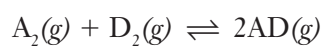


CALCULATING THE EQUILIBRIUM CONCENTRATION OF ALL SPECIES

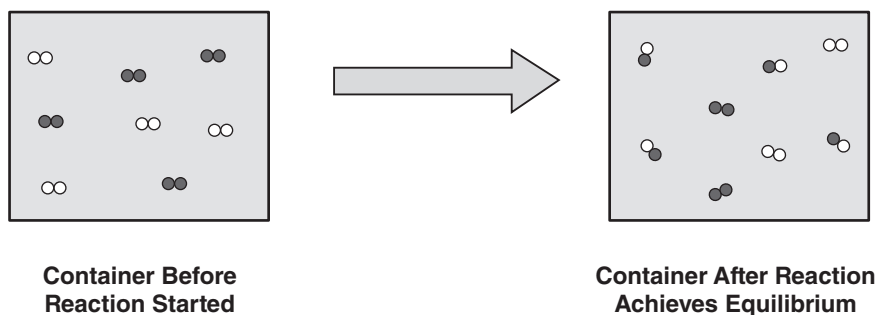
NAME _____

SECTION _____

1. Below are 1.0 L containers for the initial and equilibrium condition for the reaction,

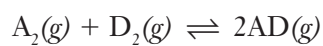


Calculate the magnitude of the equilibrium constant for the reaction.



Show work:

2. Set up the ICE table for the following general chemical equation. (Assume the reaction proceeds from left to right to establish equilibrium.)



3. The equilibrium constant, K_p , for the reaction



is 0.0202. If the initial partial pressure of $\text{H}_2 = \text{I}_2 = 0.350$ atm, calculate the equilibrium partial pressures of all species.

4. The equilibrium constant, K_c , for the reaction



is 33.3 at 760 °C. If 0.400 mol of PCl_5 are placed in a 2.00 liter container, calculate the equilibrium concentrations of all species.

5. The equilibrium constant, K_c , for the reaction



is 33.3 at 760 °C. If 0.400 mol of PCl_5 and 1.0 mol of Cl_2 are placed in a 2.00 liter container, calculate the equilibrium concentrations of all species.