

1. Write the equilibrium constant expression for this reaction. \_\_\_\_\_

The following changes are introduced at time  $T_f$ . Determine which situation described in the box that follows best describes how the graph will be changed to the right of  $T_f$ . Write the letter of your choice in the space provided and describe how Le Châtelier's principle predicts the result you have chosen.

2. Temperature of the system is increased \_\_\_\_\_
- \_\_\_\_\_

3. Pressure of the system is increased \_\_\_\_\_
- \_\_\_\_\_

- |   |   |
|---|---|
| a. The HI curve rises, the $I_2$ curve drops, the $H_2$ curve remains the same. | e. The $H_2$ and $I_2$ curves rise, the HI curve drops.                                     |
| b. The HI curve drops, the $I_2$ curve rises, the $H_2$ curve drops.            | f. The $H_2$ and $I_2$ curves drop, the HI curve rises.                                     |
| c. The HI curve rises, the $I_2$ curve rises, the $H_2$ curve drops.            | g. After an initial rise, the $I_2$ curve drops, the $H_2$ curve drops, the HI curve rises. |
| d. The curves for all three components rise.                                    | h. All curves remain the same.  |

### **Critical Thinking**

Make a concept map beginning with the term **equilibrium constant expression**. Complete the map with terms from Chapter 18 of your text.