1. Enough A, B, C and D are are placed in a container so that their concetrations would be.5M.The equilibrium system is as follows. A + B <---> C + D The reaction has a change in enthalpy of +250 KJ. Keq is .25

a. Is the system at equilibrium?
b. If not, which way will the reaction shift to attain equilibrium?
b. What will happen to the value of the equilibrium constant if the temperature is increased?

2. For the system A + B <---> 2C the equilibrium constant is .25. If 2.0 moles of A and 2.0 moles of B are placed in a 4.0 liter container at 25 C, what will be the equilibrium concentrations of all species?

3. USE THE FOLLOWING DATA FOR THE REACTION: A + B ----> C

	Conc. A(M)	Conc. B(M)	RateM/s
Exp. 1	2	2	4
Exp. 2	2	4	32
Exp. 3	10	4	800.0

a. Write the rate law for this reaction.
b. Solve for K--include units.
c. Calculate the value of R if A is .20 M and B is .40 M.
d. What is the overall reaction order?

An equilibrium system is represented according to the following equation: $A_{2(g)}$ + $B_{2(g)}$ <-------> 2AB(g)
The Keq is .4600, and .2000 moles of A_2 and .3000 moles of B_2 are placed in a **6.000 liter** container with .4000 moles of AB.

4. What quantity of (AB) reacts or is produced?
a. x b. 2x c. 3x d. any of these

5. If 3x of AB were produced(THIS MAYOR NOT BE WHAT ACTUALLY HAPPENS), the quantity at equilibrium would be:
a. .067 + 3x b. .067 - 3x c. .067 - x

6. If the amount of A_2 which reacts or is produced is defined as x, then x is equal to:
a. -.01468 b. -.265 c. + .01468 d. + .07182
e. none of these

7. The concentration of AB at equilibrium is:
a. .09636 M b. .08168 M c. .04768 M d..03764 M
e. none of these

8. The concentration of A2 at equilibrium is:
a. .09636 M b. .08168 M c .04768 M d. .03764 M
e. none of these

9. Which way did the equilibrium shift?
a. left b. right c. there was no change