CHEM105 Announced Quiz 6

1. Use bond enthalpies to estimate the reaction enthalpy for:

$$N_2(g) + 3\ F_2(g) \rightarrow 2\ NF_3\ (g)$$

2. A 10.0 g piece of copper at 100°C was placed into a container having negligible heat capacity containing 60.0 mL of water at 25.0°C. Determine the final temperature of the water. The heat capacity of copper is 0.38 J / g - °C.

3. The enthalpy of combustion for propane, C_3H_8, is 2220 kJ / mole.

   a. Write a balanced chemical equation for the combustion of propane.

   b. Calculate the amount of heat released from the combustion of 22.0 grams of propane.