

Balancing Chemical Equations (handout #1) name: _____

Balance perfectly, name the type of reaction (Synth, Decomp, SR, DR, or Comb.) Many dashes will be "ones" and we don't write ones in chem, we are Number 1!

Page 1	Type of Reaction
$\underline{\hspace{1cm}} \text{H}_{2(\text{G})} + \underline{\hspace{1cm}} \text{O}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{H}_2\text{O}_{(\text{G})}$	
$\underline{\hspace{1cm}} \text{Sr}(\text{OH})_{2(\text{AQ})} + \underline{\hspace{1cm}} \text{Li}_2\text{CrO}_{4(\text{AQ})} \rightarrow \underline{\hspace{1cm}} \text{SrCrO}_{4(\text{S})} + \underline{\hspace{1cm}} \text{LiOH}_{(\text{AQ})}$	
$\underline{\hspace{1cm}} \text{ZnBr}_{2(\text{AQ})} + \underline{\hspace{1cm}} \text{Al}_{(\text{S})} \rightarrow \underline{\hspace{1cm}} \text{AlBr}_{3(\text{AQ})} + \underline{\hspace{1cm}} \text{Zn}_{(\text{S})}$	
$\underline{\hspace{1cm}} \text{C}_{(\text{S})} + \underline{\hspace{1cm}} \text{S}_{8(\text{S})} \rightarrow \underline{\hspace{1cm}} \text{CS}_{2(\text{S})}$	
$\underline{\hspace{1cm}} \text{K}_{(\text{S})} + \underline{\hspace{1cm}} \text{Ni}(\text{C}_2\text{H}_3\text{O}_2)_{3(\text{AQ})} \rightarrow \underline{\hspace{1cm}} \text{KC}_2\text{H}_3\text{O}_{2(\text{AQ})} + \underline{\hspace{1cm}} \text{Ni}_{(\text{S})}$	
$\underline{\hspace{1cm}} \text{N}_{2(\text{G})} + \underline{\hspace{1cm}} \text{O}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{N}_2\text{O}_{5(\text{G})}$	
$\underline{\hspace{1cm}} \text{P}_{(\text{S})} + \underline{\hspace{1cm}} \text{Cl}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{PCl}_{5(\text{S})}$	
$\underline{\hspace{1cm}} \text{Pb}(\text{NO}_3)_{2(\text{AQ})} + \underline{\hspace{1cm}} \text{LiCl}_{(\text{AQ})} \rightarrow \underline{\hspace{1cm}} \text{PbCl}_{2(\text{S})} + \underline{\hspace{1cm}} \text{LiNO}_{3(\text{AQ})}$	
$\underline{\hspace{1cm}} \text{Al}_{(\text{S})} + \underline{\hspace{1cm}} \text{S}_{8(\text{S})} \rightarrow \underline{\hspace{1cm}} \text{Al}_2\text{S}_{3(\text{S})}$	
$\underline{\hspace{1cm}} \text{H}_2\text{O}_{(\text{L})} \rightarrow \underline{\hspace{1cm}} \text{H}_{2(\text{G})} + \underline{\hspace{1cm}} \text{O}_{2(\text{G})}$	
$\underline{\hspace{1cm}} \text{Mg}_{(\text{S})} + \underline{\hspace{1cm}} \text{Cl}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{MgCl}_{2(\text{S})}$	
$\underline{\hspace{1cm}} \text{C}_{15}\text{H}_{32(\text{S})} + \underline{\hspace{1cm}} \text{O}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{CO}_{2(\text{G})} + \underline{\hspace{1cm}} \text{H}_2\text{O}_{(\text{G})}$	
$\underline{\hspace{1cm}} \text{C}_6\text{H}_6(\text{G}) + \underline{\hspace{1cm}} \text{O}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{CO}_{2(\text{G})} + \underline{\hspace{1cm}} \text{H}_2\text{O}_{(\text{G})}$	
$\underline{\hspace{1cm}} \text{N}_{2(\text{G})} + \underline{\hspace{1cm}} \text{H}_{2(\text{G})} \rightarrow \underline{\hspace{1cm}} \text{NH}_{3(\text{G})}$	

