Name _____ Date _____ Class _____

18.2 REVERSIBLE REACTIONS AND EQUILIBRIUM

Section Review

Objectives

- Describe how the amounts of reactants and products change in a chemical system at equilibrium
- Identify three stresses that can change the equilibrium position of a chemical system
- Explain what the value of K_{eq} indicates about the position of equilibrium

Vocabulary

- reversible reaction
- chemical equilibrium
- equilibrium position
- Le Châtelier's principle
- equilibrium constant (K_{eq})

Key Equation

- $K_{eq} = \dfrac{[C]^c \times [D]^d}{[A]^a \times [B]^b}$

  When $aA + bB \rightleftharpoons cC + dD$

Part A Completion

Use this completion exercise to check your understanding of the concepts and terms that are introduced in this section. Each blank can be completed with a term, short phrase, or number.

In principle, all reactions are __1__. That is, reactants go to __2__ in the __3__ direction, and products go to __4__ in the __5__ direction.

The point at which the rate of conversion of __6__ to __7__ and vice versa is equal is the __8__ position. The __9__ of a reversible reaction, K_{eq}, is useful for determining the position of equilibrium. It is essentially a measure of the __10__ of products to reactants at equilibrium. The direction of change in the position of equilibrium may be predicted by applying __11__ principle.

1. reversible
2. products
3. forward
4. reactants
5. reverse
6. reactants
7. products
8. equilibrium
9. equilibrium constant
10. ratio
11. LeChatelier's