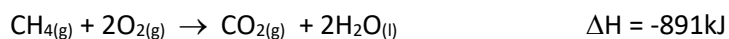


Nombre: _____

Answer each of the following questions to the best of your ability. Be sure to use the correct number of significant figures and units wherever appropriate.

1. (5 points) Copper shot ($C = 0.386 \text{ Jg}^{-1}\text{C}^{-1}$) with a mass of 100.0g and an initial temperature of 150.0C was added to 200.0g of water ($C = 4.184 \text{ Jg}^{-1}\text{C}^{-1}$) at an initial temperature of 24.2C. Assuming no heat or material is lost to the surroundings, what is the final temperature of the mixture?

2. (5 points) Consider the following reaction:



If 1.00L of methane is burned at 740.0 Torr and 25 C, what is the enthalpy change?
($R = 0.08206 \text{ L atm mol}^{-1}\text{K}^{-1}$ and $1\text{atm} = 760\text{Torr}$)