

REVIEW

5 SECTION 5.4**Rates of Change**

1. **State** Le Chatelier's principle.

2. **Describe** two ways you could make table salt dissolve faster in water.

3. **Predict** the shift of equilibrium for each of the following conditions in the following reaction involving gaseous reactants and products: $\text{N}_2 + 3\text{H}_2 \rightleftharpoons 2\text{NH}_3 + \text{heat}$

a. NH_3 is added to the reaction.

b. NH_3 is removed from the reaction.

c. The pressure is increased.

d. The temperature is decreased.

4. **Predict** how each of the following changes will affect the following reaction involving gaseous reactants and products: $2\text{NO}_2 \rightleftharpoons \text{N}_2\text{O}_4 + \text{heat}$

a. raising the temperature

b. increasing the pressure

c. removing N_2O_4 from the equilibrium mixture

d. adding NO_2 to the equilibrium mixture
