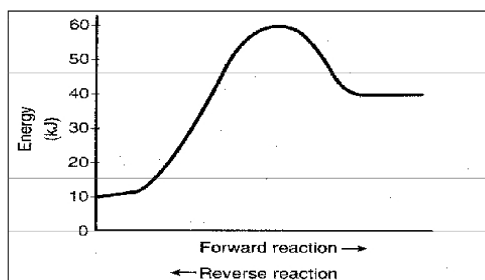


Reaction Rates Worksheet**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

**Figure 22-2**

1. What is the activation energy for the forward reaction in Figure 22-2?
a. -20 kJ b. -50 kJ c. +50 kJ d. +20 kJ
2. How would the addition of a catalyst affect the activation energies of the forward and reverse reactions in Figure 22-2?
a. The activation energy of only the forward reaction would be lowered. b. Both activation energies would be lowered. c. Both activation energies would be raised. d. The activation energies would not be affected.
3. In Figure 22-2, how would the addition of a catalyst affect the energies of the reactants and products?
a. The energy of only the products would be lowered. b. The energy of only the reactants would be lowered. c. The energies of reactants and products would not be affected. d. The energy of both the reactants and products would be lowered.
4. What is the activation energy for the reverse reaction in Figure 22-2?
a. +50 kJ b. -20 kJ c. +20 kJ d. -50 kJ
5. Using Figure 22-2, what is the energy of the activated complex?
a. +60 kJ b. +30 kJ c. +20 kJ d. +40 kJ
6. What is the energy of the reactants of the forward reaction in Figure 22-2?
a. +10 kJ b. +30 kJ c. +40 kJ d. +60 kJ
7. What is the value of ΔH for the reverse reaction in Figure 22-2?
a. -30 kJ b. +20 kJ c. -20 kJ d. +30 kJ
8. What is the energy of the products of the forward reaction in Figure 22-2?
a. +10 kJ b. +60 kJ c. +30 kJ d. +40 kJ
9. In Figure 22-2, what is the value of ΔH for the forward reaction?
a. +20 kJ b. +30 kJ c. -20 kJ d. -30 kJ