}(\mathrm{OH})_{2} \rightarrow \ldots \mathrm{H}_{2} \mathrm{O}+\ldots \ldots \mathrm{Mg}_{3}\left(\mathrm{PO}_{4}\right)_{2}
$$

3. How many moles of $\mathrm{NH}_{3}$ will be produced with 60 grams of $\mathrm{H}_{2}$ and an excess of $\mathrm{N}_{2}$ ?

$$
\ldots \mathrm{N}_{2}+\ldots \ldots \mathrm{H}_{2} \rightarrow \ldots \mathrm{NH}_{3}
$$

4. How many moles of lithium are required to react to produce 5.14 moles of lithium chloride?

$$
\ldots \ldots \mathrm{Li}+\ldots \mathrm{AlCl}_{3} \rightarrow \ldots \quad \mathrm{Al}+\ldots \ldots \mathrm{LiCl}
$$

5. How many grams of ammonia $\left(\mathrm{NH}_{3}\right)$ are required to react with excess hydrochloric acid $(\mathrm{HCl})$ to produce 52 grams of ammonium chloride?
$\qquad$ $\mathrm{NH}_{3}+$ $\qquad$ $\mathrm{HCl} \rightarrow$ $\qquad$ $\mathrm{NH}_{4} \mathrm{Cl}$
