

# Identification of Limiting Reactant

**Q#1:** The reaction between NaOH and H<sub>2</sub>SO<sub>4</sub> produces Na<sub>2</sub>SO<sub>4</sub> and H<sub>2</sub>O as products. If 4 grams of NaOH reacts with 9.8 grams of H<sub>2</sub>SO<sub>4</sub> then find the limiting reactant.

2NaOH + H <sub>2</sub> SO <sub>4</sub> → Na <sub>2</sub> SO <sub>4</sub> + 2H <sub>2</sub> O		
1. Moles of reactants	$NaOH = \frac{4}{40} =$	$H_2SO_4 = \frac{9.8}{98} =$
2. Divide moles on coefficient of reactant.	$NaOH = \frac{1}{2}$	$H_2SO_4 = \frac{1}{1}$
3. Limiting Reactant		

**Q#2:** The reaction between Hydrogen and Oxygen produces water.

- Balance the Chemical Equation for the reaction.
- If 0.8 grams of H<sub>2</sub> reacts with 1.6 grams of O<sub>2</sub> then find the limiting reactant.

H <sub>2</sub> + O <sub>2</sub> → H <sub>2</sub> O		
1. Moles of reactants	$Hydrogen = \frac{0.8}{2} =$	$Oxygen = \frac{1.6}{32} =$
2. Divide moles on coefficient of reactant.	$Hydrogen = -$	$Oxygen = - =$
3. Limiting Reactant		