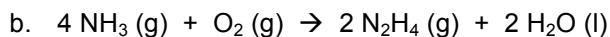
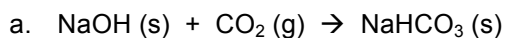


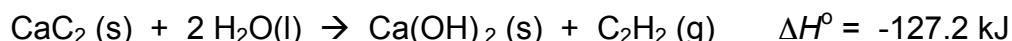
Name: _____ Per: _____ Date _____

AP Chemistry: *Enthalpy Cramsheat*

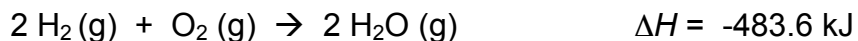
1. (Enthalpy of formation) Using values from Appendix 1, calculate the value of ΔH° for each of the following reactions (ΔH°_f for NaHCO_3 is -947.7kJ/mol) :



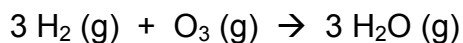
2. (Enthalpy of formation) Calcium carbide, CaC_2 , reacts with water to form acetylene, C_2H_2 , and Ca(OH)_2 . From the following enthalpy of reaction data and data in Appendix 1, calculate ΔH° for $\text{CaC}_2 \text{(s)}$



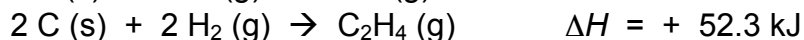
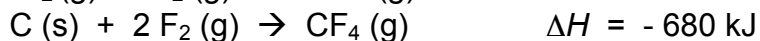
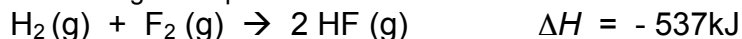
3. (Hess's Law) From the following heats of reaction:



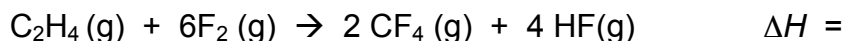
calculate the heat of the reaction



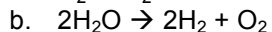
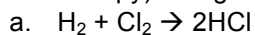
4. (Hess's Law) From the following enthalpies of reaction:



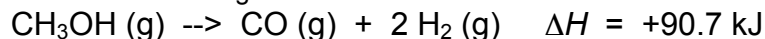
Calculate the ΔH for the reaction of ethylene with F_2 .



5. (Bond Enthalpy) Using Table 8.4, determine the ΔH for the following:



6. (Enthalpy Stoich) Consider the following reaction:



- a. Is the reaction exothermic or endothermic?

- b. Calculate the amount of heat transferred when 45.0 g of $\text{CH}_3\text{OH (g)}$ are decomposed by this reaction at constant pressure.