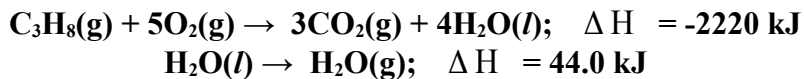
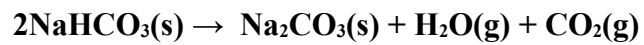


CHM 110 – Heat – Practice Problems**Solve the problems.**

1) Find the mass of propane (C_3H_8 , FW = 44.09 g/mol) required to heat 1.00 gal (3.78 L) of water from 25.0 °C to 100.0 °C. Then, find the mass of propane required to vaporize the water at 100.0 °C. Assume the density of water at 25.0 °C is 1.00 g/ml.



2) Sodium bicarbonate thermally decomposes to form sodium carbonate, water, and carbon dioxide.



Calculate the enthalpy change of the decomposition of 42.5 g of solid NaHCO_3 .

3) Calculate the enthalpy change for the combustion of 175 L of H₂S gas at 25 °C and 1.00 atm pressure. The thermochemical equation for the process is given below.