Page 2	Type of Reaction
$\underline{\hspace{1cm}} \text{Li}_{(s)} + \underline{\hspace{1cm}} \text{TiCl}_{3(AQ)} \rightarrow \underline{\hspace{1cm}} \text{LiCl}_{(AQ)} + \underline{\hspace{1cm}} \text{Ti}_{(s)}$	
$\underline{\hspace{1cm}} \text{C}_2\text{H}_{6(G)} + \underline{\hspace{1cm}} \text{O}_{2(G)} \rightarrow \underline{\hspace{1cm}} \text{CO}_{2(G)} + \underline{\hspace{1cm}} \text{H}_2\text{O}_{(G)}$	
$\underline{\hspace{1cm}} \text{Rb}_{(s)} + \underline{\hspace{1cm}} \text{P}_{(s)} \rightarrow \underline{\hspace{1cm}} \text{Rb}_3\text{P}_{(s)}$	
$\underline{\hspace{1cm}} \text{CH}_{4(G)} + \underline{\hspace{1cm}} \text{O}_{2(G)} \rightarrow \underline{\hspace{1cm}} \text{CO}_{2(G)} + \underline{\hspace{1cm}} \text{H}_2\text{O}_{(G)}$	
$\underline{\hspace{1cm}} \text{Na}_{(s)} + \underline{\hspace{1cm}} \text{I}_{2(s)} \rightarrow \underline{\hspace{1cm}} \text{NaI}_{(s)}$	
$\underline{\hspace{1cm}} \text{Rb}_{(s)} + \underline{\hspace{1cm}} \text{S}_{8(s)} \rightarrow \underline{\hspace{1cm}} \text{Rb}_2\text{S}_{(s)}$	
$\underline{\hspace{1cm}} \text{Al}(\text{HCO}_3)_{3(AQ)} + \underline{\hspace{1cm}} \text{CaCrO}_{4(AQ)} \rightarrow \underline{\hspace{1cm}} \text{Al}_2(\text{CrO}_4)_{3(s)} + \underline{\hspace{1cm}} \text{Ca}(\text{HCO}_3)_{2(AQ)}$	
$\underline{\hspace{1cm}} \text{Li}_{(s)} + \underline{\hspace{1cm}} \text{SnCl}_{4(AQ)} \rightarrow \underline{\hspace{1cm}} \text{LiCl}_{(AQ)} + \underline{\hspace{1cm}} \text{Sn}_{(s)}$	
$\underline{\hspace{1cm}} \text{NH}_{3(G)} \rightarrow \underline{\hspace{1cm}} \text{N}_{2(G)} + \underline{\hspace{1cm}} \text{H}_{2(G)}$	
$\underline{\hspace{1cm}} \text{Cs}_{(s)} + \underline{\hspace{1cm}} \text{N}_{2(G)} \rightarrow \underline{\hspace{1cm}} \text{Cs}_3\text{N}_{(s)}$	
$\underline{\hspace{1cm}} \text{CaCO}_{3(s)} \rightarrow \underline{\hspace{1cm}} \text{CaO}_{(s)} + \underline{\hspace{1cm}} \text{CO}_{2(G)}$	
$\underline{\hspace{1cm}} \text{C}_{10}\text{H}_{22(s)} + \underline{\hspace{1cm}} \text{O}_{2(G)} \rightarrow \underline{\hspace{1cm}} \text{CO}_{2(G)} + \underline{\hspace{1cm}} \text{H}_2\text{O}_{(G)}$	
$\underline{\hspace{1cm}} \text{Mn}_{(s)} + \underline{\hspace{1cm}} \text{ZnSO}_{4(AQ)} \rightarrow \underline{\hspace{1cm}} \text{Mn}_2(\text{SO}_4)_{7(AQ)} + \underline{\hspace{1cm}} \text{Zn}_{(s)}$	
$\underline{\hspace{1cm}} \text{C}_3\text{H}_{8(G)} + \underline{\hspace{1cm}} \text{O}_{2(G)} \rightarrow \underline{\hspace{1cm}} \text{CO}_{2(G)} + \underline{\hspace{1cm}} \text{H}_2\text{O}_{(G)}$	