

Name: \_\_\_\_\_

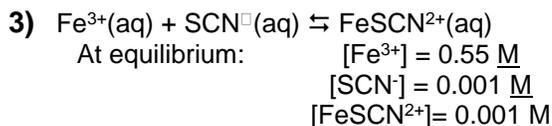
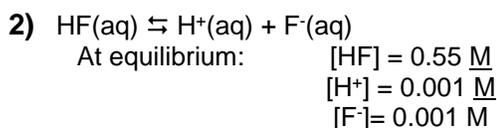
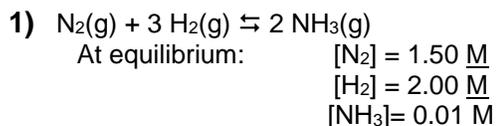
Period: \_\_\_\_\_

Seat#: \_\_\_\_\_

**Directions:** Show all work in a way that would earn you credit on the AP Test! This is always the rule! Some answers are provided at the end in italics and underlined. If you need more space, use binder paper and staple to your worksheet.

**For the following three reactions:**

- Write the  $K_{eq}$  expression in terms of concentration,  $K_c$ .
- Given the equilibrium concentrations, state whether each equilibrium is product-favored, reactant-favored, or fairly even ( $[products] \approx [reactants]$ ).
- Calculate the value of  $K_c$ .



**Summarize:**

Fill in the blanks with product-favored, reactant-favored, and approximately equal

$K_c$	state of equilibrium
$K_c \gg 1$	
$K_c \ll 1$	
$K_c \approx 1$	

- 4) Knowing that pure water has a density of 1g/1mL calculate the mass of 1.00 Liter of water.

Calculate the number of moles in 1.00 L of  $H_2O$ .

What is the concentration (M) of water in water?

At this temperature, can you get more moles of water into this Liter of water?

The  $[H_2O]$  \_\_\_\_\_ (is / is not) constant.

**Remember!**

Since the concentrations of solids and liquids are constant, they are incorporated into the equilibrium constant,  $K_{eq}$ . That means, just leave them out of the  $K_c$  or  $K_p$  expression. Only include (g) and (aq)!

- 5) Write equilibrium expressions for each of the rxns:

