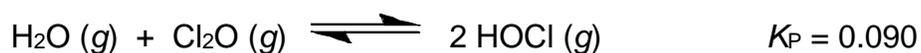


Quiz 8 – Nov. 13, 2019

1. (5 pts) Which of the following is/are true **at equilibrium**? (Circle all that apply.)

- a. The rates of the forward and reverse reactions are equal.
- b. $\Delta G < 0$
- c. The amounts of reactants and products are equal
- d. None of the above

2. (20 pts) The reaction shown below has an equilibrium constant $K_P = 0.090$ at 25 °C.



- a. Write an expression for K_P .

- b. Based on the K_P value given, **do you expect reactants or products to dominate** at equilibrium? **Explain** in a few words.

- c. Suppose that you combine 0.500 atm of H_2O with 0.500 atm of Cl_2O in an empty container. Please calculate the **partial pressure of each of the three gases at equilibrium**.