Find Equilibrium concentrations given K

1. At 100°C, Kc = 0.135 for the following reaction: 3 H2 (g) + N2 (g) 🡨🡪 2 NH3 g). In a reaction mixture at equilibrium [NH3] = 0.030 M and [N2] = 0.50 M. Determine the [H2] in the mixture.
2. Assume that the flask in the question above has a volume of 1.0 L. Determine the total pressure in the flask at equilibrium as well as the partial pressure of each gas and Kp for the reaction.
3. 
4. 
5. 
6. The equilibrium constant for the reaction H2 + F2 <----> 2HF has the value K = 2100 at a particular temperature. When analyzed at equilibrium the concentrations of H2 and F2 are found to be 0.0021 M. What is the concentration of HF at equilibrium?