

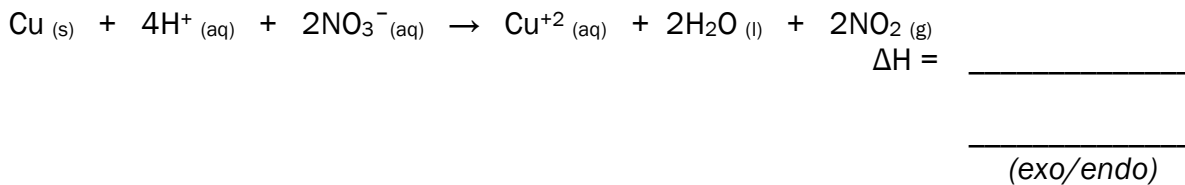
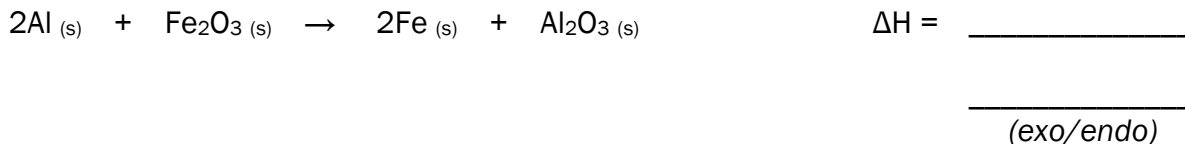
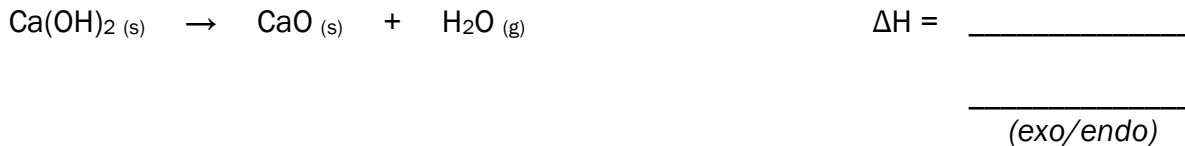
# CHEMISTRY HOMEWORK SHEET

NAME \_\_\_\_\_

25	51
<b>Mn</b>	Mn
54.9380	25 protons 25 electrons 26 neutrons



Calculate the  $\Delta H$  for each of the following reactions, and indicate whether the reaction is exothermic or endothermic. Show all work, units, and sig figs for credit.



Find the change in heat energy when 45.00 g of copper cools from 225 °C to 22 °C . The  $C_p$  of copper is 0.385 J/g•°C.

Calcium sulfate gives off 17.8 kJ/mol when it is dissolved. How many Joules of heat are given off when 0.384 moles of  $\text{CaSO}_4$  is dissolved?

Use the above answer to determine the  $\Delta T$  when the 0.384 moles (*change to grams*) of  $\text{CaSO}_4$  are dissolved in water. The  $C_p$  of  $\text{CaSO}_4$  is 99.7 J/g•°C.

A mass of water was heated with 41,840 Joules, raising its temperature from 45.0 °C to 49.5 °C. Find the mass of the water. The  $C_p$  of water is 4.180 J/g•°C.