

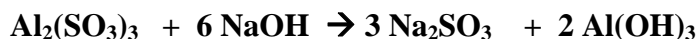
## Limiting Reagent Worksheet #1

1. Given the following reaction: (Balance the equation first!)



- If you start with 14.8 g of  $\text{C}_3\text{H}_8$  and 3.44 g of  $\text{O}_2$ , determine the limiting reagent
- determine the number of moles of carbon dioxide produced
- determine the number of grams of  $\text{H}_2\text{O}$  produced

2. Given the following equation:



- If 10.0 g of  $\text{Al}_2(\text{SO}_3)_3$  is reacted with 10.0 g of  $\text{NaOH}$ , determine the limiting reagent
- Determine the number of moles of  $\text{Al}(\text{OH})_3$  produced
- Determine the number of grams of  $\text{Na}_2\text{SO}_3$  produced

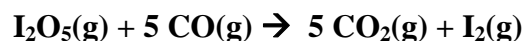
3. Given the following equation:



- If 25.4 g of  $\text{Al}_2\text{O}_3$  is reacted with 10.2 g of  $\text{Fe}$ , determine the limiting reagent
- Determine the number of moles of  $\text{Al}$  produced
- Determine the number of grams of  $\text{Fe}_3\text{O}_4$  produced

## Limiting Reagent Worksheet #2

1. Consider the reaction



80.0 grams of diiodine pentoxide,  $\text{I}_2\text{O}_5$ , reacts with 28.0 grams of carbon monoxide,  $\text{CO}$ . Determine the mass of iodine  $\text{I}_2$ , which could be produced?

2. Zinc and sulphur react to form zinc sulphide according to the equation.



If 25.0 g of zinc and 30.0 g of sulphur are mixed,

- Which chemical is the limiting reactant?
  - How many grams of  $\text{ZnS}$  will be formed?
3. Which element is in excess when 3.00 grams of  $\text{Mg}$  is ignited in 2.20 grams of pure oxygen? What mass of  $\text{MgO}$  is formed?
4. How many grams of  $\text{Al}_2\text{S}_3$  are formed when 5.00 grams of  $\text{Al}$  is heated with 10.0 grams  $\text{S}$ ?
5. When  $\text{MoO}_3$  and  $\text{Zn}$  are heated together they react



What mass of  $\text{ZnO}$  is formed when 20.0 grams of  $\text{MoO}_3$  is reacted with 10.0 grams of  $\text{Zn}$ ?